# ADUSUMILLI GOPALAKRISHNAIAH & SUGAR CANE GROWERS SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165, KRISHNA Dt., A.P. (AUTONOMOUS)

# **DEPARTMENT OF COMPUTER SCIENCE**

2018-2019



# **BOARD OF STUDIES**

**Minutes of Meeting** 

11-04-2018

Minutes of the meeting of Board of Studies in Computer Science for I B.Sc.(MPCs, MCCs), B.Com.(C.A.) and Foundation Course of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10.30 A.M on 11-04-2018 in the Department of Computer Science.

Sri Ch. Mohan Babu ...

Presiding

### Members Present:

2)....S. Pallaceeller (Prof. S. Pallam Setty)

University Nominee

Academic

Council

Nominee

Academic

Nominee

Council

Member

Chairman

3).....( (P. L. Ramesh)

5)...... (T.Naga Prasada Rao)

6)...R. Songjerge Member (R. Sowjanya)

(S. Devi Sushma)

Member

Naga Malleswara Rao)

Member

Head, Department of Computer Science AG & SG Siddhartha Degree College of Arts & Science Vuyyuru-521165

Professor, Dept of Computer Science, Andhra University, Visakapatnam.

Head, Department of Computer Science, K.B. N. College Vijayawada.

Head, Department of Computer Science, P.B. Siddhartha College of Arts & Science, Vijayawada.

Lecturer in Computer Science AG & SG Siddhartha Degree College of Arts & Science Vuyyuru-521165

Lecturer in Computer Science AG & SG Siddhartha Degree College of Arts & Science Vuyyuru-521165

Lecturer in Computer Science AG & SG Siddhartha Degree College of Arts & Science Vuyyuru-521165

Lecturer in Computer Science AG & SG Siddhartha Degree College of Arts & Science Vuyyuru-521165

### Agenda for B.O.S Meeting.

- To recommend syllabi for I and II Semesters of I year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), II & III Semesters of II year B.Sc.(MCCs), B.Com.(C.A), & V & VI Semester of III year B.Com.(C.A) Courses under Choice Based Credit System With Effect From Academic Year 2018-19.
- To recommend the Model Question Papers, Lab programs list and Blue print of I and II Semesters of I year Degree B.Sc.(MPCs, MCCs.),B.Com (C.A.), II & III Semesters of II year B.Sc.(MCCs), II B.Com.(C.A), and V & VI Semester of III year B.Com.(C.A) Courses under Choice Based Credit System With Effect From Academic Year 2018-19.
- To recommend the Guidelines to be followed by the question paper setters in Computer Science for I and II Semesters of I year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), II & III Semesters of II year B.Sc.(MCCs), B.Com(C.A) V & VI Semester of III year B.Com.(C.A) Courses under Choice Based Credit System With Effect From Academic Year 2018-19.
- 4. To recommend any changes in the syllabi for I, II,III,IV,V& VI Semesters of I,II.III year Degree B.Sc.(MPCs) and B.Com.(C.A.).
- 5. To recommend any changes in the syllabi for I, II, III ,IV,V& VI Semesters of I ,II .III Degree B.Sc.(MPCs) and B.Com.(C.A.)
- 6. To recommend the teaching and evaluation methods to be followed under Autonomous status.
- 7. To recommend the certificate courses for all Computer Science and Non-Computer Science studentsAny suggestions regarding seminars, workshops, Guest lecturers to be organized.
- 8. To recommend the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG&SG Siddhartha Degree College of Arts & Science College, Vuyyuru.
- 9. To recommend the syllabus for III & IV semester of B.Sc MCCS

### Resolutions

- Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement syllabi for V and VI Semesters of III Year Degree B.Sc. (MPCs), B.Com. (C.A.) Courses under Choice Based Credit System with Effect From Academic Year 2017-18.
- 2) To recommend New course in Semester V with Course Code "COM-CSC-507" and Paper Title "Web Technologies" for B.COM(C.A)
- 3) Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement Model Question Papers, Lab Programs List and blue print for V and VI Semesters of III Year Degree B.Sc. (MPCs), B.Com. (C.A.) Courses under Choice Based Credit System with Effect from Academic Year 2017-18.
- 4) Discussed and recommended the guidelines to be followed by Question Paper Setters in Computer Science for V and VI Semesters of III Year Degree B.Sc. (MPCs), B.Com.(C.A.) Courses under Choice Based Credit System With Effect From Academic Year 2017-18.
- 5) Discussed and recommended the same syllabi without changes for I, II, III and IV Semesters of I &II Year Degree B.Sc. (MPCs), B.Com (C.A.) and Foundation Course for All Degree Courses under Choice Based Credit System with Effect from Academic Year 2017-18.
- 6) To recommend syllabi for V and VI Semesters of II year Degree B.Sc.(MPCS), B.Com (C.A.) Courses under Choice Based Credit System With Effect From Academic Year 2016-17
- 7) Discussed and recommended the teaching and evaluation methods for approval of Academic Council.
- 8) Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council. Discussed and recommended to conduct certificate courses for Computer Science and Non-Computer Science students separately.
- 9) Discussed and Recommend to introduce Value Added Course in "COMPILER DESIGN " with Course Code "CDVAC101" for II MPC'S.
- 10) It is resolved to introduce new program B.Sc MCCS from the Academic year 2017-18. The papers for I & II semester are the same as MPCS.
- 11) Resolved to introduce new syllabus in CSC-602CE, CSC-603CE in VI semester

ch. Helen

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18)

	COMPUT	ER SCIENCE	CSC-101C	2018-19	B.Sc.(MPCs, MCCs.)
SEM	ESTER – I	PAPER – I	Max. Marks 70Pa	ss Marks 28T	otal Hrs 60

### Syllabus: Computer Fundamentals & Photoshop NO. Of. Hours: 4 Credits:3

### **UNIT-I:**

Introduction to computers, characteristics and limitations of computer, Block diagram of computer, types of computers, uses of computers, computer generations. Number systems: binary, hexa and octal numbering system.

## **UNIT-II:**

Input and output devices: Keyboard and mouse, inputting data in other ways, Types ofSoftware: system software, Application software, commercial, open source, domain and freeware software, Memories: primary, secondary and cache memory. Windows basics: desktop, start menu, icons.

## Unit –III:

Introduction to Adobe Photoshop, Getting started with Photoshop, creating and saving a document in Photoshop, page layout and back ground, Photoshop program window-title bar, menu bar, option bar ,image window ,image title bar ,status bar, ruler ,paletts, tool box ,screen modes ,saving files ,reverting files, closing files.

### Unit –IV:

Images: working with images, image size and resolution, image editing, colour modes and adjustments, Zooming & Panning an Image, Rulers, Guides & Grids- Cropping & Straightening an Image, image backgrounds, making selections.

Working with tool box: working with pen tool, save and load selection-working with erasers-working with text and brushes-Colour manipulations: colour modes- Levels Curves - Seeing Colour accurately -Patch tool – Cropping-Reading your palettes - Dust and scratches- Advanced Retouching- smoothing skin.

## **Unit-V:**

**Layers:** Working with layers- layer styles- opacity-adjustment layers

Filters: The filter menu, Working with filters- Editing your photo shoot, presentation -how to create adds, artstic filter, blur filter, brush store filter, distort filters, noice filters, pixelate filters, light effects, difference clouds, sharpen filters, printing.

## **Reference Books:**

1. Fundamentals of Computers by Reema Thareja from Oxford University Press

2. Adobe Photoshop Class Room in a Book by Adobe Creative Team.

3. Photoshop: Beginner's Guide for Photoshop - Digital Photography, Photo Editing, Colour Grading & Graphic...19 February 2016 by David Maxwell

# 10Hrs

# 12Hrs

# 11Hrs

12Hrs

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18)

SEMESTER – I PAPER – I Max. Marks 70 Pas				
	s Marks 28			
Model PaperComputer Fundamentals & PhotoshopNO Of Hours: 4	4 Credits: 3			
Section- A				
Answer <u>FOUR</u> Questions. Each Question carries FIVE Marks.	4*5=20M			
1. Explain Characteristics and limitations of Computer?				
2. Explain desktop, start menu, icons?				
3. Describe Cache Memory?				
4. Explain saving, retrieving and closing files in Photoshop?				
5. Write a short note on Pen tool?				

6. Explain working with Layers?

### Section-B

5\*10=50M

### Answer <u>FIVE</u> the Questions. Each Question carries TEN Marks.

- 7. Explain Block Diagram of Computer?
- 8. Explain Types of Computers?
- 9. Explain about Input Devices?
- 10. Explain about Computer Memory?
- 11. Explain title-bar, menu-bar, option- bar and image window in Photoshop?
- 12. Explain Rulers, Guide and Grid-Cropping options for an Image?
- 13. Explain Colour modes Levels and Curves?
- 14. Explain different Filters Photoshop?

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2017-'18)

	(), in 2000 11000 11000 2001 2017 10)				
	COMPUTER SCIENCE	CSC-101	2018-'19	B.Sc.(MPCs., MCCs.)	
SEMES	STER – I	PAPER – I		Max. Marks 70	

Guidelines for paper setting 'COMPUTER FUNDAMENTALS & PHOTOSHOP'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within he jurisdiction of Krishna University A.P, India.

(With Effect from	Academic	Year	2017-'1	8)
-------------------	----------	------	---------	----

(	th Eneet nom readen		10)
COMPUTER SCIENCE	CSC-101P	2018-19	B.Sc.(MPCs, MCCs.)
SEMESTER – I PAPER – I	I Max. Mar	ks : 50 Pas	s Marks 25
No. of Hours per week: 2 E	xternal: 25	Internal: 25	Credits: 2
Lab List Photo Shop Lab			
1. Create your Visiting card			
2. Create Cover page for any text	book		
3. Create a Paper add for advertis	ing of any commercial	agency	
4. Design a Passport photo			
5. Create a Pamphlet for any prog	aram to be conducted b	y an organizati	on
6. Create Broacher for you college	e		
7. Create Titles for any forthcomi	ng film		
8. Custom shapes creation			
9. Create a Web template for your	r college		
10. Convert colour photo to black	and white photo		
11. Enhance and reduce the given	Image size		
12. Background changes			
13. Design Box package cover			
14. Design Texture and patterns			
15. Filter effects & Eraser effects			

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18)

COMPUTER SCIENCE	CSC-201C	2018-'19	B.Sc.(MPCs, MCCs.)	
------------------	----------	----------	--------------------	--

SEMESTER – II PAPER – IIMax. Marks 70Pass Marks 28 Total Hrs: 60

SyllabusPROGRAMMING IN C NO. Of. Hours: 4Credits:3

### UNIT-I

### 15Hrs

Introduction to Algorithms and Programming Languages: Algorithm - Key features of Algorithms -Some more Algorithms - Flow Charts - Pseudo code - Programming Languages - Generation of Programming Languages – Structured Programming Language.

Introduction to C: Introduction – Structure of C Program – Writing the first C Program – File used in C Program – Compiling and Executing C Programs – Using Comments – Keywords – Identifiers – Basic Data Types in C – Variables – Constants – I/O Statements inC- Operators in C- Programming Examples - Type Conversion and Type Casting

### **UNIT-II**

## 15Hrs

Decision Control and Looping Statements: Introduction to Decision Control Statements - Conditional Branching Statements – Iterative Statements – Nested Loops – Break andContinue Statement – Goto StatementFunctions: Introduction – using functions – Function declaration/ prototype –

Functiondefinition – function call – return statement – Passing parameters – Scope of variables –Storage Classes Recursive functions – Type of recursion – Towers of Hanoi – Recursion vsIteration **10Hrs** 

# **UNIT -III**

Arrays: Introduction – Declaration of Arrays – Accessing elements of the Array – StoringValues in Array – Calculating the length of the Array – Operations on Array – onedimensional array for interfunction communication - Two dimensional Arrays - Operationson Two Dimensional Arrays - Two Dimensional Arrays for inter-function communication -Multidimensional Arrays -

SparseMatricesStrings: Introduction – Suppressive Input – String Taxonomy – String Operations – Miscellaneous String and Character functions

## UNIT- IV

### **Pointers:** Understanding Computer Memory – Introduction to Pointers – declaring PointerVariables – Pointer Expressions and Pointer Arithmetic – Null Pointers – Generic Pointers - Passing Arguments to Functions using Pointer – Pointer and Arrays – Passing Array toFunction – Difference between Array Name and Pointer - Pointers and Strings - Array of pointers - Memory Allocation in C Programs -MemoryUsage - Dynamic Memory Allocation - Drawbacks of Pointers

Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Arraysof Structures – Structures and Functions – Self referential Structures – Union – Arrays of Unions Variables – Unions inside Structures – Enumerated Data Types **10Hrs** 

## UNIT -V

Files: Introduction to Files – Using Files in C – Reading Data from Files – Writing Data from Files - Detecting the End-of-file - Error Handling during File Operations - AcceptingCommand Line Arguments – Functions for Selecting a Record Randomly - Remove() – Renaming a File – Creating a **Temporary File** 

## **REFERENCE BOOKS**

1. Introduction to C programming by REEMA THAREJA from OXFORD UNIVERSITY PRESS

2. E Balagurusamy: —COMPUTING FUNDAMENTALS & C PROGRAMMING – Tata McGraw-Hill, Second Reprint 2008, ISBN 978-0-07-066909-3.

3. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publ, 2002.

4. Henry Mullish & Huubert L.Cooper: The Spirit of C An Introduction to modern Programming, Jaico Pub. House, 1996.

An Autonomous college within he jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2017-'18)

	COMPUTER	R SCIENCE	CSC-201C	2018-'19	B.Sc.(MPCs, MCCs.)
SEM	ESTER – II I	PAPER – II	Max. Marks 70Pa	ss Marks 28	

 $\mathbf{WESTER} = \mathbf{H} + \mathbf{$ 

<u>Syllabus</u>PROGRAMMING IN C

# N C NO. Of. Hours: 4Credits:3

### Section- A Answer FOUR Questions. Each Question carries FOUR Marks. 4\*5=20M

- 1. Write a short note on Flowchart?
- 2. Explain about input and output Statements?
- 3. Explain storage classes?
- 4. Explain one dimensional array with example?
- 5. Explain dynamic memory allocation?
- 6. How to open a file?

### Section-B

### Answer <u>FIVE</u> the Questions. Each Question carries EIGHT Marks 5\*10=50M

- 7. Explain different types of programming languages?
- 8. Explain about different Categories of Operators in 'C'?
- 9. Explain decision making Looping statements with examples?
- 10. Explain different categories of functions?
- 11. Write about two dimension arrays? Give an example program?
- 12. Explain briefly about string function in 'C'?
- 13. Difference between structures and unions?
- 14. Explain different file modes?

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2017-'18)

	COMPUTER SCIENCE	CSC-201c	2018-'19	B.Sc.(MPC's,MCCS)
SEMESTER – II		PAPER – I	I	Max. Marks 70

## Guidelines for paper setting '**PROGRAMMING IN C**'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within he jurisdiction of Krishna University A.P, India. (With Effect from Academic Year **2017-'18**)

	COMPUTER SCIENCE	CSC-201P	2018-'19	B.Sc.(MPCs,MCCs.)
SEM	IESTER – II PAPER – II	Max. Marks 50	Pass Ma	rks 25
LABI	<u>.IST</u> PROGRAMMING IN (	2		
No. of	Hours per week: 2 Exte	rnal: 25	Internal: 25	Credits: 2
1.	Find out the given number is	perfect number or r	ot using c prog	gram.
2.	Write a C program to check w	whether the given nu	umber is Armst	rong or not.
3.	Write a program to find roots	of quadratic equati	on.	
	Root $1 = (-b + sqrt (b^2 - 4ac))$	/2a Root 2 = (-	$b - sqrt (b^2 - 4a)$	ac) / 2a
4.	Write a C program to find the	sum of individual	digits of a posi	tive integer.
5.	Write a C program to print th	e Fibonacci series		
6.	Write a C program to genera	te the first n terms o	of the Fibonacc	i sequence.
7.	Write a program to find facto	rial of a given numl	per using recur	sion
8.	Write a program to perform a	ll arithmetic operat	ions using swit	ch case
9.	Write a C program to generat	e all the prime num	bers between 1	and n, where n is a
	Value supplied by the user.			
10.	Write a C program to find bot	th the largest and sn	nallest number	in a list of integers.
11.	Write a C program that uses f	unctions to perform	the following	
	a. Addition of Two Matr	rices		
	b. Multiplication of Two	Matrices		
12.	Write a program to perform v	arious string operat	ions	
13.	Write a program to swap two	numbers using poin	nters.	

- 14. Write C program that implements searching of given item in a given list
- **15.** Write a C program to sort a given list of integers in ascending order

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18)

	COMPUT	ER SCIENCE	CCSC-103C	2018-19	B.Com.(C.A)	
SEM	ESTER – I	PAPER – I	Max. Marks 70Pa	ss Marks 28	Total Hrs 60	

### Syllabus:Computer Fundamentals & Photoshop NO. Of. Hours: 5Credits:3

### **UNIT-I:**

Introduction to computers, characteristics and limitations of computer, Block diagram of computer, types of computers, uses of computers, computer generations. Number systems: binary, hexa and octal numbering system.

### **UNIT-II:**

Input and output devices: Keyboard and mouse, inputting data in other ways, Types of Software: system software, Application software, commercial, open source, domain and freeware software, Memories: primary, secondary and cache memory. Windows basics: desktop, start menu, icons.

### Unit –III:

Introduction to Adobe Photoshop, Getting started with Photoshop, creating and saving a document in Photoshop, page layout and back ground, Photoshop program window-title bar, menu bar, option bar ,image window ,image title bar ,status bar, ruler ,paletts, tool box ,screen modes ,saving files ,reverting files, closing files.

### Unit –IV:

Images: working with images, image size and resolution, image editing, colour modes and adjustments, Zooming & Panning an Image, Rulers, Guides & Grids- Cropping & Straightening an Image, image backgrounds, making selections.

Working with tool box: working with pen tool, save and load selection-working with erasers-working with text and brushes-Colour manipulations: colour modes- Levels Curves - Seeing Colour accurately -Patch tool - Cropping-Reading your palettes - Dust and scratches- Advanced Retouching- smoothing skin.

## Unit-V:

Layers: Working with layers- layer styles- opacity-adjustment layers

Filters: The filter menu, Working with filters- Editing your photo shoot, presentation -how to create adds, artstic filter, blur filter, brush store filter, distort filters, noice filters, pixelate filters, light effects, difference clouds, sharpen filters, printing.

## **Reference Books:**

1. Fundamentals of Computers by Reema Thareja from Oxford University Press

2. Adobe Photoshop Class Room in a Book by Adobe Creative Team.

3. Photoshop: Beginner's Guide for Photoshop - Digital Photography, Photo Editing, Colour Grading & Graphic...19 February 2016 by David Maxwell

# 12Hrs

## 10Hrs

## 11Hrs

12Hrs

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year **2017-'18**)

				· · · · · · · · · · · · · · · · · · ·		
	COMPUTER	SCIENCE	CCSC-103C	2018-'19	B.Com.(C.A)	
S	EMESTER – I	PAPER – I	Max. Marks 70	Pass N	Iarks 28	
Model PaperComputer Fundamentals & PhotoshopNO Of Hours: 5 Credits: 3						
Section- A						

## Answer FOUR Questions. Each Question carries FIVE Marks.4\*5=20M

- 1. Explain Characteristics and limitations of Computer?
- 2. Explain desktop, start menu, icons?
- 3. Describe Cache Memory?
- 4. Explain saving, retrieving and closing files in Photoshop?
- 5. Write a short note on Pen tool?
- 6. Explain working with Layers?

### Section-B

### Answer <u>FIVE</u> the Questions. Each Question carries TEN Marks.

5\*10=50M

- 7. Explain Block Diagram of Computer?
- 8. Explain Types of Computers?
- 9. Explain about Input Devices?
- 10. Explain about Computer Memory?
- 11. Explain title-bar, menu-bar, option- bar and image window in Photoshop?
- 12. Explain Rulers, Guide and Grid-Cropping options for an Image?
- 13. Explain Colour modes Levels and Curves?
- 14. Explain different Filters Photoshop?

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year **2017-'18**)

× ×			/
COMPUTER SCIENCE	CCSC-103C	2018-'19	B.Com.(C.A)

SEMESTER - I

PAPER – I

Max. Marks 70

### Guidelines for paper setting <u>'COMPUTER FUNDAMENTALS & PHOTOSHOP'</u>

Unit wise weightage of Marks	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit -5	1	1

• Each Short answer question carries 5 marks in Section –A

• Each Essay question carries 10 marks in Section –B

• The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year **2017-'18**)

	COMPUTER S	SCIENCE	CCSC-103P	2018-19	B.Com. (CA.)	
SE	MESTER – I F	PAPER – I	Max. Marl	ks : 50 Pass	Marks 25	
No. Lab	of Hours per week List Photo Sl	k: 2 Exte hop Lab	ernal: 25	Internal: 25	Credits: 2	
1. C	reate your Visiting	card				
2. Ci	reate Cover page fo	or any text bo	ok			
3. Create a Paper add for advertising of any commercial agency						
4. D	esign a Passport ph	ioto				
5. Ci	reate a Pamphlet fo	or any program	n to be conducted by	y an organizatio	on	
6. Ci	reate Broacher for	you college				
7. C	reate Titles for any	forthcoming	film			
8. C	ustom shapes creati	ion				
9. Convert colour photo to black and white photo						
10. I	Background change	es				
11. I	Design Texture and	patterns				
12. I	Filter effects & Eras	ser effects				

An Autonomous college within the jurisdiction of Krishna University A.P. India.

(With Effect from Academic Year 2017-'18)

<b>COMPUTER SCIENCE</b>	CCSC-203C	2018-'19	B.Com.(C.A)
-------------------------	-----------	----------	-------------

SEMESTER -II PAPER – II Max. Marks 70Pass Marks 28 **Total Hrs 60** 

Syllabus: ENTERPRISE RESOURCE PLANNING NO. Of. Hours: 5Credits:4

### **Unit-I: Introduction**:

Overview of enterprise systems – Evolution - Risks and benefits - Fundamental technology - Issues to be consider in planning design and implementation of cross functional integrated ERP systems.

### **Unit- II: ERP Solutions and Functional Modules:**

Overview of ERP software solutions- Small, medium and large enterprise vendor solutions, BPR and best business practices - Business process Management, Functional modules.

### **Unit-III:ERP Implementation:**

Planning Evaluation and selection of ERP systems -Implementation life cycle - ERP implementation, Methodology and Frame work- Training - Data Migration - People Organization in implementation-Consultants, Vendors and employees.

### **Unit-IV:Post Implementation:**

Maintenance of ERP- Organizational and Industrial impact; Success and Failure factors of ERP Implementation.

## **Unit-V: Emerging Trends on ERP:**

Extended ERP systems and ERP add-ons -CRM, SCM, Business analytics - Future trends in ERP systems-web enabled, Wireless technologies, cloud computing.

## **References:**

1. Alexis Leon, ERP demystified, second Edition Tata McGraw-Hill, 2008.

2. Sinha P. Magal and Jeffery Word, Essentials of Business Process and Information System, Wiley India, 2012

3. Jagan Nathan Vaman, ERP in Practice, Tata McGraw-Hill, 2008

4. Alexis Leon, Enterprise Resource Planning, second edition, Tata McGraw-Hill, 2008.

5. Mahadeo Jaiswal and Ganesh Vanapalli, ERP Macmillan India, 2009

6. Vinod Kumar Grag and N.K. Venkitakrishnan, ERP- Concepts and Practice, PHI, 2006.

7. Summer, ERP, Pearson Education, 2008

12Hrs

## 10Hrs

### 14Hrs

12Hrs

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year **2017-'18**)

F	<b>`</b>			
	COMPUTER SCIENCE	CCSC-203C	2018-'19	B.Com. (C.A)
SEN	MESTER – II PAPER – I	Max. Marks 70	·	Pass Marks 28
Mod	<u>lel Paper</u> Enterprise Resou	irce PlanningNO (	Of Hours: 5 C	redits: 4
		Section-	<u>A</u>	
Ansv	wer <u>FOUR</u> Questions. Each	Question carries FIV	E Marks.	4*5=20M
1	. Explain the Overview of E	RP?		
2	. Write a short note on Small	l, Medium Business V	endor solution?	
3	. Explain Data Migration?			
4	Explain Methodology and Explai	Frame work of ERP In	nplementation?	
5	. Explain Organizational imp	pact on maintains of E	RP?	
e	Explain cloud computing?			
		Section-	<u>B</u>	
Ans	wer <u>FIVE</u> the Questions. Eac	ch Question carries E	IGHT Marks.	5*10=50M
7	. Explain Evolution of ERP.			
8	Advantages and disadvanta	ges of ERP.		
ç	Explain about functional N	Iodules in ERP		
1	0. Explain about Implementa	tion life Cycle		
1	1. Explain people Organisation	n in ERP implementat	ion	
1	2. Explain success and failure	e factors of ERP Imple	ementation	
1	3. Explain about Consumer Rela	tion Ship Management	(CRM) & Supply	/ Chain Management (SCM)?
1	4. What are future trends in E	RP system?		

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

-	-	
(With Effect from	n Academic Year 2017-'18)	

COMPUTER SCIENCE	COM-CSC-203	2018-'19	B.Com.(C.A)

SEMESTER – II PAPER – II Max. Marks 70

Guidelines for paper setting 'ENTERPRISE RESOURCE PLANNING'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	1	2
Unit-2	1	1
Unit-3	2	2
Unit-4	1	1
Unit -5	1	2

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2017-'18)

	COMPUTER SCIENCE	ICT-I-201	2018-'19	B.A, B.Com, B.Sc.	
SEMESTER – IIPAPER – IMax. Marks 50		Marks 50 P	ass Marks 20 T	otal Hrs: 30	

SyllabusComputer Fundamentals & Office Tools NO. Of Hrs: 2Credits: 2

### **Unit-I : Basics of Computers**

Definition of a Computer - Characteristics and Applications of Computers – BlockDiagram of a Digital Computer – Classification of Computers based on size and workingCentral Processing Unit – Input, Output and I/O Devices

### **Unit-II: Memory Devices & Operating Systems**

Primary, Auxiliary and Cache Memory – Memory Devices – Software, Hardware, Firmware and People ware –Definition and Types of Operating System – Functions of an Operating System – MS-DOS MS-Windows – Desktop, Computer, Documents, Pictures, Music, Videos, Recycle Bin, Task Bar – Control Pane

## Unit-III: MS-Word

Features of MS-Word – MS-Word Window Components – Creating, Editing, Formattingand Printing of Documents – Headers and Footers – Insert/Draw Tables, Table Auto format – Page Borders and Shading – Inserting Symbols, Shapes, Word Art, PageNumbers, Equations – Spelling and Grammar – Thesaurus – Mail Merge

### **Unit-IV: MS-PowerPoint**

Features of PowerPoint – Creating a Blank Presentation - Creating a Presentation using a Template -Inserting and Deleting Slides in a Presentation – Adding Clip Art/Pictures -Inserting Other Objects, Audio, Video - Resizing and Scaling of an Object – SlideTransition – Custom Animation Unit-V : MS-Excel 6 Hrs

Overview of Excel features – Creating a new worksheet, Selecting cells, Entering and editing Text, Numbers, Formulae, Referencing cells – Inserting Rows/Columns – Changing column widths and row heights, auto format, changing font sizes, colors, shading and attributes – Data Sorting and Filters – Functions – Functions requiring Addins, Functions by category Creating different types of Charts **Reference Books :** 

1. Fundamentals of Computers by V.Raja Raman, Publishers : PHI

2. Fundamentals of Computers by Reema Thareja, Publishers : Oxford UniversityPress, India

3. Microsoft Office 2010 Bible by John Walkenbach, Herb Tyson, Michael R.Grohand Faithe Wempen, Publishers : Wiley

# 6 Hrs

6 Hrs

# 6Hrs

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year **2017-'18**)

	COMPUTER SCIENCE	ICT-I-201C	2018-'19	B.A, B.Com, B.Sc.			
SEM	ESTER – II PAPI	ER – I Max. Marl	ks 50 Pas	ss Marks 20			
<u>Mode</u>	<u>l paper</u> Computer Fundame	ntals & Office Tools	s NO. Of Hrs: 2	2Credits: 2			
Answ	SECTION-AAnswer FOUR of the following questions4x5=20M						
1.	Explain characteristics of Co	omputer?					
2.	Explain any five Input devic	es?					
3.	Write about Desktop, Comp	uter, Documents, Re	cycle Bin?				
4.	Explain about Cache Memor	ry?					
5.	Explain inserting Headers and	nd Footers in MS-Wo	ord?				
6.	How to Insert/Draw table in	MS-Word?					
7.	Inserting and Deleting slides	s in presentation?					
8.	Explain inserting charts in M	IS-Excel?					
		<b>SECTION</b>	- <u>B</u>				
Answ	er <u>THREE</u> of the following q	uestions		3X10=30M			
9.	Explain Block diagram of a	Digital Computer?					
10	. Explain Classification of Co	mputers?					
11	. Explain Computer Memory	?					
12	. Explain MS-Word Window	Components with ne	at Diagram?				
13. Creating power point presentation using Template?							
14	. Explain Excel Functions						

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect Form Academic Year **2017-'18**)

	COMPUTER SCIENCE	ICT-I-201	2018-'19	B.A, B.Com., B.Sc.	
SEMESTER – II		PAPER – I		Max. Marks 50	

Guidelines for paper setting 'COMPUTER FUNDAMENTALS & OFFICE TOOLS'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	1
Unit-3	2	1
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P. India.

(With Effect from Academic Year 2017-'18)

COMPUTER SCIENCE CSC	-301C 2018-19	B.Sc.(MPCs, MCCs.)
----------------------	---------------	--------------------

SEMESTER – IIIPAPER – III Max. Marks 75 Pass Marks 30

### SvllabusOBJECT ORIENTED PROGRAMMING USING JAVA **Total Hrs: 60**

# NO. Of. Hours: 4Credits: 3

### UNIT-I

Fundamentals of Object - Oriented Programming: Introduction, Object Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Applications of OOP, Java features: **Overview of Java Language**: Introduction, Simple Java program structure, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments. Constants, Variables & Data Types: Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Symbolic Constants, Type casting, Getting Value of Variables, Standard Default values; Operators & Expressions. 15 Hrs

### UNIT-II

**Decision Making & Branching:** Introduction, Decision making with if statement, Simple if statement, if-Else statement, Nesting of if-else statements, the else if ladder, the switch statement, the conditional operator. Looping: Introduction, While statement, do-while statement, for statement, Jumps in loops. Classes, Objects & Methods: Introduction, Defining a class, Adding variables, Adding methods, Creating objects, Accessing class members, Constructors, Method overloading, Static members, Nesting of methods: 10 Hrs

### UNIT-III

Inheritance: Extending a Class, Overriding Methods, Final Variables and Methods, FinalClasses, Abstract Methods and Classes; Arrays, Strings And Vectors: Arrays, One-dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Vectors, Wrapper classes; Interfaces: Multiple Inheritance: Introduction, Defining interfaces, Extending

interfaces, Implementing interfaces, Assessing interface variables; **UNIT-IV** 

Multithreaded Programming: Introduction, Creating Threads, Extending the Threads, Stopping and Blocking a Thread, Lifecycle of a Thread, Using Thread Methods, Thread Exceptions, Thread Priority, Synchronization, Implementing the 'Runnable' Interface.

Managing Errors And Exceptions: Types of errors: Compile-time errors, Runtime errors, Exceptions, Exception handling, Multiple Catch Statements, Using finally statement,

### **UNIT-V**

Applet Programming: local and remote applets, Applets and Applications, Building Applet code, Applet Life cycle: Initialization state, Running state, Idle or stopped state, Dead state, Display state. Packages: Introduction, Java API Packages, Using System Packages, Naming

conventions, Creating Packages, Accessing a Package, using a Package. Managing Input/ Output Files in Java: Introduction, Concept of Streams, Stream classes, Byte Stream Classes, Input Stream Classes, Output Stream Classes, Character Stream classes: Reader stream classes, Writer Stream classes, Using Streams;

### **Prescribed Text Book:**

1. E.Balaguruswamy, Programmingwith JAVA, A primer, 3e, TATA McGraw-Hill Company.

### **Reference Books**

- 1. Programming In Java By Sachin Malhotra And Saurabh Choudhary From Oxford University Press
- 2. Object Oriented Programming Through Java by P. Radha Krishna, Universities Press
- 3. John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series,
- 4. Deitel & Deitel. Java TM: How to Program, PHI (2007)
- 5. Java Programming: From Problem Analysis to Program Design- D.S Mallik

## 15Hrs

# 10 Hrs

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2017-'18)

	COMPUTER SCIENCE	CSC-301C	2018-19	B.Sc.(MPCs, MCCs.)	
SEMES	STER – IIIPAPER – III	Max. Marl	ks 75 Pass	Marks 30	
MODE	<u>L PAPER</u> OBJECT ORIEN	TED PROGRAM	MING USING	G JAVA	
NO Of	NO Of Hours: 4Credits: 3 Total Hrs:60				
		Section-	A		
	Answer <u>FIVE</u> Questions. Ea	ch Question carri	es FIVE Marl	ks. 5*5=25M	
1.	Explain the structure of a ja	va program?			
2. Explain different data types in java?					
3.	Write a short note on if state	ement			
4.	Explain about Constructors	?			
5.	Differences between arrays	and vectors?			
6.	Explain about Exception has	ndling?			
7.	Explain the applet life cycle	?			
8.	How to create and accessing	g a package?			

### Section-B

### Answer <u>FIVE</u> the Questions. Each Question carries TEN Marks 5\*10=50M

- 9. Explain the Concepts of Object Oriented Programming?
- 10. Explain java Features?
- 11. Explain Looping statements with example
- 12. Explain Method overloading with an example program
- 13. Explain about inheritance
- 14. Explain the concept of interface?
- 15. Explain life cycle of a thread?
- 16. Explain about Byte Stream Classes?

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	(With	n Effect From Acad	demic Year 20	17-'18)
	COMPUTER SCIENCE	CSC-301C	2018-'19	B.Sc.(MPCs., MCCs.)
SEMES	STER – III	PAPER – I	II	Max. Marks 75

Guidelines for paper setting 'OBJECT ORIENTED PROGRAMMING USING JAVA'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	1	2
Unit-4	1	1
Unit-5	2	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2017-'18)

COMPUTER SCIENCE	CSC-301P	2018-'19	B.Sc.(MPCs., MCCs.)
SEMESTER – III	PAP	PER – III	Max. Marks 50
Lab ListOBJECT ORIENTED PR	OGRAMMING U	SING JAVA	Pass Marks 25

No. of Hours per week: 2 External: 25 Internal: 25 Credits: 2

- 1. Write a program to perform various String Operations
- 2. Write a program to print the given number is Armstrong or not?
- 3. Prompt for the cost and selling price of an article and display the profit (or) loss
- 4. Write a program to print the numbers given by command line arguments
- 5. Write a program on class and object in java
- 6. Illustrate the method overriding in JAVA
- 7. Write a program to find the Simple Interest using Multilevel Inheritance
- 8. Write a program to display matrix multiplication.
- 9. Write a program to implement Exception handling
- 10. Write a program to create packages in Java
- 11. Write a program on interface in java
- 12. Write a program to Create Multiple Threads in Java
- 13. Write a program to Write Applets to draw the various polygons
- 14. Write a program to assign priorities to threads in java
- 15. Write an Applet Program to design a Simple Calculator.

An Autonomous college within the jurisdiction of Krishna University A.P. India.

(With Effect from Academic Year 2017-'18)

	COMPUT	ER SCIENCE	ICT-II-301C	2018-'19	B.A, B.Com, B.Sc.
SEMF	ESTER – III	PAPER – II	Max. Marks 50	Pass Marks 20	) Total Hrs 30

SyllabusInternet Fundamentals and Web ToolsNO. Of Hrs: 2Credits: 2

### Unit-I:

**Fundamentals of Internet :** Networking Concepts, Data Communication – Types of Networking, Internet and its Services, Internet Addressing – Internet Applications – Computer Viruses and its types – Browser – Types of Browsers.

### Unit-II:

Internet applications: Using Internet Explorer, Standard Internet Explorer Buttons, Entering a Web Site Address, Searching the Internet – Introduction to SocialNetworking: twitter, tumbler, LinkedIn, face book, flicker, Skype, yelp, vimeo, yahoo, Google+, YouTube, WhatsApp, etc. 6Hrs

### **Unit-III**:

E-mail: Definition of E-mail - Advantages and Disadvantages – User-Ids, Passwords, Email Addresses, Domain Names, Mailers, Message Components, MessageComposition, Mail Management, Email Inner Workings.

### Unit IV:

WWW- Web Applications, Web Terminologies, Web Browsers, URL – Components of URL, Searching WWW – Search Engines and Examples

### Unit-V:

**Basic HTML:** Basic HTML – Web Terminology – Structure of a HTML Document –HTML, Head and Body tags – Semantic and Syntactic Tags – HR, Heading, Font, Image and Anchor Tags –Different types of Lists using tags – Table Tags, Imageformats – Creation of simple HTML Documents.

### **Reference Books :**

1. In-line/On-line : Fundamentals of the Internet and the World Wide Web, 2/e - by Raymond Greenlaw and Ellen Hepp, Publishers : TMH

6Hrs

**6Hrs** 

6Hrs

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year **2017-'18**)

	COMPLITED SCIENCE		2018 (10		Com B So
	COMI UTER SCIENCE	101-11-3010	2010- 19	D.A, D	
S	<b>EMESTER – III PAPER –</b>	II Max.Marks	50 Pass Ma	rks: 20	Total: 30 Hrs

### Modal Paper: Internet Fundamentals and Web Tools NO. Of Hrs: 2Credits: 2

### Section- A

American FOUD On			FIVE monles	AV5 2014
Answer <u>FUUR</u> Qu	iestions. Each Q	juestion carries	FIVE marks.	4A3=20M

- 1. Explain types of Browsers?
- 2. Explain Internet Applications.
- 3. Write a short note on Internet Explorer?
- 4. Explain User Id and Password of e-mail?
- 5. Explain Advantages and disadvantages of electronic mail.
- 6. Explain about WWW?
- 7. Explain briefly about web application.
- 8. Explain Head and Body tags in HTML Document?

### Section-B

### Answer Any <u>THREE</u>Questions. Each Question carries TEN Marks. 3×10=30M

- 9. Explain types of Networking?
- 10. Explain Internet Services?
- 11. Explain any 10 Social Net Working Sites
- 12. Explain Message Composition.
- 13. Explain different types of Search Engines.
- 14. Explain different lists in HTML.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year **2017-'18**)

		(With Effect From Academic Feat 2017-10)			
	COMPUTER SCIENCE	ICT-II-301	2018-'19	B.A, B.Com, B.Sc.	
SEMES	STER – III	PAPER – I	Ι	Max. Marks 50	

## Guidelines for paper setting 'INTERNET FUNDAMENTALS AND WEB TOOLS'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	1
Unit-3	2	1
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P. India. (With Effect from Academic Year 2017-'18)

Sheet nom Academ		10)	
and the	<b>8</b> 040 (40	<b>n</b> a	ama

	COMPUTE	ER SCIENCE	CSC-401C	2018-'19	B.Sc.(MPCs., MCCs.)
SEMI	ESTER – IV	PAPER – IV	Max. Marks	75 Pass Mai	rks 30 Total Hrs 60
<u>Syllabu</u>	<u>is</u> DATA STR	UCTURES	NO Of Hours: 4	Credit	ts: 4

### **UNIT I**

Concept of Abstract Data Types (ADTs)- Data Types, Data Structures, Storage Structures, and File Structures, Primitive and Non-primitive Data Structures, Linear and Non-linear Structures. Linear Lists - ADT, Array and Linked representations, Pointers.

Arrays - ADT, Mappings, Representations, Sparse Matrices, Sets - ADT, OperationsLinked Lists: Single Linked List, Double Linked List, Circular Linked List, applications 10 Hrs

### UNIT II

Stacks: Definition, ADT, Array and Linked representations, Implementations and Applications Queues: Definition, ADT, Array and Linked representations, Circular Queues, De-queues, Priority

Queues, Implementations and Applications.

## **UNIT III**

**Trees:** Binary Tree, Definition, Properties, ADT, Array and Linked representations, Implementations and Applications. Binary Search Trees (BST) - Definition, ADT, Operations and Implementations, BST Applications. Threaded Binary Trees, Heap trees

## **UNIT IV**

Graphs – Graph and its Representation, Graph Traversals, Connected Components, Basic Searching Techniques, Minimal Spanning Trees

UNIT- V

Sorting and Searching: Selection, Insertion, Bubble, Merge, Quick, Heap sort, SequentialAnd Binary Searching.

## **TEXT BOOKS**

1. Hubbard John R. and Hurray Anita, Data Structures with Java Paperback Prentice-Hall 2005 ISBN-10: 8120327454

2. Samanta D, Classic Data Structures, Prentice-Hall of India, 2001.

3. David Cousins, Introducing Data Structures with Java Kindle Edition, Pearson Education; First edition, 2011, ISBN-10: 8131758648, 464 pages

## **REFERENCE BOOKS**

- 1. Sahani S, Data Structures, Algorithms and Applications in C++, McGraw-Hill, 2002
- 2. D S Malik, Data Structures Using C++, Thomson, India Edition 2006
- 3. Tremblay P, and Sorenson P G, Introduction to Data Structures with Applications, Tata McGraw-Hill,

**10Hrs** 

15 Hrs

### **10 Hrs**

# 15 Hrs

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year **2017-'18**)

	COMPUTE	ER SCIENCE	CSC	-401C	2018-'19	<b>B.Sc.</b> (	MPCs., MCCs.)
SEME	ESTER – IV	PAPER – IV	Max. N	/Iarks 75	Pass Mark	as 30	Total Hrs 60
Mode	<u>l Paper</u> DATA	<b>STRUCTURI</b>	ES N	NO Of Hou	ırs: 4	Credit	s: 3

### Section- A

- 1. Explain about Primitive & Non primitive Data Structures?
- 2. Explain about Single Linked List?
- 3. Write about Applications of Stack?
- 4. Explain about D-Queue?
- 5. Write a Short note on Binary tree?
- 6. Explain ADT?
- 7. What is Graph? How to represent the Graph
- 8. Write a program to sort the elements in bubble sort?

## <u>Section- B</u> Answer <u>FIVE</u> the Questions. Each Question carries TEN Marks

5\*10=50M

- 9. Explain Linked represents with array? With an Example?
- 10. Explain Sparse Matrices?
- 11. Explain stack operations?
- 12. What is a Queue? Explain Queue implementation?
- 13. Explain Tree traversing methods?
- 14. Explain Binary search tree?
- 15. Explain about BFS and DFS?
- 16. Explain about sequential and binary searching?

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect From Academic Year 2017-'18)

	COMPUTER SCIENCE	CSC-401C	2018-'19	B.Sc.(MPCs., MCCs.)
SEMESTER – IV		PAPER – I	V	Max. Marks 75

### Guidelines for paper setting 'DATA STRUCTURES'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year **2017-'18**)

	COMPUTE	<b>CR SCIENCE</b>	CSC-401P	2018-'19	B.Sc.(MPCs., MCCs.)
SEME	ESTER – IV	PAPER – IV	Max. Marks 50	Pass Marks 2	25 TotalHrss:30
LAB L	IST	DATA	STRUCTURES		
No. of l	Hours per we	ek: 2 Exter	<b>rnal: 25</b>	Internal: 25	Credits: 2

- 1. Write a Program to implement the Linked List operations
- 2. Write a Program to implement the Stack operations using an array.
- 3. Write Programs to implement the Queue operations using an array.
- 4. Write Programs to implement the Stack operations using a singly linked list.
- 5. Write Programs to implement the Queue operations using a singly linked list.
- 6. Write a program to search an item in a given list using Linear Search and Binary Search
- 7. Write a program for Quick Sort
- 8. Write a program for Merge Sort
- 9. Write a program for insertion sort
- 10. Write a program for Bubble Sort.
- 11. Write a program for selection Sort.
- 12. Write a program for Graph traversals

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2017-'18)

	COMPUTER	<b>SCIENCE</b>	CCSC-303C	2018-'19	B.Com. (C.A)
SEN	MESTER – III	PAPER – III	Max. Marks 75	5 Pass Marks	30 Total Hrs: 60

### Unit-I:

MS-Excel: features of Ms-Excel, Parts of MS-Excel window, entering and editing data in worksheet, number formatting in excel, different cell references, how to enter and edit formula in excel, auto fill and custom fill, printing options.

### Unit-II:

options: Different formatting options, change row height, formulae and Functions, Functions: Meaning and advantages of functions, different types of functions available in Excel.

### Unit-III:

Charts: Different types of charts, Parts of chart, chart creation using wizard, chart operations, data maps, graphs, data sorting, filtering. Excel sub totals, scenarios, what-if analysis.

Macro: Meaning and advantages of Macros, creation, editing and deletion of macros - Creating a macro, how to run, how to delete a macro.

### Unit-IV:

MS Access: Creating a Simple Database and Tables: Features of Ms-Access, Creating a Database, Parts of Access. Tables: table creation using design view, table wizard, data sheet view, import table, link table. Forms: The Form Wizard, design view, columnar, tabular, data sheet, chart wizard.

## Unit- V:

Finding, Sorting and Displaying Data: Queries and Dynasts, Creating and using select queries, Returning to the Query Design, Multi-level sorts, Finding incomplete matches, showing All records after a Query, saving queries - Crosstab Queries. Printing Reports: Form and Database Printing...

## **Reference Books:**

1.Ron Mansfield, Working in Microsoft Office, Tata McGraw Hill(2008) 2.Ed Bott, Woody Leonhard, Using Microsoft Office 2007, Pearson Education(2007) 3. Sanjay Saxsena, Microsoft Office, 4. Microsoft Office, BPB Publications

# 12Hrs

12Hrs

### 12Hrs

## **12 HrsFormatting**

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year **2017-'18**)

	COMPUTER	R SCIENCE	CCSC-303C	2018-'19	B.Com. (C.A)	
SEN	AESTER – III	PAPER – III	Max. Marks 7	5 Pass Marks	s 30 Total Hrs: 60	
Mod	el PanerOffice	Automation To	ools NO	Of Hours: 5	Credits: 4	
<u>1910u</u>	<u>er i aper</u> onnee		Section-	A	creants. 4	
			<u>Dection 1</u>	-		
Ansv	wer <u>FIVE</u> Ques	tions. Each Qu	estion carries FIVE	2 Marks.	5*5=25M	
1	. Explain Featu	res of Excel?				
2	. Explain Num	ber Formatting	in Excel?			
3	Explain How	to Change row	Height??			
4	. What are adv	antages of Func	tions?			
5	. Explain what	is sorting?				
6	5. Explain how	to delete Macro	?			
7	. Write any 5 F	Seatures of Acce	ss?			
8	. Describe Que	ery used in MS-2	Access?			
			Section-1	<u>3</u>		
Ansv	wer <u>FIVE</u> the Q	uestions. Each	Question carries T	EN Marks.	5*10=50M	
9	. Explain Parts	of Excel Sheet	with neat Diagram.			
1	0. Explain Auto	Fill and Custom	Fill Options in Exc	el.		
1	11. Explain different types of Functions available.					
1	2. Explain diffe	erent Formatting	options.			

- 13. What is Chart? Explain different types of Charts.
- 14. What is Macro? Explain Creating and Editing of Macro.
- 15. What is Form? Explain Creating Form using Form Wizard.
- 16. Explain How to Create a Query, Showing, all records after Query and Saving Query.

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18)

COMPUTER SCIENCE CCSC-303C 2018-'19 B.Com. (C.A)

SEMESTER – III PAPER – III Max. Marks 75

## Guidelines for paper setting 'OFFICE AUTOMATION TOOLS'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section -A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us
An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18)

	(Whit Effect from Academic Tear 2017- 10)					
	COMPUTER	SCIENCE	CCSC-303P	2018-'19	B.Com. (C.A)	
SEMESTER – III PAPER – III Max. Marks 50Pass Marks 20 Total Hrs: 30						
Lab	Lab list Office Automation Tools					

#### Ms-Word

- 1. Create a vesting Card
- 2. Create a template for organization using header & footer
- 3. Mail merge Procedure

#### Ms-Excel

1. Create an electronic spreadsheet in which you enter the following decimal numbers and convert into Octal, Hexadecimal and Binary numbers vice versa. Decimal Numbers: 35, 68, 95, 165, 225, 355, 375, 465. Binary Numbers: 101, 1101, 111011, 10001, 110011001, 111011111.

2. The ABC Company shows the sales of different products for 5 years. Create column chart, 3D-column and Bar chart for the following data
YEAR PRODUCT-1 PRODUCT-2 PRODUCT-3 PRODUCT-4
2003 1000 800 900 10002004 800 80 500 9002005 1200 190 400 8002006 400 200 300 1000
2007 1800 400 400 1200

3. Create a suitable examination data base and find the sum of the marks(total) of each student and respective class secured by the student rules:

Pass if marks in each subject >=35 Distinction if average>=75 First class if average>=60 but <75 Second class if average>=50 but <60 Third class if average>=35 but <50 Fail if marks in any subject is <35 Display average marks of the class, subject wise and pass percentage

4. Create an electronic spread sheet in which you enter date and time functions in Excel

5. Create a electronic spread sheet in statistical and mathematical functions in Excel

#### **MS-PowerPoint**

1. Make a Power point presentation on your strengths, weaknesses, hobbies, factors that waste your time.

2. Make a Power point presentation to represent your College profile.

3. Make a Power point presentation of all the details of the books that you had studied in B.Sc. First Year.

4. Create a Presentation without Animation.

#### MS-ACCESS

1. Create a database using MS-ACCESS with at least 5 records table1 structure: register number , name, dob, gender, class table2 structure: register number m1 m2 m3 m4 m5 total maintain the relationship between two tables with register number as a primary key and answer the following quarries: show the list of students with the following fields as one query register number name gender total marks

2. Maintain the relationship between above two tables with register number as a primary key and answer the following reports: reports must have following columns report1 with register number, name, marks of all subjects and 90 hrs (3 hrs/ week) computer science 10 of 44 total report2 with register number, total , percentage.

3. Create a database using ms-access with at least 5 records table1 structure: emp-code emp-name age gender dob table2 structure: emp-code basic-pay maintain the relationship between two tables with emp-code as a primary key generate the following reports: report1: emp-code emp-name basic-pay da,hra gross-salary report2: emp-code emp-name age gender gross-salary

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2017-'18)

	COMPUTER SC	IENCE	CCSC-403C	2018-'19	B.Com.(C.A)
SEM	ESTER –IV PAPI	$\mathbf{E}\mathbf{R} - \mathbf{I}\mathbf{V}$ N	Max. Marks 75	Pass Marks	30 Total Hrs 60

Syllabus: Business Analytics NO. Of. Hours: 5 Credits:4

#### Unit-I:

Introduction - Business Analytics Life Cycle - Business Analytics Process - Data concepts - Data exploration & visualization - Business Analytics as Solution for Business Challenges .

#### Unit-II:

Automated Data Analysis: Tabulation and Cross Tabulation of Data: Univariate, Bivariate and Multivariate Data Analysis – ANOVA.

#### Unit-III:

Hypothesis Testing: Type 1 & 2 errors - T-test, ANOVA, Chi-Square and correlation- Linear Regression Analysis - Logistic Regression - Cluster Analysis - Market Basket Analysis.

#### Unit-IV:

Business Data Management: Master Data Management: Data Warehousing and kinds of Architecture – Data Extraction – Transformation and Up-loading of Data – Data Mining – Meta Data – Data Marts – Creating Data Marts – Data Integration – OLTP and OLAP.

#### Unit-V:

SPSS Packages – Applications and Case Studies.

#### **Suggested Books:**

- 1. Gupta S.P. "Statistical Methods", Sultan Chand, New Delhi, 2010.
- K.V. Rao, "Research Methodology in Commerce and Management", Sterling Publishers, New Delhi, 2012.
- 3. T.S. Wilkinson & P.L. Bhandarkar, "Methodology and Techniques of Social Research", 2010.
- 4. Richard A.Johnson & Dean W.Wichern, "Applied Multivariate Statistical Analysis", Prentice Hall International Inc., 2007.
- 5. R.N Prasad and Seema Acharya, "Fundaments of Business Analytics", Wiley India
- 6. Pang-Ning Tan, Michael Steinbach & Vipin Kumar, "Introduction to Data Mining", Pearson, 2009.
- 7. Alex Berson, Stephen Smith & Kurt Thearling, "Building Data Mining Application forCRM", Tata McGraw Hill, New Delhi,2000.

12Hrs

#### 14Hrs

#### 10Hrs

# 12Hrs

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year **2017-'18**)

	COMPUTER S	CIENCE	CCSC-403C	2018-'19	B.Com. (C.A)			
SEN	AESTER – IV P	APER – IV	Max. Marks 75	Pass Marks 30	Total Hrs: 60			
Mo	<u>lel Paper</u> Business	Analytics	NO Of H	ours: 5	Credits: 4			
	<u>Section- A</u>							
Ansv	Answer <u>FIVE</u> Questions. Each Question carries FIVE Marks. 5*5=25M							
1	What is the role	of Business	Analyst?					
2	Write a short not	te on Pivot ta	able?					
3	. Explain methods	s of Tabulatio	on?					
4	. Write a short not	te on ANOV	A?					
5	. What is T-Test?							
6	Explain Scatter of	diagram metl	hod?					
7	. Describe Data W	Varehouse?						
8	. Write a short not	te on SPSS?						
			<b>Section</b>	<u>- B</u>				
Ansv	wer <u>FIVE</u> the Que	stions. Each	Question carries	TEN Marks.	5*10=	50M		
9	. Explain Busines	s Analytics l	ife cycle?					
1	0. Define Data? Ex	plain about o	different types of d	ata?				
1	1. Explain differer	nt types of Ta	abulation?					
1	2. What is Hypoth	esis Testing	Explain One Tail	ed and Two Taile	ed test?			
1	3. What is Regress	ion? Explain	Logistic Regression	on?				
1	4. Explain about D	Data Marts?						
1	5. Explain Differen	nt types of Ol	LAP Architecture?					
1	6. Explain Basic st	eps in worki	ng with SPSS?					

COMPUTER SCIENCE	CCSC-403	2018-'19	B.Com.(C.A.)
SEMESTER – IV PAPER – III Max. Marks 75			

Guidelines for paper setting 'BUSINESS ANALYTICS'

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	1
Unit-3	2	2
Unit-4	1	2
Unit -5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

	COMPUTER SCIENCE	CSC-501C	2018-'19	<b>B.Sc.(MPCs)</b>	
	SEMESTER – V	PAPER – V	Max. Ma	rks 75	]
<u>Syllab</u>	<u>us</u> DA	TA BASE MANA	GEMENT SY	STEMS	
	NOOf Hours: 4No Of Cree	<u>lits:3</u> Pass Marks 3	)		
	Course Objective: Design	& develop database	for large volu	mes & varieties of da	ıta with
	optimized data processing t	echniques.			
	Unit – I: Database System	s Introduction			12H
Database Systems: Introducing the database and DBMS,			DBMS, Why	the database is impor	rtant,
	Historical Roots: Files and	File Systems, Proble	ems with File S	ystem, Data Manage	ment,
	Database Systems. Data Me	odels: The important	ce of Data mod	els, Data Model Basi	ic Building
	Blocks, The evaluation of D	ata Models, Degree	of Data Abstra	ction.	

# Unit - II: Relational Database & Data Modelling

The Relational Database Model: A logical view of Data, Keys, Integrity Rules, Relational Set Operators, The Data Dictionary and the system Catalog, Indexes, Codd's relational database rules. Entity Relationship Model: The ER Model Advanced Data Modelling: The Extended Entity Relationship Model, Entity clustering, Entity integrity.

#### **Unit-III:Normalization and Database Design**

Normalization of database tables: Data base Tables and Normalization, The need for Normalization, The Normalization Process, High level Normal Forms, Normalization and database design, de normalization.

Database Design: The Information System, The Systems Development Life Cycle, The Database Life Cycle, Centralized Vs Decentralized design.

#### **Unit-IV:Structured Query Language**

# Introduction to SQL: Data Definition Commands, Data Manipulation Commands, Select queries, Advanced Data Definition Commands, Advanced Select queries, Virtual Tables, SQL Join Operators, Sub queries and correlated queries, SQL Functions.

#### **Unit-V: Procedural SQL**

**10Hrs***Introduction to PL/SQL*: Triggers, Stored Procedures, Pl/ SQL Stored Functions **Prescribed Text Book:** 

1. Peter Rob, Carlos Coronel, Database Systems Design, Implementation and Management, Seventh Edition, Thomson (2007).

#### **Reference Books:**

- 1. Elimasri / Navathe, Fundamentals of Database Systems, Fifth Edition, Pearson Addison Wesley 2. Raman A Mata – Toledo/Panline K Cushman, Database Management Systems, .
- 2. C.J.Date, A.Kannan, S.Swamynathan, An Introduction to Database Systems, Eight edition,
- 3. "DatabaseSystemConcepts" by AbrahamSilberschatz, Henry Korth, and S.Sudarshan,
- 4. Atul Kahate, Introduction to Database Management Systems, Pearson Education (2006). Student Activity: 1. Create your college database for placement purpose. 2. Create faculty database of your college with their academic performance scores

# 14 Hrs

12 Hrs

#### Hrs

	Effect from Acade		(- 18)	
COMPUTER SCIENCE	CSC-501C	2018-'19	B.Sc.(MPCs)	
SEMESTER – V	PAPER – V	Max. Mai	rks 75 vstems	
<u>NO Of Hours: 4No Of Cr</u>	edits: 3	Pa	ss Marks 30	
	Section-A			
Answer any <b><u>FIVE</u></b> Questions	. Each question carri	es <b>FIVE</b> Mark	s	5x5=25N
1. Explain the Components	of Database System.			
2. Explain Relational Data M	Model.			
3. Write about Relational Se	et Operators.			
4. Explain Integrity Rules.				
5. Describe BCNF.				
6. Differences between Cen	tralized and Decentra	alized design.		
7. Write about Special Func	tions.			
8. Explain Stored Procedure	·S.			
	Section-B			
Answer any <b><u>FIVE</u></b> Questions	. Each question carri	es <b>TEN</b> Marks		5X10=5
9. What is File? Explain the	problems with File s	system		
10. Explain the Degree of Da	ta Abstraction.			
11. Explain E.F.CODDs' rule	es.			
12. Explain Extended Entity	Relationship Model.			
13. Explain the concept of No	ormal Forms.			
14. Explain about SDLC.				
	ammanda			

COMPUTER SCIENCE	CSC-501C	2018-'19	B.Sc.(MPCs)
SEMESTER – VPAPER – V	Max. Marks 75	Pass Mark	s 30

Guidelines for paper setting 'DATA BASE MANAGEMENT SYSTEMS' Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

 (With Effect from Academic Year 2017-'18)

 COMPUTER SCIENCE
 CSC-501P
 2018-'19
 B.Sc.(MPCS)

 SEMESTER – V
 PAPER – V
 Max. Marks 50

 Lab List
 DATA BASE MANAGEMENT SYSTEMS
 Pass Marks 25

 No. of Hours per week: 2
 External: 25
 Internal: 25
 Credits: 2

- 1. Creation of college database and establish relationships between tables
- 2. Explain various data type in Oracle.
- 3. Show the structure of the Emp table.
- 4. Show the structure of the DEPT table.
- 5. Explain the syntax of SELECT statement.
- 6. Create a query to display the name, job, hiredate and employee number from emp table.
- 7. Create a query to display unique jobs from the emp table.
- 8. Create a query to display the empno as EMP#, ename as EMPLOYEE and Hire\_date from emp.
- 9. Create a query to display all the data from the EMP table. Separate each column by a comma and name the column THE\_OUTPUT.
- 10. Create a query to display the name and salary of employees earning more than 2850.
- 11. Create a query to display the name and salary for all employees whose salary is not in the range of 1500 and 2850.
- 12. Display the employee name, job and start date of employees hired between February 20,1981 and May 1, 1981. Order the query in ascending order of start date
- 13. Display the employee name and department number of all the employees in departments 10 and 30 in alphabetical order by name.
- 14. List the name and salary of employees who earn more than 1500 & are in department 10 or 30.
- 15. Display the name, salary and commissions and sort data in descending order of salary and commission.
- 16. Display the name and job title of all employees who do not have a manager.
- 17. Display the name, job and salary for all employees whose job is Clerk or Analyst and their salary is not equal to 1000, 3000 or 5000.
- 18. Display the names of all employees where the third letter of their name is an 'A'.
- 19. Display the names of all employees who have two 'L's in their name and are in department 30 or their manager is 7782.
- 20. Display the name, salary and commission for all employees whose commission amount is grater than their salary increased by 10%.
- 21. Explain all the character functions.
- 22. Explain all the number functions.
- 23. Explain all the Date functions.
- 24. Explain different types of JOIN.
- 25. Write a query to display the name, department number and department name for all employees.
- 26. Create a unique listing of all jobs that are in department 30. and include the location of department 30 in the output.
- 27. Write a query to display the employee name, department name and location of all employees who earn a commission.
- 28. Write a query to display the name ,job department number and department name for all employees who work in 'DALLAS'.

- 29. Create a query to display the name and hire date of any employee
- 30. hired after employee BLAKE.
- 31. Display all employees names and hire dates along with their manager's name and hire date for all employees who were hired before their managers.
- 32. Create your own users and give permissions to you and explain GRANT and REVOKE Commands.
- A. <u>Create MOVIE database using the following tables.</u>

MOVIE:Movie no: primary key, varchar2Movie name: NOT NULL, varchar2Movie Type: varchar2Star: Varchar2

CUSTOMER: Customer No: primary key, varchar2 Customer Name: NOT NULL, varchar2 Address: NOT NULL Phone no: Number INVOICE: Invoice no: Varchar2, primary key Movie no: foreign key Customer no: foreign key

Price: NOT NULL, Number

Queries:

- 1. List the movie names that starts with 'p'
- 2. List the number of the movies those price ranges from 15000 and 20000
- 3. List the customers who have phone numbers.
- 4. List the customers who have no phone numbers.
- 5. Display the following string
  - (a) A Customer "customer number" has bought the "movie number" "movie name" with "Price"
- 6. List the customers by calculating price as (price\*tax)/100 where tax=0.5 and rename the column as 'tax'.
- 7. List the movies, which are owned by 2 customers.
- 8. List the customers, who bought 2 picture names.
- 9. List the customers, who are not the range of 15000 and 20000.
- B. <u>Create Student database using the following tables.</u>

STUDENT: Sno : primary key, numberSname : NOT NULL, varchar2Address: Varchar2 COURSE: Sno : Foreign key.Course Name : varchar2 Oueries:

- 1. Alter table by adding a column fees in table COURSE.
- 2. Alter table by modifying the address to VARCHAR2(20)
- 3. Create a view on which the students who joined in one course only.

# PL/SQL.

- 1. Write A Pl/Sql Program To Swap Two Numbers Without Using Third Variable.
- 2. Write A Pl/Sql Program To Generate Multiplication Tables For Numbers 2,4 And 6
- **3.** Write A Pl/Sql Program To Display Sum Of Even Numbers And Sum Of Odd Numbers In The Given Range.
- 4. Write A Pl/Sql Program To Check The Given Number Is Pollinndrome Or Not.
- 5. Write A Pl/Sql Program To Display Top 10 Rows In Emp Table Based On Their Job And Salary.

6. Write A Procedure Update The Salary Of Employee, Who is Not Getting Commission by 10%. **Reference Books:** 

- 1. Oracle Pl/Sql By Example. Benjamin Rosenzweig, Elena Silvestrova, Pearsoneducation 3rd Edition
- 2. Sql & Pl/Sql For Oracle 10g, Black Book, Dr.P.S. Deshpande

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2017-'18)

COMPUTER SCIENCE	CSC-502C	2018-'19	B.Sc.(MPCs)	
SEMESTER – V	PAPER – VI Ma	x. Marks 75	Syllabus	

#### SOFTWARE ENGINEERING

NO of Hours: 4No Of Credits: 3

#### **Course Objectives**

The Objective of the course is to assist the student in understanding the basic theory of software engineering, and to apply these basic theoretical principles to a group software development project.

#### **UNIT-I: Introduction to Software Engineering & Process**

*The Evolving Role of Software*– Software - The Changing Nature of Software, Software Myths, Legacy Software.

*Process*: Software Engineering-A Layered Technology - A Process Framework - The Capability Maturity Model Integration (CMMI) - Process Patterns, Process Assessments - Personal And Team Process Models: Personal Software Process(PSP), Team Software Process (TSP).

#### **Unit-II: Process Models**

The Waterfall Models - Increment Process Models: The Increment Model, The RAD Model -Evolutionary Process Models: Prototyping, The Spiral Model, The Concurrent Development Model - The Unified Process: Phases of The United Process, Unified Process Work Products.

#### **Unit-III: Requirements Engineering**

Requirements Engineering Tasks - Initiating The Requirements Engineering Process - Eliciting Requirements: Collaborative Requirements Gathering, Quality Function Deployment, User Scenarios, Elicitation Work Products - Negotiating Requirements - Validating Requirements.

#### **Unit-IV: Analysis Model**

Requirements Analysis - Analysis Modelling Approaches - Data Modelling Concepts - Object-Oriented Analysis - Scenario-based Modelling - Flow-Oriented Modelling - Class-Based Modelling- Creating a Behavioural Model: Identifying Events with the Use-Case, State Representations.

#### **Unit-V: Design Engineering**

Design Process And Design Quality - Design Concepts - The Design Model: Data Design Elements, Architectural Design Elements, Interface Design Elements, Component-Level Design Elements.

#### **Prescribed Text Book:**

1. Software Engineering – A Practitioner's Approach, Sixth Edition - Roger S Pressman, TATA McGrawHill: Chapters: 1,2,3,7,8 and 9)

#### **Reference Books:**

- 1. Software Engineering Principles and Practice by Deepak Jain Oxford University Press
- 2. Sommerville, "Software Engineering", Eighth Edition, Pearson Education, 2007

**Student Activity:** Visit any financial organization nearby and prepare requirement analysis report 2. Visit any industrial organization and prepare risk chart.

#### 10Hrs

12Hrs

14 Hrs

### Pass Marks 30

# 12Hrs

COMPUTER	SCIENCE	CSC-502C	2018-'19	B.Sc.(MPCs)	
CMESTER – V	PAPEI	R – VI	Ma	ax. Marks 75	
el Paper	SOF	TWARE ENGIN	EERING		
of Hours: 4No Of (	Credits: 3		Pass	Marks 30	
		<u>Section – A</u>			
Answer any <b>FIV</b>	<u>E</u> Questions.	Each question car	ries <b>FIVE</b> Mai	rks	4x5=251
1. Write about S	Software Lay	ered Technology			
2. Explain abou	t Process Fra	mework?			
3. Explain abou	t RAD Mode	21			
4. Explain abou	t Component	Based Developme	ent Model		
5. Write about I	Requirement	Analysis?			
6. Explain Valio	lating Requir	rements			
7. Explain abou	t Domain An	alysis?			
8. Explain abou	t Modularity	?			
		Section – B			
Answer any <b>FIV</b>	E Questions.	Each question car	ries <b>TEN</b> Marl	ks	5X10=5
9. Explain abou	t CMMI				
10. Explain abo	ut Software I	Myths			
11. Explain abo	ut Increment	al Model			
12. Explain abou	ut Unified Pro	ocess			
13. Explain abou	ıt Requireme	nts Engineering Ta	isks		
14. Explain Elici	ting Require	ments.			
15. Explain Scen	ario based M	odelling.			
16 Write about o	lesign concer	nts in design engine	pering		

COMPUTER SCIENCE	CSC-502	2018-'19	B.Sc.(MPCs)		
SEMESTER – VPAPER – V Max. Marks 75 Pass Marks 30					
Guidelines for paper setting 'SOFTWARE ENGINEERING'					

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

COMPUTER SCIENCE	CSC-502C	2018-'19	B.Sc.(MPCS)
SEMESTER – V	PAPER	– VI	Max. Marks 50
Lab List S No. of Hours per week: 2	OFTWARE ENG External: 25	SNEERING Internal	Pass Marks 25 : 25 Credits:
. <u>ATM</u>			
1.Objective of an ATM System.	2. U	Jse-case Diagra	m of an ATM System
3. Class Diagram of an ATM Sys	stem 4. S	equence Diagra	am of an ATM System
5. Activity Diagram of an ATM	System 6. S	tate Diagram o	f an ATM System
7. Deployment Diagram of an A	ГМ System 8. Е	ER Diagram of a	an ATM System
. Library management System			
1. Objective of Librarymanagem	ent System.2. Use	e-case Diagram	of Librarymanagement
3. Class Diagram of Library man	agement System4	. Sequence Dia	gram of Library management
5. Activity Diagram of Library n	nanagement Syste	m6. State Diag	ram of Library management
7. Deployment Diagram of Libra	ry management S	ystem8. ER Di	agram of Library managemen
. Barcode Reader			
1. Objective of Barcode Reader	2. U	Jse-case Diagra	m of Barcode Reader
3. Class Diagram of Barcode Rea	ader 4. S	equence Diagra	am of Barcode Reader
5. Activity Diagram of Barcode F	Reader 6. State Dia	agram ofBarcoc	le Reader
7. Deployment Diagram ofBarco	de Reader 8. E	ER Diagram of E	arcode Reader
.Safe Home System			
1. Objective of Safe Home Syste	m.	2. Use-case	Diagram of Safe Home Syste
3. Class Diagram of Safe Home	System 4. S	equence Diagra	am of Safe Home System
5. Activity Diagram ofSafe Hom	e System	6. State Dia	gram ofSafe Home System
7. Deployment Diagram of Safe	Home System	8. ER Diag	ram of Safe Home System
. Online Book Store System			
1. Objective of Online Book Stor	re System 2. U	Jse-case Diagra	m of Online Book Store Syste
3. Class Diagram of Online Bool	Store System 4.	Sequence Diag	ram of Online Book Store

- 5. Activity Diagram of Online Book Store System 6. State Diagram of Online Book Store System
- 7. Deployment Diagram of Online Book Store System8. ER Diagram of Online Book Store

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18)

	· · · · · · · · · · · · · · · · · · ·				/	
	COMPUTER SCIENC	CE CSC-60	1(GE)	2018-'19	B.Sc.(MPCs)	
SEM	ESTER – VI PA	PER – VII	Max.	Marks 75		
<u>Syllabu</u>	<u>15</u>	WEB TEC	HNOLO	GIES		
NO Of Hours: 4 <u>No of Credits: 3</u>		3		Pass Mark	ks 30	

#### **Course Objectives:**

- 1. To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services.
- 2. To provide skills to design interactive and dynamic web sites.

#### **Unit -I** Introduction to XHTML:

Introduction to HTML, Basic html, Document body text, Hyper links, Adding more formatting Lists, Tables, Images, Multimedia Objects, Frames, Forms and XHTML.

#### Unit- II: CSS:

Cascading Style Sheets: Introduction, Defining your own styles, properties and values in styles, Formatting blocks of information, Layers.

Java Script: java Script, the basics, Variables, String Manipulations, Mathematical functions, Statements, Operators, Arrays, Functions.

#### Unit -III: Objects in Java Script & Dynamic HTML with Java Script

Objects in Java Script: Data and objects in java script, Regular expressions, Exception Handling, Built in objects, Events.

Dynamic HTML with Java Script: Data validation, Opening a new window, Messages and Confirmations, The status bar, Writing to a different frame, Rollover buttons, Moving images, Multiple pages in a single download, A text-only menu system, Floating logos.

#### Unit -IV: XML Defining Data for Web Applications **12 Hrs**

XML: Introduction to XML, Basic XML, document type definition, XML Schema, Document object model, presenting XML, Using XML parser.

UNIT-V: JSP: JSP Lifecycle, Basic Syntax, EL (Expression Language), EL Syntax, Using EL Variables

#### **Prescribed Books:**

- 1. Chris Bates, Web Programming Building Internet Application, Second Edition, Wiley (2007)
- 2. Head First Servlets and JSP 2<sup>nd</sup> Edition, Bryan Basham, Kathy Sierra
- 3. Uttam Kumar Roy, Web Technologies from Oxford University Press

#### **Student Activities:**

- 1. Prepare a web site for your college
- 2. Prepare your personal website

12 Hrs

# 12 Hrs

	COMPUTER SCIENCE	CSC-601(GE)	2018-'19	<b>B.Sc.(MPCs)</b>				
SEM	ESTER – VI PAPE	R – VII Max. I	Marks 75					
Model	VIodel Paper WEB TECHNOLOGIES							
No O	f Hours: 4 <u>No of Credits: 3</u> P	ass Marks 30						
1	awar EIVEQuastions Each Q	<u>Section -A</u>	Marlea	5 V 5-25M				
An	swei <u><b>FIVE</b></u> Questions. Each Q	uestion carries <b>FIVE</b> 1	viarks.	5 A 3=23M				
1.	Write about structure of HT	ML Document with an	n example					
2.	Explain about lists in HTML							
3.	Write about properties used in	n Style Sheet						
4.	Write about arrays in Java So	cript						
5.	Describe Data Object							
6.	Write about Rollover buttons							
7.	Describe XML Elements							
8.	Write the syntax of EL and E	L variables						

#### Section-B

Answer <u>FIVE</u>the Questions. Each Question carries TEN Marks 5 X 10=50M

- 9. Explain about hyper links? Write about how to link another pages
- 10. What is Form? Explain about forms with examples
- 11. What is CSS? How to design Cascading style sheet
- 12. Explain about Mathematical Functions
- 13. Explain about Regular Expressions
- 14. Write about Data validations in DHTML
- 15. Explain about Document Object Model
- 16. Explain about JSP Lifecycle with neat diagram

	COMPUTER SO	CIENCE	CSC-601(0	GE)	2018-'19	B.Sc.(MPCs)	
SEMI	ESTER – VI	PAPER	– VII	Max	x. Marks 75	Pass Marks 30	

Guidelines for paper setting 'WEB TECHNOLOGIES'

#### Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	(With ]	Effect from Acader	nic Year 2017-'1	8)			
	COMPUTER SCIENCE	CSC-601(GE)	2018-'19	B.Sc.(MPCs)			
L	SEMESTER – VI	PAPER	R – VI	Max. Marks 50			
Lab Lis	t WE	B TECHNOLOG	IESPass Marks	25			
No. of H	Iours per week: 2	External: 25	Internal: 25	Credits: 2			
1.	Write an HTML program to o	lemonstrate text for	rmatting, working	g with images and hyper links			
2. 1	2. Write an HTML program to create Student Marks sheet preparation.						

- 3. Write an HTML program to explain String manipulation-using functions.
- 4. Write an HTML program to explain <form> events
- 5. Write an HTML program to perform all arithmetic operations using java script.
- 6. Develop a HTML Form, which accepts any Mathematical expression. Write JavaScript code to Evaluates the expression and Displays the result.
- 7. Create a form for Student information. Write JavaScript code to find Total, Average, Result and Grade.
- 8. Create a form for Employee information. Write JavaScript code to find DA, HRA, PF, TAX, Gross pay, Deduction and Net pay.
- 9. Create a form consists of a Multiple choice questions that validates the answer dynamically and displaying result using java script.
- 10. Write a java script to work with following
- a. Date display b. Calendar c. Copy Selected Text
  - b. IP Address

	COMPUTER SCIENCE	CSC-602CE	2018-'19	B.Sc.(MPCs)
SEMES	STER – VI	PAPER – VIII	Ma	x. Marks 75

# <u>Syllabus</u> PHP, MySql & Word Press <u>NO Of Hours:4Credits: 3</u> Pass Marks 30

**Course Objective:** To introduce the concept of PHP and to give basic Knowledge of PHP. Learn about PHP Syntax., Arrays, PHP Loops, PHP and MySQL connectivity, PHP form validation, PHP form handling. Overview of MySQL and PHPMyAdmin, Understand basic concepts of how a database stores information via tables, Understanding of SQL syntax used with MySQL, Learn how to retrieve and manipulate data from one or more tables, Know how to filter data based upon multiple conditions, Updating and inserting data into existing tables, Learning how the relationships between tables will affect the SQL, The advantages of store procedures with storing data using variables and functions, How SQL can be used with programming languages like PHP to create dynamic websites for visitors, Review of some sample PHP projects interacting with MySQL.

#### UNIT-1: Installing and Configuring MySQL:

#### 10 Hrs

Current and Future Versions of MySQL, How to Get MySQL, Installing MySQL on Windows, Trouble Shooting your Installation, Basic Security Guidelines, Introducing MySQL Privilege System, Working with User Privileges. Installing and Configuring Apache: Current and future versions of Apache, Choosing the Appropriate Installation Method, Installing Apache on Windows, Apache Configuration File Structure, Apache Log Files, Apache Related Commands, Trouble Shooting. Installing and Configuring PHP: Building PHP with Apache on Windows, php.ini.Basics, The Basics of PHP scripts. The Building blocks of PHP: Variables, Data Types, Operators and Expressions, Constants. Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output.

#### **Unit – II: Working with Functions**:

What is function?, Calling functions, Defining Functions, Returning the values from User-Defined Functions, Variable Scope, Saving state between Function calls with the static statement, more about arguments. Working with Arrays: What are Arrays? Creating Arrays, Some Array-Related Functions. Working with Objects: Creating Objects, Object Instance Working with Strings, Dates and Time: Formatting strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.

# **Unit – III: Working with Forms:**

Creating Forms, Accessing Form Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads. Working with Cookies and User Sessions: Introducing Cookies, Setting a Cookie with PHP, Session Function Overview, Starting a Session, Working with session variables, passing session IDs in the Query String, Destroying Sessions and Unsetting Variables, Using Sessions in an Environment with Registered Users. Working with Files and Directories: Including Files with inclue(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files, Writing or Appending to a File, Working with Directories.

# 10 Hrs

#### **Unit – IV: Introduction to MySQL**

#### 15Hrs

Introduction to My SQLand Interfacing with Databases through PHP Understanding the database design process: The Importance of Good Database Design, Types of Table Relationships, Understanding Normalization. Learning basic SQL Commands: Learning the MySQL Data types, Learning the Table Creation Syntax, Using Insert Command, Using SELECT Command, Using WHERE in your Queries, Selecting from Multiple Tables, Using the UPDATE command to modify records, Using RELACE Command, Using the DELETE Command, Frequently used string functions in MySQL, Using Date and Time Functions in MySQL. Interacting with MySQL using PHP: MySQL Versus MySQLi Functions, Connecting to MySQL with PHP, Working with MySQL Data. **Unit – V:Word press** 

#### 10Hrs

Word press: Introduction to word press, servers like wamp, bitnami e.tc, installing and configuring word press, understanding admin panel, working with posts and pages, using editor, text formatting with shortcuts, working with media-Adding, editing, deleting media elements, working with widgets, menus. Working with themes-parent and child themes, using featured images, configuring settings.

#### **References:**

Julie C. Meloni, PHP MySQL and Apache, SAMS Teach yourself, Pearson Education (2007).
 Xue Bai Michael Ekedahl, The web warrior guide to Web Programming, Thomson (2006).

COMPUTER SCIENCE	CSC-602CE	2018-'19	B.Sc.(MPCs)
SEMESTER – VI	PAPER – VIII	Max. Marks	75
<u>Model Paper</u> PHP, MySql & Word	Press		
NO Of Hours:3	No Of Credits: 3		Pass Marks 30
	Section- A		
Answer <b><u>FIVE</u></b> Questions. Eac	ch Question carries <b>FIV</b>	<b>E</b> Marks.	5*5=2
1 .Define variable and list the stan	dard data types in PHP		
2. What is Break and Continue sta	tements in PHP.		
3. Define Function and write a pro	gram for Function?		
4. Write programs to pass an arguing	ment to function by Val	ue and Refer	ence in PHP.
5. Explain how to create a simple	form in PHP.		
6. What is Cookie and explain how	v to accessing cookie ir	PHP.	
7. Describe Update Command in I	MySQL with Example.		
8. Write a short notes on Word Pre-	ess.		
	Section- B		
Answer <b><u>FIVE</u></b> Questions. Eac	h Question carries TEN	Marks	5*10=

- 9. Explain about Operators and Expressions available in PHP with examples.
- 10. Explain about Loops and switching statements in PHP with examples.
- 11. Explain about Arrays and related functions to arrays in PHP with examples.
- 12. Explain the following Strings functions with examples

a. strlen() b. strstr() c. strpos() d. substr() e. strtok()

- 13. Explain how to send Mail on form submission in PHP.
- 14. Explain how to work with Sessions in PHP.
- 15. Explain how to insert & retrieve data with MySql in PHP.
- 16. Explain how to work with Themes and also featured images in Word Press.

	COMPUTER SC	CIENCE	CSC-602CE	2018-'19	B.Sc.(MPCs)
SEM	ESTER – VI	PAPER	R – VIII Max. Mark	s 75	Pass Marks 30

Guidelines for paper setting 'PHP, MySql & Word Press'

#### Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(Essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	(With Effect from Academic Year <b>2018-2019</b> )					
	COMPUTER SCIENCE	CSC-602CE	2018-'19	B.Sc.(MPCS)		
SEN	AESTER – VI	PAPER –	VIII	Max. Marks 50		
Lab	List PHP, MySQL& Word	Press LabPass Ma	rks 25			
No.	of Hours per week: 3	External: 25	Internal: 25	Credits: 2		

MySQL Lab Cycle

Cycle -1

An Enterprise wishes to maintain the details about his suppliers and other corresponding details. For that he uses the following details.

Suppliers (sid: Integer, sname: string, address: string)

Parts (pid: Integer, pname: string, color: string)

Catalog (sid: integer, pid: integer, cost: real)

The catalog relation lists the prices charged for parts by suppliers.

Write the following queries in SQL:

- 1. Find the pnames of parts for which there is some supplier.
- 2. Find the snames of suppliers who supply every part.
- 3. Find the snames of supplier who supply every red part.
- 4. Find the pnames of parts supplied by London Supplier abd by no one else.
- 5. Find the sid's of suppliers who charge more for some part than the average cost of that part.
- 6. For each part, find the sname of the supplier who charges the most for that part.
- 7. Find the sid's of suppliers who supply only red parts.
- 8. Find the sid's of suppliers who supply a red and a green part.
- 9. Find the sid's of suppliers who supply a red or green part.

10. Find the total amount has to pay for that suppler by part located from London.

Cycle – 2

An organisation wishes to maintain the status about the working hours made by his employees. For that he uses the following tables.

Emp (eid: integer, ename: string, age: integer, salary: real)

Works (eid: integer, did: integer, pct\_time: integer)

Dept (did: integer, budget: real, managerid: integer)

An employee can work in more than one department; the pct\_time field of the works relation shows the percentage of time that a given employee works in a given department.

Resolve the following queries.

1. Print the names and ages of each employee who works in both Hardware and Software departments.

2. For each department with more than 20 full time equivalent employees (i.e., where the parttime and full-time employees add up to at least that many full-time employees), print the did's together with the number of employees that work in that department.

- 3. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she work in.
- 4. Find the managerid's of managers who manage only departments with budgets greater than 1,000,000.
- 5. Find the enames of managers who manage the departments with largest budget.

6. If a manager manages more than one department, he or she controls the sum of all the budgets for those departments. Find the managerid's of managers who control more than 5,000,000.

- 7. Find the managerid's of managers who control the highest amount.
- 8. Find the average manager salary.

#### PHP Lab Cycle

- 1. Write a PHP program to Display "Hello"
- 2. Write a PHP Program to display the today's date.
- 3. Write a PHP Program to read the employee details.
- 4. Write a PHP Program to display the
- 5. Write a PHP program to prepare the student marks list.
- 6. Write a PHP program to generate the multiplication of two matrices.
- 7. Write a PHP Application to perform demonstrate the college website.
- 8. Write a PHP application to add new Rows in a Table.
- 9. Write a PHP application to modify the Rows in a Table.
- 10. Write a PHP application to delete the Rows from a Table.
- 11. Write a PHP application to fetch the Rows in a Table.
- 12. Develop an PHP application to make following Operations
  - i. Registration of Users.
  - ii. Insert the details of the Users.
  - iii. Modify the Details.
  - iv. Transaction Maintenance.
    - a) No of times Logged in
    - b) Time Spent on each login.
    - c) Restrict the user for three trials only.
    - d) Delete the user if he spent more than 100 Hrs of transaction.

#### Wordpress Lab

- 1. Installation and configuration of word press.
- 2. Create a site and add a theme to it.

	COMPUTER SCIENCE	CSC-603CE	2018-'19	<b>B.Sc.(MPCs)</b>
SEME	STER – VI	PAPER – VIII	Ma	x. Marks 75

#### Syllabus Advanced java Script: JQUERY/AJAX/JSON/ANGULAR JS Pass Marks 30 NO Of Hours:4Credits: 3

**Course Objective:** To impart knowledge in designing a webpage in a structured way by using advanced java script ie., using different scripting languages

# **UNIT-1:JQuery – Basics:**

String, Numbers, Boolean, Objects, Arrays, Functions, Arguments, Scope, Built-in Functions. jQuerySelectors: CSS Element Selector, CSS Element ID Selector, CSS Element Class Selector, CSS Universal Selector, Multiple Elements E, F, G Selector, Callback Functions. jQuery – DOM Attributes: Get Attribute Value, Set Attribute Value. jQuery – DOM Traversing : Find Elements by index, Filtering out Elements, Locating Descendent Elements, JQuery DOM Traversing Methods. 10 Hrs

# Unit – II: jQuery – CSS Methods :

Apply CSS Properties, Apply Multiple CSS Properties, Setting Element Width & Height, JOuery CSS Methods. jQuery - DOM Manipulation Methods: Content Manipulation, DOM Element Replacement, Removing DOM Elements, Inserting DOM elements, DOM Manipulation Methods. jQuery – Events Handling: Binding event handlers, Removing event handlers, Event Types, The Event Object, The Event Attributes. jOuery – Effects: JOuery Effect Methods, jOuery Hide and Show, jOuery Toggle, jQuery Slide – slideDown, slideUp, slideToggle, jQuery Fade – fadeIn, fadeOut, fadeTo, jQuery **Custom Animations** 15 Hrs

# Unit – III: Intro to jQuery UI

, Need of jQuery UI in real web sites, Downloading jQuery UI, Importing jQuery UI, Draggable, Droppable, Resizable, Selectable, Sortable, Accordion, Auto Complete, Button Setw, Date Picker, Dialog, Menu, Progress Bar, Slider, Spinner, Tabs, Tooltip, Color Animation, Easing Effects, addClass, removeClass, Effects, jQuery UI themes, Customizing jQuery UI widgets / plug-ins, jQuery UI with CDN, Consuming jQuery Plug-ins from 3rd party web sites jQuery Validations, Intro to jQuery validation plug-in, Using jQuery validation plug-in, Regular expressions. 15 Hrs

# **Unit – IV: Intro to AJAX**

Need of AJAX in real web sites. Getting database data using iOuervAJAX. Inserting. Updating, Deleting database data using jQuery-AJAX Grid Development using jQuery-AJAX Intro to JSON JSON syntax, Need of JSON in real web sites, JSON object, JSON array, Complex JSON objects, Reading JSON objects using jQuery.

# Unit – V: Intro to AngularJS

Need of AngularJS in real web sites, Downloading AngularJS, AngularJS first example, AngularJS built-in directives, AngularJS expressions, AngularJS modules, AngularJS controllers, AngularJS scope AngularJS dependency injection AngularJS, bootstrapping AngularJS data bindings, AngularJS \$watch, AngularJS filters, AngularJS events, AngularJS AJAX, Ng-repeat, AngularJS with json arrays, AngularJS registration form and login form, AngularJS CRUD operations, AngularJS Animations, AngularJS validations AngularJS \$q, AngularJS custom values, AngularJS custom factories, AngularJS custom services, AngularJS custom directives, AngularJS custom providers, AngularJS Routing, AngularUI Routing.

# **References:**

1. jQuery UI 1.8: The User Interface Library for jQuery by Dan Wellman

2. jQuery Fundamentals by Rebecca Murphey 3. Ajax: The Complete Reference by Thomas A. Powell

#### 15 Hrs

	COMPUTER SCIENCE	CSC-603CE	2018-'19	B.Sc.(MPCs)	
SEM	ESTER – VI	PAPER – VIII	Max. Marks	75	
Model	<u>Paper</u> Advanced java Script	: JQUERY/AJAX/JS	ON/ANGULA	AR JS	
NO O	f Hours:3	No Of Credits: 3		Pass Marks 30	

#### Section- A

Answer <u>FIVE</u> Questions. Each Question carries FIVE Marks.5\*5=25M

- 1 .What is jquery? Write a simple program to display welcome message.
- 2. Write a jquery-dom attributes.
- 3. How we can apply css properties in j query?
- 4. Write a program for jquery fade In, fade Out.
- 5. Discuss in detail about jquery UI categorization.
- 6. Write a need of AJAX in real websites.
- 7. What is ISON? Write a syntax &need of ISON in real websites.
- 8. Write a short notes angularJS built-in directives.

#### Section-B

Answer **<u>FIVE</u>** Questions. Each Question carries **TEN** Marks **5\*10=50M** 

- 9. Explain in detail about DOM traversing methods.
- 10. Explain detail about jquery-dom manipulation methods.
- 11. Explain detail about jquery even handling methods.
- 12. Write a program for droppable , resizable using jquery UI.
- 13. How can we manipulate the data in a database using jquery-AJAX.
- 14. What is JSON object ? Discuss in detail about complex JSON objects.
- 15. What is angular JS ? Need of angular JS in real websites &write any example program.
- 16. Write a program for registration from and login from using Angular JS.

	COMPUTER SC	CIENCE	CSC-603CE	2018-'19	B.Sc.(MPCs)
SEMI	ESTER – VI	PAPER	L – VIII Max. Mark	s 75	Pass Marks 30

Guidelines for paper setting <u>--'Advanced java Script: JQUERY/AJAX/JSON/ANGULAR JS'</u>

#### Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(Essay questions)
Unit-1	2	1
Unit-2	2	2
Unit-3	1	1
Unit-4	2	2
Unit-5	1	2

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

COMPUTER SCIENCECSC-603CE2018-'19B.Sc.(MPCS)SEMESTER – VIPAPER – VIIIMax. Marks 50Lab ListAdvanced java Script: JQUERY/AJAX/JSON/ANGULAR JS<br/>No. of Hours per week: 3Pass Marks 25Internal: 25Internal: 25

(With Effect from Academic Year **2018-'19**)

### Credits: 2

1. Using jQuery find all textareas, and makes a border. Then adds all paragraphs to the jQuery object to set their borders red.

2. Using jQuery add the class "w3r\_font\_color" and w3r\_background to the last paragraph element.

3. Using jQuery add a new class to an element that already has a class.

4. Using jQuery insert some HTML after all paragraphs.

5. Using jQuery insert a DOM element after all paragraphs.

6. Convert three headers and content panels into an accordion. Initialize the accordion And specify the animate option

7. Convert three headers and content panels into an accordion. Initialize the accordion and specify the height.

8. Create a pre-populated list of values and delay in milliseconds between a keystroke occurs and a search is performed.

9. Initialize the button and specify the disable option.

10. Initialize the button and specify an icon on the button.

11. Initialize the button and do not show the label.

12. Create a simple jQuery UI Datepicker. Now pick a date and store it in a textbox.

13. Initialize the date picker and specify a text to display for the week of the year column heading.

	COMPUTER SCIENCE	CSC-601(EL-A)	2018-'19	B.Sc.(MPCs, MCCs)	
	SEMESTER – VI	PAPER – VII Max. N	Aarks 75		-
<u>Syllab</u>	us	<b>OPERATING SYST</b>	EMS		
	No Of Hours 3	Credits 3		Pass Marks 30	

#### **Course Objectives**

1. To understand the services provided by and the design of an operating system.

2. To understand the structure and organization of the file system.

3. To understand what a process is and how processes are synchronized and scheduled.

4. To understand different approaches to memory management.

5. Students should be able to use system calls for managing processes, memory and the file system.

### **Unit – I: Operating System Introduction:**

**O**perating Systems Objectives and functions, Computer System Architecture, OS Structure, OS Operations, Evolution of Operating Systems - Simple Batch, Multi programmed, time shared, Parallel, Distributed Systems, Real-Time Systems, Operating System services.

### **Unit – II: Process and CPU Scheduling:**

Process concepts - The Process, Process State, Process Control Block, Threads, Process Scheduling - Scheduling Queues, Schedulers, Context Switch, Pre-emptive Scheduling, Dispatcher, Scheduling Criteria, Scheduling algorithms, Case studies: Linux, Windows.Process Coordination - Process Synchronization, The Critical section Problem, Synchronization Hardware, Semaphores, and Classic Problems of Synchronization, Monitors.Case Studies: Linux, Windows.

**Unit – III: Memory Management and Virtual Memory Management** 

Logical & physical Address Space, Swapping, Contiguous Allocation, Paging, Structure of Page Table. Segmentation, Segmentation with Paging, Virtual Memory, Demand Paging, Performance of Demanding Paging, Page Replacement Page Replacement Algorithms, Allocation of Frames.

#### Unit – IV: File System Interface and Mass Storage Structure

The Concept of a File, Access methods, Directory Structure, File System Mounting, File Sharing, Protection, File System Structure. Overview of Mass Storage Structure, Disk Structure, Disk Attachment, Disk Scheduling.

# Unit - V: Deadlocks

System Model, Deadlock Characterization, Methods for Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection and Recovery from Deadlock.

# **Prescribed Text Book:**

- 1. Operating System Principles, Abraham Silberchatz, Peter B. Galvin, Greg Gagne 8th Edition. **Reference Books:**
- 2. Principles of Operating Systems by Naresh Chauhan, OXFORD University Press
- 3. Operating systems Internals and Design Principles, W. Stallings, 6th Edition, Pearson.
- 4. Modern Operating Systems, Andrew S Tanenbaum 3rd Edition PHI.
- 5. Operating Systems A concept based Approach, 2nd Edition, D. M. Dhamdhere, TMH.

# 6. Principles of Operating Systems, B. L. Stuart, Cengage learning, India Edition.

Student Activity: 1. Load any new operating system into your computer.

2. Partition the memory in your system 3. Create a semaphore for process synchronization

#### 12 Hrs

**10 Hrs** 

14 Hrs

# 12 Hrs

COMPUTER	SCIENCE	CSC-601(EL -A)	2018-'19	B.Sc.(MPCs)
SEMESTER – VI	PAPE	R – VII Max. Marks	75	
<u>Model Paper</u>	OPI	ERATING SYSTEM	15	
NO Of Hours: 3No Of	Credits: 3	Pa	ss Marks 30	
		Section- A		

Answer **<u>FIVE</u>**Questions. Each Question carries **FIVE** Marks. **5X5=25M** 

- 1. What is Operating System? Explain Operating System structure?
- 2. Describe Operating System Operations?
- 3. Explain process control Blocks.
- 4. Write about Dining Philosophers Problem?
- 5. Differences between Logical Address and Physical Address Spaces
- 6. Write about Virtual Memory?
- 7. Write about file Operations?
- 8. Write about Banker's Algorithm?

#### Section-B

Answer **<u>FIVE</u>** the Questions. Each Question carries **TEN** Marks **5X10=50M** 

- 9. Explain Computer System Architecture?
- 10. Explain different types of Operating Systems?
- 11. Explain about process Scheduling?
- 12. Explain about Semaphore?
- 13. Explain about Swapping?
- 14. Explain about page Replacement?
- 15. Explain about Disk Scheduling?
- 16. Explain dead lock Characterisation?

SEMESTER - VI       PAPER - VII       Max. Marks 75         Svilabus       COMPUTER NETWORKS         NO Of Hours:3 Credits: 3       Pass Marks 30         Course Objectives:       1. To provide an introduction to the fundamental concepts on data communication and the design of computer networks.         2. To get familiarized with the basic protocols of computer networks.       12 Hrs         Unit - I: Introduction & The Physical Layer:       12 Hrs         Uses of Computer Networks, Network Hardware, Network Software, Reference Models, Example       Networks.         Networks. The Theoretical Basis for Data Communication, Guided Transmission Media, Wireless       Transmission, The Public Switched Telephone Network,         Unit - II: The Data Link Layer & The Medium Access Control Sub-layer:       12 Hrs         Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols.       The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching.         Unit - II: The Network Layer:       12 Hrs         Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service       Internet         Unit - IV: The Transport Layer:       12 Hrs         The Transport Service, Elements of Transport Protocols: TCP.       12 Hrs         Unit - V: The Application Layer:       12 Hrs         DNS - The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video, Cont	Γ	COMPLITER SCI	ENCE	CSC-601 (EL-B)	2018-'19	B.Sc.(MPCs)	
SEWIESTER - VI       MAX. Marks 75         Syllabus       COMPUTER NETWORKS         NO Of Hours: 3 Credits: 3       Pass Marks 30         Course Objectives:       1.         1. To provide an introduction to the fundamental concepts on data communication and the design of computer networks.         2. To get familiarized with the basic protocols of computer networks.         Unit - I: Introduction & The Physical Layer:       12 Hrs         Uses of Computer Networks, Network Hardware, Network Software, Reference Models, Example         Networks. The Theoretical Basis for Data Communication, Guided Transmission Media, Wireless         Transmission, The Public Switched Telephone Network,         Unit - II: The Data Link Layer & The Medium Access Control Sub-layer:       12 Hrs         Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols.       The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching.         Unit - III: The Network Layer:       12 Hrs         Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service       Internet Working, Network Layer in the Internet.         Unit - IV: The Transport Layer:       12 Hrs         The Transport Service, Elements of Transport Protocols: TCP.       Unit - V: The Application Layer:         Unit - V: The Application Layer:       12 Hrs         DNS - The Domain Name System, Electronic Mail	SEMES				Morks 75		
Syllabus       COMPUTER NETWORKS         NO Of Hours:3 Credits: 3       Pass Marks 30         Course Objectives:       1.         1. To provide an introduction to the fundamental concepts on data communication and the design of computer networks.       2.         2. To get familiarized with the basic protocols of computer networks.       12 Hrs         Uses of Computer Networks, Network Hardware, Network Software, Reference Models, Example       Networks. The Theoretical Basis for Data Communication, Guided Transmission Media, Wireless         Transmission, The Public Switched Telephone Network,       12 Hrs         Data Link Layer & The Medium Access Control Sub-layer:       12 Hrs         Data Link Layer & The Medium Access Control Sub-layer:       12 Hrs         Data Link Layer & The Medium Access Control Sub-layer:       12 Hrs         Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols.       The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching.         Unit – II: The Network Layer:       12 Hrs         Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service       Internet         Internet Working, Network Layer in the Internet.       Unit – IV: The Transport Layer:       12 Hrs         The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet Transport Protocols: UDP, The Internet Transport Protocols: TCP.       12 H	SENIES	$\mathbf{L}\mathbf{K} - \mathbf{V}\mathbf{I}$	FAFE	$\mathbf{K} = \mathbf{V} \mathbf{\Pi}$ Iviax	. WIARKS 75		
NO Of Hours: 3 Credits: 3       Pass Marks 30         Course Objectives:       1. To provide an introduction to the fundamental concepts on data communication and the design of computer networks.         2. To get familiarized with the basic protocols of computer networks.       12 Hrs         Uses of Computer Networks, Network Hardware, Network Software, Reference Models, Example       12 Hrs         Networks. The Theoretical Basis for Data Communication, Guided Transmission Media, Wireless       Transmission, The Public Switched Telephone Network,         Unit – II: The Data Link Layer & The Medium Access Control Sub-layer:       12 Hrs         Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols.       The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching.         Unit – II: The Network Layer:       12 Hrs         Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service       Internet         Unit – IV: The Transport Layer:       12 Hrs         Unit – IV: The Transport Layer:       12 Hrs         The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet       Transport Protocols: UDP, The Internet Transport Protocols: TCP.         Unit – V: The Application Layer:       12 Hrs       12 Hrs         DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video, Content Delivery & Peer-to-Peer.       Prescribed Text Book:	<u>Syllabus</u>	<u>.</u>	CON	MPUTER NETWO	RKS		
Course Objectives:         1. To provide an introduction to the fundamental concepts on data communication and the design of computer networks.         2. To get familiarized with the basic protocols of computer networks.         Unit – I: Introduction & The Physical Layer:       12 Hrs         Uses of Computer Networks, Network Hardware, Network Software, Reference Models, Example         Networks. The Theoretical Basis for Data Communication, Guided Transmission Media, Wireless         Transmission, The Public Switched Telephone Network,       12 Hrs         Data Link Layer & The Medium Access Control Sub-layer:       12 Hrs         Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols.       12 Hrs         The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching.       12 Hrs         Unit – II: The Network Layer:       12 Hrs         Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service       11 Hrs         Internet Working, Network Layer:       12 Hrs         The Transport Layer:       12 Hrs         The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet       12 Hrs         Unit – IV: The Application Layer:       12 Hrs         The Transport Service, Elements of Transport Protocols: TCP.       12 Hrs         Unit – V: The Application Layer:       12 Hrs	<u>NO Of H</u>	ours:3 Credits: 3	Pass	Marks 30			
<ol> <li>To provide an introduction to the fundamental concepts on data communication and the design of computer networks.</li> <li>To get familiarized with the basic protocols of computer networks.</li> <li>Unit – I: Introduction &amp; The Physical Layer: 12 Hrs</li> <li>Uses of Computer Networks, Network Hardware, Network Software, Reference Models, Example</li> <li>Networks. The Theoretical Basis for Data Communication, Guided Transmission Media, Wireless</li> <li>Transmission, The Public Switched Telephone Network,</li> <li>Unit – II: The Data Link Layer &amp; The Medium Access Control Sub-layer: 12 Hrs</li> <li>Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols.</li> <li>The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching.</li> <li>Unit – III: The Network Layer: 12 Hrs</li> <li>Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service Internet Working, Network Layer in the Internet.</li> <li>Unit – IV: The Transport Layer: 12 Hrs</li> <li>The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet Transport Protocols: UDP, The Internet Transport Protocols: TCP.</li> <li>Unit – V: The Application Layer: 12 Hrs</li> <li>NS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio &amp; Video, Content Delivery &amp; Peer-to-Peer.</li> <li>Prescribed Text Book:</li> <li>Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.</li> <li>Reference Books:</li> <li>Buhshan Trivedi, Computer Networks , Oxford University Press</li> <li>Buhshan Trivedi, Computer Networks , Oxford University Press</li> </ol>	Course (	)bjectives:					
computer networks. 2. To get familiarized with the basic protocols of computer networks. Unit – I: Introduction & The Physical Layer: 12 Hrs Uses of Computer Networks, Network Hardware, Network Software, Reference Models, Example Networks. The Theoretical Basis for Data Communication, Guided Transmission Media, Wireless Transmission, The Public Switched Telephone Network, Unit – II: The Data Link Layer & The Medium Access Control Sub-layer: 12 Hrs Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols. The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching. Unit – III: The Network Layer: 12 Hrs Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service Internet Working, Network Layer in the Internet. Unit – IV: The Transport Layer: 12 Hrs The Transport Service, Elements of Transport Protocols. TCP. Unit – V: The Application Layer: 12 Hrs NNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video, Content Delivery & Peer-to-Peer. Prescribed Text Book: 1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education. Reference Books: 2. Bhushan Trivedi, Computer Networks, Oxford University Press 2. Bhushan Trivedi, Computer Networks, Oxford University Press 2. Haves Textual Computer Networks, Oxford University Press 2. Submather Triveding Computer Networks, Oxford University Press 3. Submather Triveding Computer Networks, Oxford University Press 3. Submather Triveding Computer Networks, Oxford University Press 3. Submather Triveding Computer Networks, Oxford University	1. To pro	vide an introduction	n to the f	undamental concepts	s on data com	munication and the de	esign of
<ol> <li>To get familiarized with the basic protocols of computer networks.</li> <li>Unit – I: Introduction &amp; The Physical Layer:         <ul> <li>Uses of Computer Networks, Network Hardware, Network Software, Reference Models, Example</li> <li>Networks. The Theoretical Basis for Data Communication, Guided Transmission Media, Wireless</li> <li>Transmission, The Public Switched Telephone Network,</li> <li>Unit – II: The Data Link Layer &amp; The Medium Access Control Sub-layer:</li></ul></li></ol>	computer	<sup>•</sup> networks.					
Unit - I: Introduction & The Physical Layer:       12 Hrs         Uses of Computer Networks, Network Hardware, Network Software, Reference Models, Example       Networks. The Theoretical Basis for Data Communication, Guided Transmission Media, Wireless         Transmission, The Public Switched Telephone Network,       12 Hrs         Unit - II: The Data Link Layer & The Medium Access Control Sub-layer:       12 Hrs         Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols.       12 Hrs         The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching.       12 Hrs         Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service       12 Hrs         Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service       12 Hrs         Internet Working, Network Layer in the Internet.       12 Hrs         Unit - IV: The Transport Layer:       12 Hrs         The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet Transport Protocols: UDP, The Internet Transport Protocols: TCP.       12 Hrs         Unit - V: The Application Layer:       12 Hrs         DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video, Content Delivery & Peer-to-Peer.       12 Hrs         Prescribed Text Book:       1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.       Reference Books:	2. To get	familiarized with th	he basic	protocols of compute	er networks.		
Uses of Computer Networks, Network Hardware, Network Software, Reference Models, Example Networks. The Theoretical Basis for Data Communication, Guided Transmission Media, Wireless Transmission, The Public Switched Telephone Network, <b>Unit – II: The Data Link Layer &amp; The Medium Access Control Sub-layer:</b> 12 Hrs Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols. The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching. <b>Unit – II: The Network Layer:</b> 12 Hrs Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service Internet Working, Network Layer in the Internet. <b>Unit – IV: The Transport Layer:</b> 12 Hrs The Transport Service, Elements of Transport Protocols: TCP. <b>Unit – V: The Application Layer:</b> 12 Hrs DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video, Content Delivery & Peer-to-Peer. <b>Prescribed Text Book:</b> 1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education. <b>Reference Books:</b> 2. Bhushan Trivedi, Computer Networks , Oxford University Press 2. Bushan Trivedi, Computer Networks , Oxford University Press 2. Bushan Trivedi, Computer Networks , Oxford University Press	Unit – I:	Introduction & T	he Physi	cal Layer:			12 Hrs
Networks. The Theoretical Basis for Data Communication, Guided Transmission Media, Wireless         Transmission, The Public Switched Telephone Network,         Unit – II: The Data Link Layer & The Medium Access Control Sub-layer:       12 Hrs         Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols.       12 Hrs         The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching.       12 Hrs         Unit – III: The Network Layer:       12 Hrs         Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service       14 Hrs         Internet Working, Network Layer in the Internet.       12 Hrs         Unit – IV: The Transport Layer:       12 Hrs         The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet       12 Hrs         Transport Protocols: UDP, The Internet Transport Protocols: TCP.       12 Hrs         Unit – V: The Application Layer:       12 Hrs         DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video,       Content Delivery & Peer-to-Peer.         Prescribed Text Book:       1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.         Reference Books:       2. Bhushan Trivedi, Computer Networks , Oxford University Press         2. Bushan Trivedi, Computer Networks , Oxford University Press       2. Istras Education	Uses of C	Computer Networks	, Networ	k Hardware, Networ	rk Software, H	Reference Models, Ex	ample
Transmission, The Public Switched Telephone Network, Unit – II: The Data Link Layer & The Medium Access Control Sub-layer: 12 Hrs Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols. The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching. Unit – III: The Network Layer: 12 Hrs Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service Internet Working, Network Layer in the Internet. Unit – IV: The Transport Layer: 12 Hrs The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet Transport Protocols: UDP, The Internet Transport Protocols: TCP. Unit – V: The Application Layer: 12 Hrs DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video, Content Delivery & Peer-to-Peer. Prescribed Text Book: 1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education. Reference Books: 2. Bhushan Trivedi, Computer Networks , Oxford University Press 2. Large E Kurgen Keith W Boon "Commuter Networking Press 2. Large E Kurgen Keith W Boon "Commuter Networking" Third Edition Degraps Education	Networks	s. The Theoretical B	Basis for	Data Communication	n, Guided Tra	nsmission Media, Wi	reless
Unit - II: The Data Link Layer & The Medium Access Control Sub-layer:12 HrsData Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols.The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching.Unit - III: The Network Layer:12 HrsNetwork Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of ServiceInternet Working, Network Layer in the Internet.12 HrsUnit - IV: The Transport Layer:12 HrsThe Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The InternetTransport Protocols: UDP, The Internet Transport Protocols: TCP.12 HrsUnit - V: The Application Layer:12 HrsDNS - The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video,Content Delivery & Peer-to-Peer.Prescribed Text Book:1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.Reference Books:2. Bhushan Trivedi, Computer Networks , Oxford University Press2. Brusse F. Kurase, Keith W. Been, "Commuter Networks", Third Edition, Dearson Education.	Transmis	sion, The Public Sv	vitched 7	Telephone Network,			
Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols. The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching. Unit – III: The Network Layer: 12 Hrs Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service Internet Working, Network Layer in the Internet. Unit – IV: The Transport Layer: 12 Hrs The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet Transport Protocols: UDP, The Internet Transport Protocols: TCP. Unit – V: The Application Layer: 12 Hrs DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video, Content Delivery & Peer-to-Peer. Prescribed Text Book: 1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education. Reference Books: 2. Bhushan Trivedi, Computer Networks , Oxford University Press 3. Imma E Kymana Keith W Page "Commuter Networks" Third Edition Pagenen Education	Unit – II	: The Data Link L	ayer & '	The Medium Acces	s Control Su	b-layer:	12 Hrs
The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching. Unit – III: The Network Layer: Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service Internet Working, Network Layer in the Internet. Unit – IV: The Transport Layer: The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet Transport Protocols: UDP, The Internet Transport Protocols: TCP. Unit – V: The Application Layer: DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video, Content Delivery & Peer-to-Peer. Prescribed Text Book: Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education. Reference Books: Bushan Trivedi, Computer Networks , Oxford University Press Larges E Kurney K with W Been, "Commuter Networking," Third Edition, Dearson Education	Data Linl	k Layer Design Issu	ies, Erro	r Detection and Corr	ection, Slidin	g Window Protocols.	
Unit – III: The Network Layer:       12 Hrs         Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service         Internet Working, Network Layer in the Internet.         Unit – IV: The Transport Layer:       12 Hrs         The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet         Transport Protocols: UDP, The Internet Transport Protocols: TCP.       12 Hrs         Unit – V: The Application Layer:       12 Hrs         DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video,       Content Delivery & Peer-to-Peer.         Prescribed Text Book:       1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.         Reference Books:       2. Bhushan Trivedi, Computer Networks , Oxford University Press         2. Immed E Kurage Keith W Page "Commuter Networks", Third Edition, Dearson Education	The Char	nel Allocation Prol	blem, Mi	ultiple Access Protoc	cols, Ethernet	, Data Link Layer Swi	itching.
Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service Internet Working, Network Layer in the Internet. Unit – IV: The Transport Layer: 12 Hrs The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet Transport Protocols: UDP, The Internet Transport Protocols: TCP. Unit – V: The Application Layer: 12 Hrs DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video, Content Delivery & Peer-to-Peer. Prescribed Text Book: 1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education. Reference Books: 2. Bhushan Trivedi, Computer Networks , Oxford University Press	Unit – II	I: The Network La	aver:	1	,	, <b>,</b>	12 Hrs
Internet Working, Network Layer in the Internet. Unit – IV: The Transport Layer: The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet Transport Protocols: UDP, The Internet Transport Protocols: TCP. Unit – V: The Application Layer: DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video, Content Delivery & Peer-to-Peer. Prescribed Text Book: 1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education. Reference Books: 2. Bhushan Trivedi, Computer Networks , Oxford University Press 2. James E Kursese, Keith W Been, "Computer Networking", Third Edition, Deemon Education	Network	Layer Design Issue	s. Routi	ng Algorithms, Cong	estion Contro	ol Algorithms, Quality	of Service
Unit – IV: The Transport Layer:       12 Hrs         The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet         Transport Protocols: UDP, The Internet Transport Protocols: TCP.         Unit – V: The Application Layer:       12 Hrs         DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video,         Content Delivery & Peer-to-Peer.         Prescribed Text Book:         1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.         Reference Books:         2. Bhushan Trivedi, Computer Networks , Oxford University Press         2. James E Kurses Keith W Dass "Computer Networks", Third Edition Deargen Education	Internet V	Working, Network I	Laver in	the Internet.	,		
The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet Transport Protocols: UDP, The Internet Transport Protocols: TCP. <b>Unit – V: The Application Layer:</b> DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video, Content Delivery & Peer-to-Peer. <b>Prescribed Text Book:</b> 1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education. <b>Reference Books:</b> 2. Bhushan Trivedi, Computer Networks , Oxford University Press	Unit – IV	7: The Transport I	Laver:				12 Hrs
Transport Protocols: UDP, The Internet Transport Protocols: TCP.          Unit – V: The Application Layer:       12 Hrs         DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video,         Content Delivery & Peer-to-Peer.         Prescribed Text Book:         1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.         Reference Books:         2. Bhushan Trivedi, Computer Networks , Oxford University Press         3. James E Kurses Keith W Deeg, "Commuter Networkine", Third Edition, Deerson Education	The Tra	sport Service. Elen	nents of	Transport Protocols.	Congestion (	Control Algorithms, T	he Internet
Unit – V: The Application Layer:       12 Hrs         DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video,         Content Delivery & Peer-to-Peer.         Prescribed Text Book:         1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.         Reference Books:         2. Bhushan Trivedi, Computer Networks , Oxford University Press         3. James E Kurses, Keith W Page, "Commuter Networkine", Third Edition, Deemon Education	Transpor	t Protocols: UDP. T	The Inter	net Transport Protoco	ols: TCP.		
<ul> <li>DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio &amp; Video, Content Delivery &amp; Peer-to-Peer.</li> <li>Prescribed Text Book: <ol> <li>Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.</li> </ol> </li> <li>Reference Books: <ol> <li>Bhushan Trivedi, Computer Networks , Oxford University Press</li> <li>Imma E Kuraga, Keith W Page, "Computer Networking", Third Edition, Pearson Education</li> </ol> </li> </ul>	Unit – V	: The Application	Laver:	FF			12 Hrs
<ul> <li>Content Delivery &amp; Peer-to-Peer.</li> <li>Prescribed Text Book: <ol> <li>Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.</li> </ol> </li> <li>Reference Books: <ol> <li>Bhushan Trivedi, Computer Networks , Oxford University Press</li> <li>Ismas E Kurasa, Keith W Page, "Computer Networking", Third Edition, Pearson Education</li> </ol> </li> </ul>	DNS – T	he Domain Name S	vstem. F	Electronic Mail. The	World Wide '	Web, Real Time Audi	o & Video.
<ul> <li>Prescribed Text Book:</li> <li>1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.</li> <li>Reference Books:</li> <li>2. Bhushan Trivedi, Computer Networks, Oxford University Press</li> <li>2. Ismag E Kuraga, Keith W Page, "Computer Networking", Third Edition, Pearson Education</li> </ul>	Content I	Delivery & Peer-to-	Peer			,, ee, itear i inte i iaar	o ee (1400,
<ol> <li>Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.</li> <li>Reference Books:</li> <li>Bhushan Trivedi, Computer Networks, Oxford University Press</li> <li>James E Kurses, Keith W Page, "Computer Networking", Third Edition, Pearson Education</li> </ol>	Preso	ribed Text Book:					
<ul> <li>Reference Books:</li> <li>2. Bhushan Trivedi, Computer Networks, Oxford University Press</li> <li>2. James E Kurses, Keith W Pass, "Computer Networkine", Third Edition, Peerson Education</li> </ul>	1 An	drew S Tanenbaun	n "Com	outer Networks" Fif	th Edition Pe	arson Education	
<ol> <li>Bhushan Trivedi, Computer Networks, Oxford University Press</li> <li>James E Kurasa, Kaith W Page, "Commuter Networking", Third Edition, Pageage Education</li> </ol>	Refe	ence Books.	ii, com				
2. James E Kurasa, Kaith W Dass, "Commutar Naturalking", Third Edition, Desman Education	2 Bh	ushan Trivedi Corr	nuter N	etworks Oxford Un	iversity Press		
A TAMES F NUTOSE NEUD W ROSS LOMDULET NEUWORKINO TIDITO FOUDOD PEARSON FOUCADOD	2. Di 3. Iar	nes F Kurose, Keitk	W Ross	s "Computer Netwo	rking" Third	Edition Pearson Edu	cation
4 Behrouz A Forouzan "Data Communications and Networking" Fourth Edition TMH (2007)	4 Re	hrouz A Forouzan	"Data Co	ommunications and l	Networking"	Fourth Edition TMH	(2007)
5 Kurose & Ross "COMPLITER NETWORKS" – A Ton-down approach featuring the Internet"	5 Ku	rose & Ross "CON		NFTWORKS" – A	Top-down a	proach featuring the	Internet"
Pearson Education - Alberto Leon - Garciak	Dears	on Education $-$ Alb	erto Leo	n – Garciak		proden reduining the	internet,
Student Activity.	Student	Activity.					
1 Study the functioning of network devices available in your organization	1 Study	the functioning of n	etwork (	levices available in s	our organizat	ion	

2. Prepare a pictorial chart of LAN connections in your organization

COMPUTER S	CIENCE	CSC-601(EL-B)	2018-'19	B.Sc.(MPCs)
SEMESTER – VI	PAPER	– VII	Max.	Marks 75
<u>odel Paper</u> NO Of Hours:3	COM	IPUTER NETWORK <u>No Of Credits</u> : 3	S	Pass Marks 30
		Section- A		
Answer <u>FIVE</u> Que	estions. Each	Question carries <b>FIV</b>	E Marks.	5*5=25N
1. What is Network	? Write abo	ut Wireless Network?		
2. Describe Time D	vivision Mul	tiplexing?		
3. Write a short not	e on Framin	g?		
4. Write about Man	chester Enco	oding?		
5. Describe Fragm	entation			
6. Write about Stor	e and Forwa	rd Packet Switching?		
7. Write about UDI	<b>D</b> ?			
8. Describe Domain	n Name Syst	em and Domain Name	Space?	
		Section- B		
Answer <u><b>FIVE</b></u> Quest	tions. Each (	Question carries <b>TEN</b> N	Marks	5*10=50M
9. Explain about O	SI Reference	e Model?		
10. Explain about di	fferent types	of Guided Transmissi	on Media?	
11. What is Sliding	Window Pro	tocols? Explain One B	it Sliding Wi	indow Protocol.
12. Explain about Sp	anning Tree	Bridges and Remote I	Bridges?	
13. What is Routing	Algorithm?	Explain about any Thr	ee Routing A	Algorithms
14. Explain about No	etwork layer	s in the Internet		
	to col 9 Winit	a about how to connec	t TCP Establ	ishment

COMPUTER SCIENCE	CSC-602(CL-A)	2018-'19	B.Sc.(MPCs,MCCs)	
SEMESTER – VI	PAPER – VIII	Max. Mar	ks 75	

#### Syllabus

# FOUNDATION OF DATA SCIENCE

[Cluster A]

### **Course Objective:**

Modern scientific, engineering, and business applications are increasingly dependent on data, existing traditional data analysis technologies were not designed for the complexity of the modern world. Data Science has emerged as a new, exciting, and fast-paced discipline that explores novel statistical, algorithmic, and implementation challenges that emerge in processing, storing, and extracting knowledge from Big Data

### **Unit – I: Introduction to Data Science**

Introduction to Data Science: Data science process - roles, stages in data science project - working with data from files - working with relational databases -exploring data - managing data - cleaning and sampling for modelling and validation -introduction to No SQL.

### **Unit – II: Modelling Methods**

Modelling Methods: Choosing and evaluating models - mapping problems to machine learning, evaluating clustering models, validating models – cluster analysis – Kmeansalgorithm, Naïve Bayes Memorization Methods - Linear and logistic regression -unsupervised methods.

### **Unit – III: Introduction to R Language**

*Introduction to R Language*: Reading and getting data into R – ordered and unordered factors – arrays and matrices – lists and data frames – reading data from files – probability distributions – statistical models in R - manipulating objects - data distribution.

#### **Unit – IV: Map Reduce**

Map Reduce: Introduction – distributed file system – algorithms using map reduce, Matrix-Vector Multiplication by Map Reduce - Hadoop - Understanding the Map Reduce architecture - Writing Hadoop Map Reduce Programs - Loading data into HDFS - Executing the Map phase - Shuffling and sorting - Reducing phase execution.

# **Unit – V: Delivering Results**

Delivering Results: Documentation and deployment – producing effective presentations– Introduction to graphical analysis - plot() function - displaying multivariate data - matrix plots - multiple plots in one window - exporting graph - using graphics parameters. Case studies.

# **Reference Books**

1. Nina Zumel, John Mount, "Practical Data Science with R", Manning Publications, 2014. 2. Jure Leskovec, AnandRajaraman, Jeffrey D.Ullman, "Mining of Massive Datasets", Cambridge University Press, 2014.

3. Mark Gardener, "Beginning R - The Statistical Programming Language", John Wiley & Sons. Inc., 2012.

4.W. N. Venables, D. M. Smith and the R Core Team, "An Introduction to R", 2013. 5. Tony Ojeda, Sean Patrick Murphy, Benjamin Bengfort, AbhijitDasgupta, "Practical Data Science Cookbook", Packt Publishing Ltd., 2014.

# **Student Activity:**

1. Collect data from any real time system and create clusters using any clustering algorithm

2. Read the student exam data in R perform statistical analysis on data and print results.

# 12 Hrs

# 12 Hrs

#### 12 Hrs

# 12 Hrs

	(with	Enert nom Academic	- 1 cai 2010- 1)	,
COM	IPUTER SCIENCE	CSC-602(CL-A)	2018-'19	B.Sc.(MPCs,MCCs)
SEMF	CSTER – VI	PAPER – VIII	Max. Marks 7	75
<u>lel Paper</u>	FO	UNDATION OF DAT	<b>CA SCIENCE</b>	[Cluster A]
		Section-A		
Answe	er <u>FIVE</u> Questions. Ea	ach Question carries <b>FI</b>	VE Marks.	5 X 5=2
1.	Write about working	with data from files?		
2.	Describe Transaction	statements in NoSQL.		
3.	Write about Memoria	zation methods.		
4.	Write about Unsuper	vised methods.		
5.	Write about data dist	ributed.		
6.	Describes Haddop			
7.	Write about Shuffling	g and sorting.		
8.	How to Exporting G	caphs.		
Answe	er <u>FIVE</u> Questions. Ea	<u>Section-B</u> ach Question carries <b>TH</b>	EN Marks.	5 X 10=
9.	Write about Data exp	oloring, Data Managing	, Data Cleanin	g
10	. Explain about data s	cience process roles		
11.	. Write about Clusteri	ng models and validati	ng models.	
12.	. Explain about Linea	r and logistic regression	n.	
13.	. Write about types of	arrays along with Mat	rix multiplicatio	on program in R.

- 14. Explain about List and data frames.
- 15. Write a simple Hadoop Map Reduce Program with proper explanation
- 16. What is plot() function ? How can we display multivariate data?

	COMPUTER SC	IENCE	CSC-602 (CL-B)	2018-'19	B.Sc.(MPCs,MCCs)
SEM	ESTER – VI	PAPE	R – VIII	Max. Mar	ks 75
Syllabu	<u>15</u>	BIG D	ATA TECHONOLO	OGY	[Cluster A]

#### **Course Objective**

The Objective of this course is to provide practical foundation level training that enables immediate and effective participation in big data projects. The course provides grounding in basic and advanced methods to big data technology and tools, including MapReduce and Hadoop and its ecosystem

#### **Unit-I: Introduction to Big Data**

Introduction to Big Data: Introduction – distributed file system – Big Data and its importance, Four V's in bigdata, Drivers for Big data, Big data analytics, Big data applications. Algorithms using map reduce, Matrix-Vector Multiplication by Map Reduce.

### **Unit-II: Introduction Hadoop**

Introduction Hadoop : Big Data – Apache Hadoop & Hadoop EcoSystem – Moving Data in and out of Hadoop – Understanding inputs and outputs of MapReduce - Data Serialization.

#### **Unit- III : Hadoop Architecture**

Hadoop Architecture: Hadoop Architecture, Hadoop Storage: HDFS, Common Hadoop Shell commands, Anatomy of File Write and Read., NameNode, Secondary NameNode, and DataNode, Hadoop MapReduce paradigm, Map and Reduce tasks, Job, Task trackers - Cluster Setup - SSH & Hadoop Configuration – HDFS Administering – Monitoring & Maintenance.

# **Unit-IV: Hadoop Ecosystem and Yarn**

Hadoop Ecosystem And Yarn : Hadoop ecosystem components - Schedulers - Fair and Capacity, Hadoop 2.0 New Features- NameNode High Availability, HDFS Federation, MRv2, YARN, Running MRv1 in YARN.

#### **Unit-V: Hive and Hiveql, Hbase**

Hive And Hiveql, Hbase:-Hive Architecture and Installation, Comparison with Traditional Database, HiveQL - Querying Data - Sorting And Aggregating, Map Reduce Scripts, Joins & Subqueries, HBase concepts- Advanced Usage, Schema Design, Advance Indexing - PIG, Zookeeper - how it helps in monitoring a cluster, HBase uses Zookeeper and how to Build Applications with Zookeeper.

#### **Reference Books**

- 1. Boris lublinsky, Kevin t. Smith, Alexey Yakubovich, "Professional Hadoop Solutions", Wiley, ISBN: 9788126551071, 2015.
- 2. Chris Eaton, Dirk deroos et al., "Understanding Big data", McGraw Hill, 2012.
- 3. Tom White, "HADOOP: The definitive Guide", O Reilly 2012.
- 4. Vignesh Prajapati, "Big Data Analytics with R and Haoop", Packet Publishing 2013.
- 5. Tom Plunkett, Brian Macdonald et al, "Oracle Big Data Handbook", Oracle Press, 2014.
- 6. Jy Liebowitz, "Big Data and Business analytics", CRC press, 2013.

#### **Student Activity:**

- 1. Collect real time data and justify how it has become Big Data
- 2. Reduce the dimensionality of a big data using your own map reducer

# 12 Hrs

# 12 Hrs

12 Hrs

# 12 Hrs

COMPUTER S	CIENCE	CSC-602 (CL-B)	2018-'19	B.Sc.(MPCs,M	(CCs)
MESTER – VI	PAPE	R – VIII	Max. Mar	ks 75	
el Paper	BIG I	DATA TECHONOL	OGY	[Cluster A]	
		Section-A			
Answer <u>FIVE</u> Que	estions. Eac	h Question carries FI	<b>VE</b> Marks.		5 X 5=2
1. Explain	about Distr	ibuted file system?			
2. Explain	about Big d	lata applications?			
3. Explain	Data Serial	ization?			
4. Explain	Moving Da	ta in Hadoop?			
5. Write a	short note c	on Task trackers?			
6. Explain	Secondary	Name Node?			
7. Explain	about Hado	oop 2.0 New Features	?		
8. Explain	Joins & Su	b queries?			
Answer <u>FIVE</u> Qu	estions. Eac	Section -B ch Question carries T	<b>EN M</b> arks.		5 X 10=
9. What is	Big data? A	And explain Four V's	in big data?		
10. What i	s Big data a	inalytics?			
11. What i	s Hadoop?	Explain the Inputs an	d Outputs of	map Reduce?	
12. Explai	n Apache H	adoop and Hadoop E	co System?		
13. Explai	n the Hadoo	op architecture?			
14. Explai	n common l	Hadoop Shell Comma	ands?		
15. What i	s Hadoop e	cosystem? Explain at	out compone	ents?	
16 Evolution	n tha Uiva	Architecture and US	Installation?		
	COMPUTER SCI	IENCE	CSC-602(CL-C)	2018-'19	B.Sc.(MPCs,MCCs)
----------------	------------------------	--------	---------------	------------	------------------
SEM	ESTER – VI	PAPEI	R – VIII	Max. Mar	ks 75
<u>Syllabu</u>	<u>IS</u> COMPUTING FO	OR DAT	A ANALYTICS	[Cluster A	]

#### **Course Objectives**

The objective of this course is to teach fundamental concepts and tools needed to understand the emerging role of business analytics in Organizations.

#### Unit – I: Data Analytics Life Cycle

Data Analytics Life Cycle: Introduction to Big data Business Analytics - State of the practice in analytics role of data scientists - Key roles for successful analytic project - Main phases of life cycle -Developing core deliverables for stakeholders.

#### **Unit – II: Statistics Sampling Techniques**

Statistics Sampling Techniques : Data classification, Tabulation, Frequency and Graphic representation -Measures of central value - Arithmetic mean, Geometric mean, Harmonic mean, Mode, Median, Quartiles, Deciles, Percentile - Measures of variation - Range, IQR, Quartile deviation, Mean deviation, standard deviation, coefficient variance, skewness, Moments & Kurtosis.

#### Unit – III : Probability and Hypothesis Testing

Probability and Hypothesis Testing: Random variable, distributions, two dimensional R.V, joint probability function, marginal density function. Random vectors - Some special probability distribution - Binomial, Poison, Geometric, uniform, exponential, normal, gamma and Erlang. Multivariate normal distribution - Sampling distribution - Estimation - point, confidence - Test of significance, 1& 2 tailed test, uses of t-distribution, F-distribution,  $\chi$ 2distribution.

#### **Unit – IV: Predictive Analytics**

Predictive Analytics: Predictive modeling and Analysis - Regression Analysis, Multicollinearity, Correlation analysis, Rank correlation coefficient, Multiple correlation, Least square, Curve fitting and goodness of fit.

#### **Unit – V: Time Series Forecasting and Design of Experiments**

Time Series Forecasting And Design Of Experiments: Forecasting Models for Time series: MA, SES, TS with trend, season - Design of Experiments, one way classification, two way classification, ANOVA, Latin square, Factorial Design.

#### **Reference Books:**

1. Chris Eaton, Dirk Deroos, Tom Deutsch etal., "Understanding Big Data", McGrawHIII,2012.

2. Alberto Cordoba, "Understanding the Predictive Analytics Lifecycle", Wiley, 2014.

3. Eric Siegel, Thomas H. Davenport, "Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie, or Die", Wiley, 2013.

4. James R Evans, "Business Analytics – Methods, Models and Decisions", Pearson 2013. **Student Activity:** 

1. Collect data from any real time system and create clusters using any clustering algorithm

2. Read the student exam data in R perform statistical analysis on data and print results

#### 12 Hrs

# 12 Hrs

12 Hrs

# 12 Hrs

	COMPUTER SC	IENCE	CSC-602 (CL-C)	2018-'19	B.Sc.(MPCs,MCCs)
SEM	ESTER – VI	PAPEI	R – VIII	Max. Mar	ks 75
Model	<u>Paper</u> COMPUTIN	IG FOR I	DATA ANALYTICS	[Cluster A	]

#### Section-A

5 X 10=50M

	COMPUTER SC	IENCE	CSC-603 (CL-A)	2018-'19	B.Sc.(MPCs,MCCs)	
SE	MESTER – VI		PAPER – VIII	Ma	x. Marks 75	
Syllabu	15	DISTR	RIBUTED SYSTEM		[Cluster B]	
Course	Objectives					

1. To expose the fundamentals of distributed computer systems, assuming the availability of facilities for data transmission.

2. To discuss multiple levels of distributed algorithms, distributed file systems, distributed databases, security and protection

#### Unit-I:

Introduction to Distributed Computing Systems, System Models, and Issues in Designing a Distributed Operating System, Examples of distributed systems.

#### Unit-II:

Features of Message Passing System, Synchronization and Buffering, Introduction to RPC and its models, Transparency of RPC, Implementation Mechanism, Stub Generation and RPC Messages, Server Management, Call Semantics, Communication Protocols and Client Server Binding.

#### **Unit-III:**

Introduction, Design and implementation of DSM system, Granularity and Consistency Model, Advantages of DSM, Clock Synchronization, Event Ordering, Mutual exclusion, Deadlock, Election Algorithms.

#### **Unit-IV:**

Task Assignment Approach, Load Balancing Approach, Load Sharing Approach, Process Migration and Threads.

#### Unit-V:

File Models, File Accessing Models, File Sharing Semantics, File Caching Schemes, File Replication, Atomic Transactions, Cryptography, Authentication, Access control and Digital Signatures.

#### **Reference Books**

1.Pradeep. K. Sinha: "Distributed Operating Systems: Concepts and Design", PHI, 2007. 2 .George Coulouris, Jean Dollimore, Tim Kindberg: "Distributed Systems", Concept and Design, 3rd Edition, Pearson Education, 2005.

#### **Student Activity:**

1. Implementation of Distributed Mutual Exclusion Algorithm.

2. Create a Distributed Simulation Environment.

# 12 Hrs

12 Hrs

# 12 Hrs

12 Hrs

	AG & An A	& SG SIDDHARTHA Autonomous college wi (With E	COLLEGE OF ART ith in the jurisdiction Effect from Academic	TS AND SC of Krishna Year 2018	IENCES - VUYYURU. a University A.P, India. -'19)
	CON	<b>IPUTER SCIENCE</b>	CSC-603 (CL-A)	2018-'19	B.Sc.(MPCs,MCCs)
SEM	ESTE	R – VI PAPEI	R – VIII	Max. Mar	ks 75
Model	Paper		DISTRIBUTED SYS	STEM	[Cluster B]
Aodel ]	Paper 1997				
			Section -A		
Ans	swer <u>F</u>	<u>VE</u> Questions. Each Q	uestion carries <b>FIVE</b>	Marks.	5 X 5=25M
	1.	Write short notes on d	istributed system?		
	2.	What is work station	Model?		
	3.	Explain about RPC?			
	4.	Explain Communicat	ion Protocols?		
	5.	Write Advantages of	DSM?		
	6.	Describe Clock Synch	ronization		
	7.	Write a short note on 7	Thread		

# Section -B

Answer <b><u>FIVE</u></b> Questions. Each Question carries <b>TEN</b> Marks.	5 X 10=50M
9. Explain different models in distributed System	
10. Explain issues in distributed operating System	
11. Explain Client Server Binding?	
12. Explain Transparency of RPC in Distributed Systems	
13. Explain Design and implementation of DSM system	
14. Explain about deadlock?	
15. Describe theLoad – Balancing Approach	
16. Explain File Accessing model?	

	COMPUTER SC	IENCE	CSC-603 (CL-B)	2018-'19	B.Sc.(MPCs,MCCs)
SEM	ESTER – VI	PAPE	R – VIII	Max. Mar	ks 75

#### <u>Syllabus</u>

**Course Objectives:** The student will learn about the cloud environment, building software systems and components that scale to millions of users in modern internet, cloud concepts capabilities across the various cloud service models including Iaas, Paas, Saas, and developing cloud based software applications on top of cloud platforms.

#### Unit-I

**Cloud Computing Overview** – Origins of Cloud computing – Cloud components - Essential characteristics – On-demand self-service , Broad network access , Location independent resource pooling , Rapid elasticity , Measured service

#### Unit-II

**Cloud scenarios – Benefits**: scalability, simplicity, vendors, security. Limitations – Sensitive information - Application development – Security concerns - privacy concern with a third party - security level of third party - security benefits Regularity issues: Government policies

#### Unit-III

 $\begin{array}{l} \textbf{Cloud architecture:} \ Cloud \ delivery \ model - SPI \ framework \ , \ SPI \ evolution \ , \ SPI \ vs. \ traditional \ IT \ Model \ Software \ as \ a \ Service \ (SaaS): \ SaaS \ service \ providers - Google \ App \ Engine, \ Salesforce.com \ and \ google \ platfrom - Benefits - Operational \ benefits \ - Evolution \ benefits \ - Evaluating \ SaaS \ Platform \ as \ a \ Service \ (PaaS \ ): \ PaaS \ service \ providers \ - \ Right \ Scale \ - \ Salesforce.com \ - \ Rackspace \ - \ Force.com \ - \ Services \ and \ Benefits \ \end{array}$ 

### Unit-IV

**Infrastructure as a Service (IaaS):** IaaS service providers – Amazon EC2, GoGrid – Microsoft soft implementation and support – Amazon EC service level agreement – Recent developments – **Benefits Cloud deployment model**: Public clouds – Private clouds – Community clouds - Hybrid clouds - Advantages of Cloud computing

#### Unit-V

**Virtualization:** Virtualization and cloud computing - Need of virtualization – cost , administration , fast deployment , reduce infrastructure cost - limitations

Types of hardware virtualization: Full virtualization - partial virtualization - para virtualization Desktop virtualization: Software virtualization - Memory virtualization - Storage virtualization - Data virtualization - Network virtualization Microsoft Implementation: Microsoft Hyper V - Vmware features and infrastructure - Virtual Box - Thin client Reference Books

- 1. Cloud computing a practical approach Anthony T.Velte , Toby J. Velte Robert Elsenpeter TATA McGraw- Hill , New Delhi 2010
- 2. Cloud Computing: Web-Based Applications That Change the Way You Work and Collaborate Online Michael Miller Que 2008

## **CLOUD COMPUTING**

### [Cluster B]

# 12 Hrs

12 Hrs

12 Hrs

#### 12 Hrs

COMPUTER SCIEN	ICE CSC-603 (C	L-B) 2018-'19	B.Sc.(MPCs,MCCs)
MESTER – VI P	APER – VIII	Max. Ma	rks 75
<u>el Paper</u>	CLOUD COM	IPUTING	[Cluster B]
	Section	<u>on -A</u>	
Answer <b><u>FIVE</u></b> Questions	s. Each Question carr	ies <b>FIVE</b> Marks.	5 X 5
1. What are the cor	nponents of Cloud Co	omputing?	
2. Write about Bro	ad-Network Access?		
3. Write about Scal	lability?		
4. Explain Govern	ment Policies?		
5. Explain Google	App Engine		
6. Explain PaaS Se	rvice Providers?		
7. Write about Am	azon EC2?		
8. Write about need	d of Virtualization?		
	<u>Section -B</u>		
Answer <b><u>FIVE</u></b> Question	s. Each Question carr	ries <b>TEN</b> Marks.	5 X 1
9. What is Cloud C	computing? Explain a	bout essential Cha	aracteristics?
10. Explain about M	leasured service in Cl	oud Computing?	
11. Explain Limitati	ons of Cloud Compu	ting	
12. Explain Security	concern and Privacy	concern with thin	rd party
13. Explain SPI Fra	nework		
14. Explain Evaluat	ing SaaS?		
15. Explain Cloud d	eployment model		
I	1 ,		

	COMPUTER SC	ENCE	CSC-603 (	CL-C)	2018-'19	B.Sc.(MPCs,MCCs)
SEMI	ESTER – VI	PAPER	– VIII	Max. N	Aarks 75	

#### <u>Syllabus</u>

### **GRID COMPUTING**

[Cluster B]

#### **Course Objectives:**

The student will learn about the Grid environment, building software systems and components that scale to millions of users in modern internet, Grid concepts capabilities across the various Grid services.

#### **Unit-I: Concepts and Architecture**

*Concepts And Architecture* :Introduction-Parallel and Distributed Computing-Cluster Computing-Grid Computing- Anatomy and Physiology of Grid- Web and Grid Services-Grid Standards - OGSA-WSRF - Trends, Challenges and applications.

#### **Unit- II : Grid Monitoring**

*Grid Monitoring* :Grid Monitoring Architecture (GMA) - An Overview of Grid Monitoring Systems- R-GMA –Grid ICE – MDS- Service Level Agreements (SLAs) -Other Monitoring Systems- Ganglia, Grid Mon, Hawkeye and Network Weather Service.

#### Unit-III: Grid Security and Resource Management

*Grid Security and Resource Management*: Grid Security-A Brief Security Primer-PKI-X509 Certificates-Grid Security-Grid Scheduling and Resource Management, Grid way and Grid bus Broker-principles of Local Schedulers- Overview of Condor, SGE, PBS, LSF -Grid Scheduling with QoS.

#### **Unit-IV Data Management and Grid Portals**

*Data Management And Grid Portals* :Data Management-Categories and Origins of Structured Data-Data Management Challenges-Architectural Approaches-Collective Data Management Services-Federation Services-Grid Portals-Generations of Grid Portals.

#### **Unit-V Grid Middleware**

*Grid Middleware*: List of globally available Middleware's - Case Studies-Recent version of Globus Toolkit and gLite - Architecture, Components and Features. Features of Next generation grid.

#### **Reference Books**

- 1. Ian Foster, Carl Kesselman, The Grid 2: Blueprint for a New Computing Infrastructure, Elsevier Series, 2004.
- 2. Vladimir Silva, Grid Computing for Developers, Charles River Media, January 2006.

3. Parvin Asadzadeh, Rajkumar Buyya, Chun Ling Kei,Deepa Nayar, and Srikumar Venugopal, Global Grids and Software Toolkits: A Study of Four Grid Middleware Technologies, High Performance Computing : Paradigm and Infrastructure, Laurence Yang and Minyi Guo (editor s), Wiley Press, New Jersey, USA, June 2005.

#### **Student Activity:**

- 1. Implement and analyze any one Grid Resource Sharing algorithm.
- 2. List out various security issues with Grid

# 12 Hrs

12 Hrs

12 Hrs

### 12 Hrs

СОМ	PUTER SCIENC	CE CSC-	603 (CL-C)	2018-'19	B.Sc.(MPCs,MCCs)
STER	R – VI PA	PER – VII	[	Max. Mar	ks 75
aper		GRID	COMPUTIN	3	[Cluster B]
		<b>Section</b>	<u>-A</u>		
nswer	FIVE Questions.	Each Quest	ion carries <b>FI</b>	VE Marks.	5 X
1.	Explain Cluster co	omputing?			
2.	Explain Grid servi	ces?			
3.	Write about SLAs	?			
4.	Explain about MD	S?			
5.	Explain Grid secur	rity?			
6.	Write about Grid S	Scheduling v	with QoS?		
7.	Explain the Gener	ations of Gr	id Portals?		
8.	What are the featu	res of Next	Generation G	rid?	
		<b>Section</b>	- <b>B</b>		
nswer	FIVE Questions.	Each Quest	ion carries <b>TE</b>	N Marks.	5 X
9.	What is Grid Com	puting? Exp	blain the Parall	el and Distr	ibuted Computing?
10.	Explain about Grid	d Standards	and Application	ons?	
11.	Explain Grid Mon	itoring Arch	nitecture?		
12.	Explain Ganglia, (	Grid Mon an	d Hawkeye S	ervices?	
13.	Explain Grid sche	duling and F	Resource Mana	agement?	
14.	Explain about Grie	d way and G	Frid Bus Broke	er?	
15.	Explain Categorie	s and Origin	s of structured	l Data Mana	igement?

COMPUTER SCIENCE	CSC PROJ-602P	2018-'19	B.Sc.(MPCs)

#### SEMESTER – VI PROJECT(PHP & MYSQL)Max. Marks 100

#### **OBJECTIVE**

The objective of the Project Course is to help the students to study, analyze and design software or utility for different problems or applications. This will improve the skills of software development of the students.

#### MARKS FOR PROJECT EVALUATION

The project course will be evaluated for **100** Marks, of which **75**marks are meant for the practical evaluation of a project and **25** marks are allotted for attending viva-voce examination. The passing minimum in the project work will be 50% of the total mark. i.e. the student should get minimum 50% marks in the project evaluation and the viva-voce examination. Thus, the minimum mark the student is required to obtain is 50 out of 100 marks.

SEMESTER - VPAPER - VMax. Marks 75SyllabusPROGMAMMING IN C	)	B.Com.(C.A.)	2018-'19	CCSC 505C	SCIENCE	COMPUTER	
Syllabus PROGMAMMING IN C			Marks 75	R – V Max	PAPER	SEMESTER – V	SEM
			G IN C	PROGMAMMING		<u>llabus</u>	<u>Syllabu</u>
NO Of Hours: 5No Of Credits: 3 Pass Marks 30		larks 30	Pass M		Credits: 3	O Of Hours: 5No Of	NO Of

#### Unit- I: Introduction to Algorithms and Programming Languages:

Algorithm – Key features of Algorithms – Some more Algorithms – Flow Charts. Introduction to C: Structure of C Program – Writing the first C Program – File used in C Program – Compiling andExecuting C Programs Using Comments – Keywords – Identifiers – Basic Data Types in C – Variables Constants – I/O Statements in C- Operators in C- Programming Examples – Type Conversion and Type Casting

#### **Unit-II: Decision Control and Looping Statements**

Introduction to Decision Control Statements – Conditional Branching Statements – Iterative Statements – Nested Loops – Break and Continue Statement – Go to Statement

#### **Unit- III: Functions**

Introduction – using functions – Function declaration/ prototype – Function definition – function call – return statement – Passing parameters – Scope of variables – Storage Classes – Recursive function

#### **Unit- IV: Arrays**

Introduction – Declaration of Arrays – Accessing elements of the Array – Storing Values in Array Calculating the length of the Array – Operations on Array – one dimensional array for inter-function communication – Two dimensional Arrays –Operations on Two Dimensional Arrays

Strings: Introduction String and Character functions

#### **Unit-V: Pointers:**

Understanding Computer Memory – Introduction to Pointers – declaring Pointer Variables Passing Arguments to Functions using Pointer.

Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Unions – Enumerated Data Types.

#### **Reference Books:**

1. Reema Thareja, Introduction to C programming, Oxford University Press.

2. E Balagurusamy, Computing Fundamentals & C Programming – Tata McGraw-Hill, 2008. 3. Ashok N Kamthane, Programming with ANSI and Turbo C, Pearson Publisher, 2002. 4. Henry Mulish & Hubert L.Coo Reema Thareja: The Spirit of C: An Introduction to Modern Programming, Jaico Publishing House, 1996.

#### 12 Hrs

12 Hrs

12 Hrs

12 Hrs

COMPUTER SCIENCE		CE CCSC	C 505C	2018-'19	B.Com.(C.A.)		
SEMES	ΓER – V PA	PER – V	Max. N	Marks 75			
Model P	<u>aper</u>	PROGM	IAMMING	IN C			
A	nswer <u>FIVE</u> Questions.	Each Question	Section- A n carries FI	<b>VE</b> Marks.	5*5=25M		
1	Write a short note on	Algorithm?					
2	. Explain data types in	C?					
3	. Explain Jump Stateme	Explain Jump Statements?					
4	. Write a short note on	'if'- statements	?				
5	. Explain Call by Value	and Call by R	eference				
6	Describe recursive fur	nction with an	example?				
7	. Explain one dimensio	nal array with	example?				
8	Write about pointers						
Section- BAnswer FIVE the Questions. Each Question carries TEN Marks5*10=50M9. Explain different types of programming languages?10. Explain about different Categories of Operators in 'C'?11. Explain Decision Making Looping statements with examples?12. Explain different categories of functions?							
<ul><li>13. Explain about Storage Classes?</li><li>14. Write about two dimension arrays? Give an example program?</li><li>15. Explain briefly about String function in 'C'?</li></ul>							
1	6. Difference between S	tructures and U	Jnions?				

	COMPUTER SC	CIENCE	CCSC 505C	2018-'19	B.Com.(C.A.)
SEMI	ESTER – V	PAPER	L – V Max. Marks 75	Pass Marks	30

Guidelines for paper setting 'PROGMAMMING IN C'

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-18)

COMPUTER SCIENCE	CCSC-505P	2018-'19	B.Com.(C.A.)		
SEMESTER – V PAPE	R – I IIMax. Marks	50 Pass	Marks 25		
LABLISTPROGRAMMING IN C					
No. of Hours per week: 2	External: 25	Internal: 25	Credits: 2		

- 1. Find out the given number is perfect number or not using c program.
- 2. Write a C program to check whether the given number is Armstrong or not.
- 3. Write a program to find roots of quadratic equation.

Root  $1 = (-b + \text{sqrt} (b^2 - 4ac) / 2a$  Root  $2 = (-b - \text{sqrt} (b^2 - 4ac) / 2a$ 

- 4. Write a C program to find the sum of individual digits of a positive integer.
- 5. Write a C program to print the Fibonacci series
- 6. Write a C program to generate the first n terms of the Fibonacci sequence.
- 7. Write a program to find factorial of a given number using recursion
- 8. Write a program to perform all arithmetic operations using switch case
- 9. Write a C program to generate all the prime numbers between 1 and n, where n is a Value supplied by the user.
- 10. Write a C program to find both the largest and smallest number in a list of integers.
- 11. Write a C program that uses functions to perform the following:
  - a. Addition of Two Matrices
  - b. Multiplication of Two Matrices
- 12. Write a program to perform various string operations
- 13. Write a program to swap two numbers using pointers.
- 14. Write C program that implements searching of given item in a given list
- 15. Write a C program to sort a given list of integers in ascending order

-	<b>C</b> · · · · ·			- /	
	COMPUTER SCIENCE	CCSC 506C	2018-'19	B.Com.(C.A.)	
SEMESTER – V PAPER – VI Max. Marks 75					
Syllabus DATA BASE MANAGEMENT SYSTEMS			STEMS		
NO Of Hours: 5No Of Credits: 3			Pass N	Iarks 30	

**Course Objective:** Design & develop database for large volumes & varieties of data with optimized

data processing techniques.

#### **Unit – 1: Database Systems Introduction**

Database Systems: Introducing the database and DBMS, Why the database is important,

Historical Roots: Files and File Systems, Problems with File System, Data Management, Database Systems. Data Models: The importance of Data models, Data Model Basic Building Blocks, The evaluation of Data Models.

#### Unit - II: Relational Database & Data Modelling

The Relational Database Model: A logical view of Data, Keys, Integrity Rules, Relational Set Operators, Indexes, Codd's relational database rules. Entity Relationship Model: The ER Model

Advanced Data Modelling: The Extended Entity Relationship Model, Entity clustering.

#### **Unit-III: Normalization and Database Design**

Normalization of database tables: Database Tables and Normalization, The need for Normalization, The Normalization Process, High level Normal Forms, Normalization and database design, de normalization.

#### **Unit-IV: Structured Query Language**

Introduction to SQL: Data Definition Commands, Data Manipulation Commands, Select queries, Advanced Data Definition Commands, Advanced Select queries, Virtual Tables, SQL Join Operators,

#### **Unit-V: Procedural SOL**

Introduction to PL/SQL: Triggers, Stored Procedures, Pl/ SQL Stored Functions **Prescribed Text Book:** 

1. Peter Rob, Carlos Coronel, Database Systems Design, Implementation and Management, Seventh Edition, Thomson (2007).

**R**eference Books:

- 3. Elimasri / Navathe, Fundamentals of Database Systems, Fifth Edition, Pearson Addison Wesley
- 4. Raman A Mata Toledo/Panline K Cushman, Database Management Systems, Schaum's Outlibe series, Tata McGraw Hill (2007).
- 5. C.J.Date, A.Kannan, S.Swamynathan, An Introduction to Database Systems, Eight edition, Pearson Education (2006).
- 6. "DatabaseSystemConcepts" by AbrahamSilberschatz, Henry Korth, and S.Sudarshan, McGrawhill
- 7. Atul Kahate, Introduction to Database Management Systems, Pearson Education (2006).

#### **Student Activity:**

1. Create your college database for placement purpose.

2. Create faculty database of your college with their academic performance scores

# 12Hrs

# 14 Hrs

12 Hrs

- 12 Hrs

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18) 2018-'19 B.Com.(C.A.) **CCSC 506C COMPUTER SCIENCE** SEMESTER – V PAPER – VI Max. Marks 75 **Model Paper** DATA BASE MANAGEMENT SYSTEMS NO Of Hours: 5No Of Credits: 3 Pass Marks 30 Section-A Answer any **<u>FIVE</u>** Questions. Each question carries **FIVE** Marks 4x5 = 25M1. Explain the Components of Database System. 2. Explain Entity Relationship Model. 3. Write about Relational Set Operators. 4. Explain Integrity rules. 5. Describe BCNF. 6. Write about D Normalization. 7. Write about Special Functions. 8. Explain Stored Procedures. **Section-B** 5X10=50M Answer any **FIVE** Questions. Each question carries **TEN** Marks 9. What is File? Explain the problems with File system 10. Explain any three different Data Models 11. Explain E.F.CODDs' rules. 12. Explain Extended Entity Relationship Model. 13. Explain the concept of Normal Forms. 14. Explain different join operators 15. Explain DDL and DML commands. 16. Explain about triggers.

	COMPUTER S	SCIENCE	С	CSC 506C	2018-'19	B.Com.(C.A.)
SEMI	ESTER – V	PAPER	R - VI	Max. Marks 75	5 Pas	s Marks 30

Guidelines for paper setting 'DATA BASE MANAGEMENT SYSTEMS'

#### Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within he jurisdiction of Krishna University A.P., India.

(With Effect from Academic Year **2017-'18**)

	COMPUTER SCIENCE	CCSC-506P	2018-'19	B.Com(CA)	
SEN	AESTER – V	PAPER – IV	7	Max. Marks 50	
Lab	List DATA BASE MANA	GEMENT SYSTEM	IS Pas	s Marks 25	
No.	of Hours per week: 2	External: 25	Internal: 2	c Cr	edits: 2

- 1. Creation of college database and establish relationships between tables
- 2. Explain various data type in Oracle.
- 3. Show the structure of the Emp table.
- 4. Show the structure of the DEPT table.
- 5. Explain the syntax of SELECT statement.
- 6. Create a query to display the name, job, hiredate and employee number from emp table.
- 7. Create a query to display unique jobs from the emp table.
- 8. Create a query to display the empno as EMP#, ename as EMPLOYEE and Hire\_date from emp.
- 9. Create a query to display all the data from the EMP table. Separate each column by a comma and name the column THE\_OUTPUT.
- 10. Create a query to display the name and salary of employees earning more than 2850.
- 11. Create a query to display the name and salary for all employees whose salary is not in the range of 1500 and 2850.
- 12. Display the employee name, job and start date of employees hired between February 20,1981 and May 1, 1981. Order the query in ascending order of start date
- 13. Display the employee name and department number of all the employees in departments 10 and 30 in alphabetical order by name.
- 14. List the name and salary of employees who earn more than 1500 & are in department 10 or 30.
- 15. Display the name, salary and commissions and sort data in descending order of salary and commission.
- 16. Display the name and job title of all employees who do not have a manager.
- 17. Display the name, job and salary for all employees whose job is Clerk or Analyst and their salary is not equal to 1000, 3000 or 5000.
- 18. Display the names of all employees where the third letter of their name is an 'A'.
- 19. Display the names of all employees who have two 'L's in their name and are in department 30 or their manager is 7782.
- 20. Display the name, salary and commission for all employees whose commission amount is grater than their salary increased by 10%.
- 21. Explain all the character functions.
- 22. Explain all the number functions.
- 23. Explain all the Date functions.

Create Student database using the following tables.

STUDENT: Sno : primary key, numberSname : NOT NULL, varchar2 Address: Varchar2 COURSE: Sno : Foreign key.Course Name : varchar2

#### Queries:

- 1. Alter table by adding a column fees in table COURSE.
- 2. Alter table by modifying the address to VARCHAR2(20)

3. Create a view on which the students who joined in one course only.

#### PL/SQL.

- 1. Write A Pl/Sql Program To Swap Two Numbers Without Using Third Variable.
- 2. Write A Pl/Sql Program To Generate Multiplication Tables For Numbers 2,4 And 6
- **3.** Write A Pl/Sql Program To Display Sum Of Even Numbers And Sum Of Odd Numbers In The Given Range.
- 4. Write A Pl/Sql Program To Check The Given Number Is Pollinndrome Or Not.
- 5. Write A Pl/Sql Program To Display Top 10 Rows In Emp Table Based On Their Job And Salary.

#### **Reference Books:**

- 1. Oracle Pl/Sql By Example. Benjamin Rosenzweig, Elena Silvestrova, Pearsoneducation 3rd Edition
- 2. Sql & Pl/Sql For Oracle 10g, Black Book, Dr.P.S. Deshpande

	COMPUTER S	CIENCE	CCSC-507C	2018-'19	B.Com.(CA)
SEM	ESTER – V	PAPE	R – VIII	Max. Mar	ks 75

#### <u>Syllabus</u>

#### WEB TECHNOLOGIES

#### NO Of Hours: 5<u>No of Credits: 3</u>

#### Pass Marks 30

#### Unit -I Introduction to XHTML:

Introduction to HTML, Basic html, Document body text, Hyper links, Adding more formatting Lists, Tables, Images, Multimedia Objects, Frames, Forms and XHTML.

#### Unit- II: CSS:

Cascading Style Sheets: Introduction, Defining your own styles, properties and values in styles, Formatting blocks of information, Layers.

Java Script: java Script, the basics, Variables, String Manipulations, Mathematical functions, Statements, Operators, Arrays, Functions.

#### Unit -III: Objects in Java Script & Dynamic HTML with Java Script

*Objects in Java Script:* Data and objects in java script, Regular expressions, Exception Handling, Built in objects, Events.

*Dynamic HTML with Java Script:* Data validation, Opening a new window, Messages and Confirmations, The status bar, Writing to a different frame, Rollover buttons, Moving images, Multiple pages in a single download, A text-only menu system, Floating logos.

#### Unit -IV: XML Defining Data for Web Applications

*XML:* Introduction to XML, Basic XML, document type definition, XML Schema, Document object model, presenting XML, Using XML parser.

#### Unit -V:JSP:

JSP Lifecycle, Basic Syntax, EL (Expression Language), EL Syntax, Using EL Variables

#### **Prescribed Books:**

#### 1. Chris Bates, Web Programming Building Internet Application, Second Edition, Wiley

2.Head First Servlets and JSP 2<sup>nd</sup> Edition, Bryan Basham, Kathy Sierra

2. Uttam Kumar Roy, Web Technologies from Oxford University Press

	AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.					
	An Autonomous college withinthe jurisdiction of Krishna University A.P, India.					
	(With Effect from Academic Year 2017-'18)					
	COMPUTER SCI	IENCE	CCSC-507C	2018-'19	B.Com(CA)	
SEMI	ESTER – V	PAPE	R – VIII	Max. Mai	•ks 75	
Model	<u>Paper</u>	WE	B TECHNOLOGI	ES		
<u>No of C</u>	redits: 3		Pass Marks	30		
Section-A						
1	Answer <u>FIVE</u> Quest	ions. Eac	ch Question carries	FIVE Marks.	5 X 5=25M	

- 1. Write about structure of HTML Document with an example
- 2. Explain about lists in HTML
- 3. Write about properties used in Style Sheet
- 4. Write about arrays in Java Script
- 5. Describe Data Object
- 6. Write about Rollover buttons
- 7. Describe XML Elements
- 8. Write the syntax of EL and EL variables

#### Section-B

Answer **<u>FIVE</u>** Questions. Each Question carries **TEN** Marks. 5 X 10=50M

- 9. Explain about hyper links? Write about how to link another pages
- 10. What is Form? Explain about forms with examples
- 11. What is CSS? How to design Cascading style sheet
- 12. Explain about Mathematical Functions
- 13. Explain about Regular Expressions
- 14. Write about Data validations in DHTML
- 15. Explain about Document Object Model
- 16. Explain about JSP Lifecycle with neat diagram

	COMPUTER SO	CIENCE	CCSC-507C	2018-'19	B.Com(CA)
SEMI	ESTER – VI	PAPER	R – VIII Max. Mark	s 75	Pass Marks 30

#### Guidelines for paper setting 'WEB TECHNOLOGIES'

#### Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	1	2
Unit-4	2	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

_		(		
	COMPUTER SCIENCE	COM-CSC-605	2018-19	B.Com (C.A)
<u>S</u> ]	EMESTER –VI	PAPER –	IX	Total: 60 Hrs
S	vllabus	TALLY		
<u>C</u>	redits 3	NO Of Hours 5		Pass Marks 30
U	nit-I: Introduction to Tally:			12Hrs

Introduction, Software versions of Tally, Terminology related to Accounts credit & Debit, Journal, Ledger, Voucher, Group etc. Difference between Manual Accounting and Accounting Packages. Features and advantages of Tally.

#### **Unit-II: Introduction of Tally Software**

Introduction of Tally Software Creation of a company, Gateway of Tally, Accounts Information,

Groups, pre defined Groups, Creation of New Groups, Creation of sub Group.

#### **Unit-III: Ledgers**

Ledger Creation Single and multiple Ledgers, Displaying & altering Ledgers, configure Ledger, Stock Ledger, Ledgers and their Group Allocation.

#### **Unit-IV: Vouchers**

Types of vouchers – recording of vouchers – entry of payment voucher, Receipt voucher, sales voucher, purchase voucher, Journal Voucher, Contra Voucher, Debit & Credit Note. Creating New Voucher types, customizing the Existing voucher types, Alternation of Voucher, Deletion of Voucher.

#### **Unit-V: Final Accounts**

Customizing the final accounts – Profit and Loss Account, Balance Sheet. Key board shortcuts in Tally. Generating the Reports from Tally, Trial Balance, Account Books, Sales, Purchase, Journal Registers, Statement of Accounts, Day Book, List of Accounts.

#### **Reference Books:**

- 1. K. Kiran Kumar, Tally ERP9.
- 2. Tally 9 In Simple Steps, Kogent solutions Inc., John Wiley & Sons, 2008.
- 3. Narmata Agarwal, Financial Accounting on Computers Using Tally, Dreamtech Press, 2000.
- 4. Tally 9.0, Google eBook, Computer World.
- 5. Vikas Gupta, Comdex Computer and Financial Accounting with Tally 9.0, 2007.
- 6. Tally ERP 9 Made Simple Basic Financial Accounting, BPB Publisher.
- 7. Avichi Krishnan, Tally ERP 9 for Real Time Accounting, Book Ganga.

#### 12Hrs

### 12Hrs

12Hrs

	AG & SG SIDDHAI	RTHA COLLEGE	OF ARTS AN	D SCIENCES - VUYYUR	U.
	An Autonomous co	llege withinthe juri	sdiction of Kr	ishna University A.P, Indi	a.
		With Effect From	Academic Ye	ar 2017-2018)	
	COMPUTER SCIENCE	COM-CSC-605	2017-18	B.Com (C.A)	
SE	MESTER –VI	PAPER –	IX	Total: 60 Hrs	
Mo	odel Paper TALLY				
Cro	edits 3	NO Of Hours 5		Pass Marks 30	
An	swer <u>FIVE</u> Questions. Each	n Question carries <b>F</b>	IVE Marks.	5x5=25M	
1.	Differentiate between Man	nual Accounting and	Accounting P	ackages?	
2.	What are the features of T	ally?			
3.	How to maintain account	information? Explai	n		
4.	How to create a new group	p in Tally			
5.	Explain how to create a st	ock ledger?			
6.	How to display and alter a	ledger?			

- 7. Explain contra Voucher
- 8. Write a short note on Day Book

#### Section- B

Answer **<u>FIVE</u>** the Questions. Each Question carries **TEN** Marks 5 X 10=50M

- 9. Explain evolution of Tally and what are the features and advantages of Tally
- 10. Explain versions of Tally software
- 11. Explain about Gateway of Tally
- 12. Explain about Group and predefined Groups
- 13. Explain ledger creation
- 14. How to create a single and multiple ledgers
- 15. Explain different types of vouchers?
- 16. Explain how to generate the reports from Tally?

		with Effect From	Academic 10	eal 2017-10)	
	COMPUTER SCIENCE	CCSC-605CE	2018-19	B.Com (C.A)	)
S	EMESTER –VI	PAPER – IX	Max	. Marks 75	Pass Marks 30
	(	<b>Guidelines</b> for paper	setting <u>'TALI</u>	LY'	

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
An Autonomous college within the jurisdiction of Krishna University A.P, India.
(With Effect Energy Academic Very 2017 218)

COMPUTER SCIENCE	COMCSC-605	P 2017-18	B.Com.(C.A.)
SEMESTER – VI	PAPER – V	I	Max. Marks:50
	TALLY		Pass Mark: 25
No. Of Hours per week: 3 Lab list	External: 25	Internal: 25	Credits: 2
1. Architecture and customization of	of Tally		
2. Configuration of Tally			
3. Tally Screens and Menus			
4. Creation of new company and gr	oups.		
5. Preparation of voucher entries.			
a. Payment voucher creation	1		
b. Receipt voucher creation			
c. Sales voucher creation			
d. Purchase voucher creation	n		
e. Contra voucher creation			
f. Journal voucher creation			
6. Ledger Creation.			
7. Preparation of VAT			
8. Preparation of TDS			
7. Preparation of Trail balance			
8. Preparation of Profit and loss sta	tement.		
9. Preparation of Balance Sheet			
10. Preparation of Bank Reconcilia	tion Statement.		
11. Example Exercise			

	(with Effect From Academic Tear 2017-2018)			
COMPUTER SCI	ENCE CO	M-CSC-606	2017-18	B.Com (C.A)
SEMESTER –VI		PAPER – X	Tota	al: 60 Hrs
Syllabus		E-COMME	RCE	
Credits 3	NC	Of Hours 5		Pass Marks 30

#### **Unit-I**: Introduction to E-Commerce

Scope, Definition, e-Commerce and the Trade Cycle, Electronic Markets, Electronic Data Interchange, Internet Commerce. Business Strategy in an Electronic Age: Supply Chains, Porter's Value Chain Model, Inter Organizational Value Chains, Competitive Strategy, First Mover Advantage – Sustainable Competitive Advantage, Competitive Advantage using E-Commerce – Business Strategy.

#### **Unit-II:Business-to-Business Electronic Commerce**

Characteristics of B2B EC, Models of B2B EC, Procurement Management by using the Buyer's Internal Market place, Just in Time Delivery, Other B2B Models, Auctions and Services from traditional to Internet Based EDI, Integration with Back-end Information System, Role of Software Agents for B2B EC, Electronic marketing in B2B, Solutions of B2B EC, Managerial Issues, Electronic Data Interchange (EDI), EDI: Nuts and Bolts EDI and Business.

#### **Unit-III: Internet and Extranet**

Automotive Network Exchange, Largest Extranet, Architecture of the Internet, Intranet and Extranet, Intranet software, Applications of Intranets, intranet Application Case Studies, Considerations in Intranet Deployment, Extranets, Structures of Extranets, Extranet products and services, Applications of Extranets, Business Models of Extranet Applications, Managerial Issues. Electronic Payment Systems: Issues and Challenges .

#### **Unit-IV:Public Policy**:

From Legal Issues to Privacy : Legal Incidents, Ethical and Other public Policy Issues, Protecting Privacy, Protecting Intellectual Property, Free speech, Internet Indecency and Censorship, Taxation and Encryption Policies, Other Legal Issues: Contracts, Gambling and More, Consumer and Seller Protection in EC.

#### **Unit-V:Infrastructure For EC**

Network of Networks, Internet Protocols, Web- Based client/Server, Internet Security, Selling on the Web, Chatting on the Web, Multimedia delivery, Analyzing Web Visits, Managerial Issues, Equipment required for establishing EC Sites – problems in Operation – Future of EC.

#### **Reference Books**

- 1. David Whiteley, "E-Commerce", Tata McGraw Hill, 2000.
- 2. E Business by Parag Kulakarni and Sunitha Jahirabadkar from Oxford University Press.
- 3. E Business by Jonathan Reynolds from Oxford University Press.
- 4. Eframi Turban, Jae Lee, David King, K. Michael Chung, "Electronic Commerce",
- 5. Pearson Education, 2000.

COMPUTER SCIE	CNCE COM-CSC-606	2017-18	B.Com (C.A)
ESTER –VI	PAPER – X	Total: 60 H	rs
<u>Syllabus</u> Crodits 3	E-COMMERCE		Pass Marks 30
<u>Creans 5</u>	NO OI HOUISS		1 ass warks 50
Answer <u>FIVE</u> Questio	Section-A ons. Each Question carries	FIVE Marks.	5*5=25M
1. Explain Electro	onic data interchange?		
2. Write about Va	alue Chain Model		
3. What are the cl	haracteristics of B2B Elec	tronic Commerc	e
4. What is the role	e of software agents for B	2B Electronic Co	ommerce?
5. Write about ap	plications of Intranet?		
6. Explain the stru	ucture of Extranet?		
7. Explain encryp	tion policies?		
8. Write about Int	ternet protocols?		
	Section-B		
Answer <b><u>FIVE</u></b> Questio	ons. Each Question carries	TEN Marks.	5*10=50N
9. What are the ad	dvantages and limitations	of E-commerce?	1
10. Write Busines	s Strategy in an Electronic	c age	
11. Explain Electro	onic Data Interchange(ED	I)	
12. Explain differe	nt Models of B2B Electro	onic Commerce?	
13. Explain the Are	chitecture of Internet?		
14. Explain Busine	ess Models of Extranet Ap	plications?	
15. Explain Ethica	l and Other public Policy	Issues?	

	(**1	II Enect From Aca	utilit I tal 20	17-2010)	
	COMPUTER SCIENCI	E COM-CSC-606	2017-18	B.Com (C.A)	
SI	EMESTER –VI	PAPER – X	Max. Marks	75 Pass Marks 3	)

#### Guidelines for paper setting <u>'E-COMMERCE'</u>

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

		(With Effect From Readenic Fear 2017 10)		
	COMPUTER SCIENCE	CCSC-607CE	2018-19	B.Com (C.A)
<u>S</u>	EMESTER –VI	PAPER –	XI	

#### Syllabus

PHP& MY SQL

#### Credits 5

#### Unit-I: Building blocks of PHP:

Variables, Data Types, Operators and Expressions, Constants. Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output. Working with Functions: Defining Functions, Calling functions, returning the values from UserDefined Functions, Variable Scope, Saving State between Function calls with the Static statement, more about arguments.

#### **Unit-II: Working with Arrays:**

Arrays, Creating Arrays, Some Array-Related Functions. Working with Objects: Creating Objects, Object Instance. Working with Strings, Dates and Time: Formatting Strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.

#### **Unit-III: Working with Forms:**

Creating Forms, Accessing Form – Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads. Working with Cookies and User Sessions: Introducing Cookies, Setting a Cookie with PHP, Session Function Overview, Starting a Session, Working with session variables, passing session Ids in the Query String, Destroying Sessions and Unsetting Variables, Using Sessions in an Environment with Registered Users.

#### **Unit-IV: Working with Files and Directories:**

Including Files with include(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files, Writing or Appending to a File, Working with Directories, Open Pipes to and from Process Using popen (), Running Commands with exec(), Running Commands with system () or passthru (). Working with Images: Understanding the Image-Creation Process, Necessary Modifications to PHP, Drawing a New Image, Getting Fancy with Pie Charts, Modifying Existing Images, Image Creation from User Input.

#### Unit-V:Interacting with MySQL using PHP:

MySQL Versus MySQLi Functions, Connecting to MySQL with PHP, Working with MySQL Data. Creating an Online Address Book: Planning and Creating Database Tables, Creating Menu, Creating Record Addition Mechanism, Viewing Records, Creating the Record Deletion Mechanism, Adding Subentities to a Record.

References:

1. Julie C. Meloni, PHP MySQL and Apache, SAMS Teach Yourself, Pearson Education (2007).

2. Xue Bai Michael Ekedahl, The Web Warrior Guide to Web Programming, Thomson (2006).

COMPUTER SCIENCE	COM-CSC-607	2017-18	<b>B.Com</b> (C.A)
<u>1ESTER –VI</u>	PAPER – 2	XI	Total: 60 Hrs
abus PHP & MYSQL			
<u>aits 5</u>	NO Of Hours 5		Pass Marks 30
Answer <b><u>FIVE</u></b> Questions	<u>Sectio</u> s. Each Question ca	<u>n-A</u> rries FIVE N	Marks. 5*5=25M
1. Explain about dif	fferent data types av	ailable in PH	HP?
2. Define function?	Explain how to cal	l the function	n?
3. Write a short not	e on Creating Objec	ets	
4. Explain about da	te and time function	ns?	
5. Write about Sess	ion Function?		
6. Explain about co	okies?		
7. Explain about Re	eading from files?		
8. Describe how to	create the Record A	dditionMecl	hanism?
	<u>Sectio</u>	<u>n-B</u>	
Answer <b><u>FIVE</u></b> Questions	s. Each Question ca	rries <b>TEN</b> M	Iarks. 5*10=50N
9. Explain different	types of Operators	in PHP?	
10. Explain flow con	ntrol functions in Pl	HP?	
11. What is an Array	? Explain about arr	ay related fu	nctions.
12. Explain different	string functions in	PHP?	
13. Explain about ho	w to create and acc	ess a form in	PHP?
14. Describe the wor	king with session v	ariables?	
15. Explain working	with Directories?		
16. Explain about ho	w to insert and retri	eve the data	in PHP?

	(With Effect From Reducinc Four 2017 2010)					
	COMPUTEZR SCIENCE	COM-CSC-607	2017-18	B.Com (C.A)		
S	EMESTER –VI	PAPER – XI	Max. Marks	75 Pass Marks 30	)	

## Guidelines for paper setting <u>'PHP & MYSQL'</u>

Unit wise weightage of Marks

	Section-A	Section-B	
	(Short answer questions)	(essay questions)	
Unit-1	2	2	
Unit-2	2	2	
Unit-3	2	2	
Unit-4	1	1	
Unit-5	1	1	

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

	(**	With Effect From Academic Tear 2017-2018)			
	COMPUTER SCIENCE	CCSC-607	2017-18	B.Com (C.A)	
SEMESTER –VI		PAPER – VI		Total: 60 Hrs	
	Lab List PHP, MySQL			Pass Marks 25	
	No. of Hours per week: 2	External: 25	In	ternal: 25	Credits: 2

MySQL Lab Cycle

Cycle -1

An Enterprise wishes to maintain the details about his suppliers and other corresponding details. For that he uses the following details.

Suppliers (sid: Integer, sname: string, address: string)

Parts (pid: Integer, pname: string, color: string)

Catalog (sid: integer, pid: integer, cost: real)

The catalog relation lists the prices charged for parts by suppliers.

Write the following queries in SQL:

- 1. Find the pnames of parts for which there is some supplier.
- 2. Find the snames of suppliers who supply every part.
- 3. Find the snames of supplier who supply every red part.
- 4. Find the pnames of parts supplied by London Supplier abd by no one else.
- 5. Find the sid's of suppliers who charge more for some part than the average cost of that part.
- 6. For each part, find the sname of the supplier who charges the most for that part.
- 7. Find the sid's of suppliers who supply only red parts.
- 8. Find the sid's of suppliers who supply a red and a green part.
- 9. Find the sid's of suppliers who supply a red or green part.

10. Find the total amount has to pay for that suppler by part located from London.

Cycle - 2

An organisation wishes to maintain the status about the working hours made by his employees. For that he uses the following tables.

Emp (eid: integer, ename: string, age: integer, salary: real)

Works (eid: integer, did: integer, pct\_time: integer)

Dept (did: integer, budget: real, managerid: integer)

An employee can work in more than one department; the pct\_time field of the works relation shows the percentage of time that a given employee works in a given department.

Resolve the following queries.

1. Print the names and ages of each employee who works in both Hardware and Software departments.

2. For each department with more than 20 full time equivalent employees (i.e., where the parttime and full-time employees add up to at least that many full-time employees), print the did's together with the number of employees that work in that department.

- 3. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she work in.
- 4. Find the managerid's of managers who manage only departments with budgets greater than 1,000,000.
- 5. Find the enames of managers who manage the departments with largest budget.

6. If a manager manages more than one department, he or she controls the sum of all the budgets for those departments. Find the managerid's of managers who control more than 5,000,000.

- 7. Find the managerid's of managers who control the highest amount.
- 8. Find the average manager salary.

#### PHP Lab Cycle

- 1. Write a PHP program to Display "Hello"
- 2. Write a PHP Program to display the today's date.
- 3. Write a PHP Program to read the employee details.
- 4. Write a PHP Program to display the
- 5. Write a PHP program to prepare the student marks list.
- 6. Write a PHP program to generate the multiplication of two matrices.
- 7. Write a PHP Application to perform demonstrate the college website.
- 8. Write a PHP application to add new Rows in a Table.
- 9. Write a PHP application to modify the Rows in a Table.
- 10. Write a PHP application to delete the Rows from a Table.
- 11. Write a PHP application to fetch the Rows in a Table.
- 12. Develop an PHP application to make following Operations
  - i. Registration of Users.
  - ii. Insert the details of the Users.
  - iii. Modify the Details.
  - iv. Transaction Maintenance.
    - a) No of times Logged in
    - b) Time Spent on each login.
    - c) Restrict the user for three trials only.
    - d) Delete the user if he spent more than 100 Hrs of transaction.

# →Discussed and recommended the teaching and evaluation methods for approval of Academic Council. *Teaching methods:*

Besides the conventional methods of teaching, we use modern technology i.e. Using of LMS and LCD projector to display on power board etc. for better understanding of concepts.

#### Evaluation of a student is done by the following procedure:

There are two components in the Valuation and Assessment of a student – Internal Assessment (IA) Semester Examinations (SE). For the Batch of Students Admitted from 2018-19.

#### Internal Assessment (IA)

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical papers 50.
- Each IA written examination is of 1 hour's duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /ppt/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation. For attendance 5 Marks are allotted.
- The semester examination will be of 3 hours with maximum 70 marks.
- There is no passing minimum marks for IA.

#### Semester Examinations (SE)

- A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.
- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration & Foundation course 2 hours irrespective of the number of credits allotted to it.
- If a candidate fails to obtain pass marks even after the due to less mark in the IA examination, the marks of the next examination will be converted to be out of 100.
- Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'.
- The maximum marks for each Paper shall be 100.

# Evaluation of a student is done by the following procedure for All II & III Year B.Sc. (MPCs) &B.Com.(C.A). For the Batch of Students Admitted from 2016-17.

#### **Internal Assessment Examinations:**

- i) Out of maximum 100 marks in each paper, 25 marks shall be allocated for internal assessment.
- Out of these 25 marks, 20 marks are allocated for announced internal tests. Two announced internal tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, remaining 5 marks are allocated on the basis of candidate's percentage of attendance.

#### **Semester-End Examinations:**

i) The maximum marks for Semester-End examinations shall be 75 marks and duration of the examination shall be 3 Hours.

- ii) Semester-End examinations shall be conducted in theory papers and the practical papers are conducted at the end of every Semester for II & III B.Sc. (MPCs) only.
- iii) Odd semester practical end examinations are to be evaluated by Internal Examiners and Even semester practical end examinations are to be evaluated by External Examiners.
- iv) V semester end C practical examination are to be evaluated by Internal Examiners and Even semester Tally Practical examinations are to be evaluated by External Examiner forIII B.Com (Computers) students only.

Question paper guide lines for Practical Examinations at the end of Semesters III &IV Two Practical Programs to be conducted out of 15 programs at the end of Semester III & IV Practical Examination time 3Hrs and Maximum Marks 50 Scheme of valuation Semesters – II & IV B.Sc. (M.P.Cs), B.Com (Computers)

**Total Marks: 25M** 

#### Computer Science Practical's - External (Time: 3 hrs.)

1. Programs Writing (2) :		10 marks,
2. Viva voice :	5 mark	S
3. Execution & Result :	10 mai	rks
Total Marks `:		25
Computer Science Practical's- Internal		Total Marks: 25M
1. Attendance	:	5 marks
2. Record	:	10 marks
3. Day to day observation	:	5marks
4. Problem solving and Executio	n :	5 marks
Total Marks	:	25

- Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council. Discussed and recommended to conduct certificate courses for Computer Science and Non-Computer Science students separately like TALLY ACCOUNTING PACKAGE, ADOBE PHOTOSHOP, DESKTOP PUBLISHING, COMPUTER HARDWARE AND NETWORKING, WEB DESIGNING, OPERATING SYSTEMS, ETC...
- 2. Discussed and empowered the HOD to suggest the panel of the paper setters and examiners to the controller of the examinations.
- 3. Nil.

Chairman

# A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

# VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

# Accredited by NAAC with "A" Grade

# 2019-2020



# **DEPARTMENT OF COMPUTER SCIENCE**

# **MINUTES OF BOARD OF STUDIES**

## **EVEN SEMESTER**

29-10-2019
Minutes of the meeting of Board of Studies in Computer Science for II B.Sc. (MPCs, MCCs), B.Com. (C.A.) and Foundation Course of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10.30 A.M on 29-10-2019 in the Department of Computer Science.

2

Sri T.Naga PrasadaRao Presiding Members Present: 1)..... Chairman Head, Department of Computer Science (T.Naga PrasadaRao) AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165 University. Professor, (Dr. R Kiran Kumar) Nominee Dept of Computer Science, Krishna University, Machilipatnam. 3)..... Head, Department of Computer Science& Engineering, Academic (Dr. Suresh Sundaradasu) Council Dhanekula Institute of Engineering & Technology, Ganguru, JNTU(K), Vijayawada. Nomince 4) .... Professor, Department of Computer Science Academic (Dr. K Bhagvan) Council K.B.N College, Nominee Vijayawada. Industrial .Net Developer, (R. Sowjanva) Excepert Mavensoft Systems Private limited Madaapur, Hyderabad. ...Member Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165. Lecturer in Computer Science, AG & SG Siddhartha Member Degree College of Arts & Science, Vuyyuru-521165 Member Lecturer in Computer Science, AG & SG Siddhartha (A. Sravani) Degree College of Arts & Science, Vuyyuru-521165 Prabhava Lecturer in Computer Science, AG & SG Siddhartha Member Degree College of Arts & Science, Vuyyuru-521165 10) ch Sawmia louishna Member Lecturer in Computer Science, AG & SG Siddhartha (Ch. Sowmya Krishna) Degree College of Arts & Science, Vuyyuru-521165 11) A Presti Member Student in M.Sc. Computer Science, AG& SG Siddhartha (A.Preethi) Degree College of Arts & Science, Vuyyuru-521165 12) 4 Bairro talatitos: Member Student in B.Sc. Computer Science, AG& SG Siddhartha (G. Sai Maha Lakshmi) Degree College of Arts & Science, Vuyyuru-521165

#### Agenda for B.O.S Meeting.

- To recommend syllabi for II semester of I year, IV Semester of II year Degree B.Sc. (MPCs, MCCs.), B.Com (C.A.), & VI Semester of III year Degree B.Sc.(MCCs) Courses under Choice Based Credit System With Effect From Academic Year 2019-20.
- To recommend the Model Question Papers, Lab programs list and Blue print of II semester of I year, IV Semester of II year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), & VI Semester of III year Degree B.Sc.(MCCs) Courses under Choice Based Credit System With Effect From Academic Year 2019-20.
- To recommend the Guidelines to be followed by the question paper setters in Computer Science for II semester of I year, IV Semesters of II year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.) & VI Semester of III year Degree B.Sc.(MCCs) Courses under Choice Based Credit System With Effect From Academic Year 2019-20.
- 4. To recommend any changes in the syllabi for II, IV, VI Semesters of I, II, III year Degree B.Sc.(MPCs, MCCs) and B.Com.(C.A.).
- 5. To recommend the teaching and evaluation methods to be followed under Autonomous status.
- 6. To recommend the certificate courses for all Computer Science and Non-Computer Science students any suggestions regarding seminars, workshops, Guest lecturers to be organized.
- 7. To recommend the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG & SG Siddhartha Degree College of Arts & Science College, Vuyyuru.
- 8. Discuss and recommend to introduce a Certificate course in "Computer Fundamentals & MS Office"
- 9. Any other matter.

#### Resolutions

4

- Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement syllabi for II semester of I year, IV Semester of II year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), & VI Semester of III year Degree B.Sc.(MCCs) Courses under Choice Based Credit System with Effect from Academic Year 2019-20.
- 2) Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement Model Question Papers, Lab Programs List and blue print for II semester of I year, IV Semester of II year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), & VI Semesters of III year Degree B.Sc.(MCCs) Courses under Choice Based Credit System with Effect from Academic Year 2019-20.
- 3) Discussed and recommended the guidelines to be followed by Question Paper Setters in Computer Science for II semester of I year, IV Semester of II year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), & VI Semesters of III year Degree B.Sc.(MCCs) Courses under Choice Based Credit System With Effect From Academic Year 2019-20.
- Discussed and recommended the NO changes appeared as per previous paper in the syllabi ,Question Paper & Lab Cycle for
  - II Semester of I Year B.Sc. (MPCs, MCCs) & B.Com.(CA).
  - IV Semester of II Year B.Sc. (MPCs, MCC's) & B.Com. (CA).
  - VI Semester of III Year B.Sc. (MPCs) & B.Com.(CA).
  - Foundation Course for All Degree Courses under Choice Based Credit System with Effect from Academic Year 2018-19.
- 5) Discussed and recommended the teaching and evaluation methods for approval of Academic Council.
- 6) Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council. Discussed and recommended to conduct certificate courses for Computer Science and Non-Computer Science students separately.
- 7) Discussed and recommended to introduce Certificate Course on "Basic Computer Applications & MS Office" with course code "BCAM102" for I MPC's.
- 8) Discussed and recommended to introduce Certificate Course on "Hardware and Networking" with course code "HANCC12" for II MPC's, MCC's, MPC, B.COM(CA).
- 9) Discussed and recommended to introduce Certificate Course on "AWS" with course code "CCAWS-01" for III MPC's ,MCC's & III B.COM(CA)
- 10) It is resolved to suggest the panel of the paper setters and examiners to the controller of the examinations.

Chairman

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

	COMPUTER SCI	IENCE	CSC	-201C	2019-20	B.Sc. (MPCs,	MCCs.)	
	SEMESTER – II	PAP	ER – II	Max. M	arks 70	Pass Marks 28	Total Hr	s: 60
S	<u>yllabus</u>	PROG	RAMMI	NG IN C	NO. 0	of. Hours: 4	Credi	its: 3

#### **UNIT I**

15Hrs

Introduction to Algorithms and Programming Languages: Algorithm - Key features of Algorithms -Some more Algorithms - Flow Charts - Pseudo code - Programming Languages - Generation of Programming Languages – Structured Programming Language.

Introduction to C: Introduction – Structure of C Program – Writing the first C Program – File used in C Program - Compiling and Executing C Programs - Using Comments - Keywords - Identifiers - Basic Data Types in C – Variables – Constants – I/O Statements in C- Operators in C- Programming Examples – Type Conversion and Type Casting

#### **UNIT II**

Decision Control and Looping Statements: Introduction to Decision Control Statements - Conditional Branching Statements - Iterative Statements - Nested Loops - Break and Continue Statement - Goto Statement **Functions**: Introduction – using functions – Function declaration/ prototype – Function definition – function call – return statement – Passing parameters – Scope of variables –Storage Classes Recursive functions – Type of recursion – Towers of Hanoi – Recursion vs Iteration **UNIT III 10Hrs** 

Arrays: Introduction – Declaration of Arrays – Accessing elements of the Array – Storing Values in Array - Calculating the length of the Array - Operations on Array - one dimensional array for interfunction communication - Two dimensional Arrays - Operations on Two Dimensional Arrays - Two Dimensional Arrays for inter-function communication – Multidimensional Arrays – Sparse Matrices Strings: Introduction – Suppressive Input – String Taxonomy – String Operations – Miscellaneous String and Character functions 10Hrs

#### **UNIT IV**

**Pointers:** Understanding Computer Memory – Introduction to Pointers – declaring Pointer Variables – Pointer Expressions and Pointer Arithmetic – Null Pointers – Generic Pointers - Passing Arguments to Functions using Pointer – Pointer and Arrays – Passing Array to Function – Difference between Array Name and Pointer – Pointers and Strings – Array of pointers – Memory Allocation in C Programs – Memory Usage – Dynamic Memory Allocation – Drawbacks of Pointers

Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Arrays of Structures - Structures and Functions - Self referential Structures - Union - Arrays of Unions Variables – Unions inside Structures – Enumerated Data Types

#### UNIT V

Files: Introduction to Files – Using Files in C – Reading Data from Files – Writing Data from Files – Detecting the End-of-file – Error Handling during File Operations – Accepting Command Line Arguments – Functions for Selecting a Record Randomly - Remove() – Renaming a File – Creating a **Temporary File** 

### **REFERENCE BOOKS**

1. Introduction to C programming by REEMA THAREJA from OXFORD UNIVERSITY PRESS

2. E Balagurusamy: ---COMPUTING FUNDAMENTALS & C PROGRAMMING -- Tata McGraw-Hill, Second Reprint 2008, ISBN 978-0-07-066909-3.

3. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publ, 2002.

4. Henry Mullish & Huubert L.Cooper: The Spirit of C An Introduction to modern Programming, Jaico Pub. House, 1996.

15Hrs

#### **10Hrs**

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2018-'19)

	COMPUTER	SCIENCE	CSC-201C	2019-20	B.Sc.(MP	Cs, MCCs.)	
	SEMESTER – I	I PA	PER – II	Max. M	arks 70	Pass Mark	s 28
S	<u>yllabus</u>	PROGRAM	MMING IN C	NO. Of. H	ours: 4	<b>Credits:</b>	3

#### Section- A Answer <u>FOUR</u> Questions. Each Question carries FOUR Marks. 4\*5=20M

- 1. Write a short note on Flowchart?
- 2. Explain about input and output Statements?
- 3. Explain storage classes?
- 4. Explain one dimensional array with example?
- 5. Explain dynamic memory allocation?
- 6. How to open a file?

#### Section-B

Answer <u>FIVE</u> the Questions. Each Question carries EIGHT Marks	5*10=50M
7. Explain different types of programming languages?	
8. Explain about different Categories of Operators in 'C'?	
9. Explain decision making Looping statements with examples?	
10. Explain different categories of functions?	
11. Write about two dimension arrays? Give an example program?	
12. Explain briefly about string function in 'C'?	
13. Difference between structures and unions?	
14. Explain different file modes?	

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2018-'19)

( ** 10	I LITCE FIOIR ACA	define Teal 20	10-17)
COMPUTER SCIENCE	CSC-201c	2019-'20	B.Sc.(MPC's, MCCS)
SEMESTER – II	PAI	PER – II	Max. Marks 75

#### Guidelines for paper setting 'PROGRAMMING IN C'

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

	COMPUTER SCI	ENCE	CSC-201P	2019-'20	B.Sc.(MPCs, MCCs.)
SEM	ESTER – II PA	PER – II	Ma	x. Marks 50	Pass Marks 25
LABLIST PROGRAMMING IN C					
No. of l	Hours per week: 2	Externa	l: 25	Internal: 25	Credits: 2

- 1. Find out the given number is perfect number or not using c program.
- 2. Write a C program to check whether the given number is Armstrong or not.
- 3. Write a program to find roots of quadratic equation.

Root 1 =  $(-b + \text{sqrt} (b^2 - 4ac) / 2a$  Root 2 =  $(-b - \text{sqrt} (b^2 - 4ac) / 2a$ 

- 4. Write a C program to find the sum of individual digits of a positive integer.
- 5. Write a C program to print the Fibonacci series
- 6. Write a C program to generate the first n terms of the Fibonacci sequence.
- 7. Write a program to find factorial of a given number using recursion
- 8. Write a program to perform all arithmetic operations using switch case
- Write a C program to generate all the prime numbers between 1 and n, where n is a Value supplied by the user.
- 10. Write a C program to find both the largest and smallest number in a list of integers.
- 11. Write a C program that uses functions to perform the following:
  - a. Addition of Two Matrices
  - b. Multiplication of Two Matrices
- 12. Write a program to perform various string operations
- 13. Write a program to swap two numbers using pointers.
- 14. Write C program that implements searching of given item in a given list
- 15. Write a C program to sort a given list of integers in ascending order

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With	Effect from Academi	ic Year 2018-	19)	
COMPUTER SCIENCE	CCSC-203C	2019-20	B.Com.(C.A)	

SEMESTER –II PAPER – II Max. Marks 70 Pass Marks 28 Totals Hrs 60

#### ENTERPRISE RESOURCE PLANNING NO. Of. Hours: 5 Credits: 4 Syllabus:

#### **Unit-I: Introduction**:

Overview of enterprise systems - Evolution - Risks and benefits - Fundamental technology - Issues to be consider in planning design and implementation of cross functional integrated ERP systems.

#### Unit- II: ERP Solutions and Functional Modules:

Overview of ERP software solutions- Small, medium and large enterprise vendor solutions, BPR and best business practices - Business process Management, Functional modules.

#### **Unit-III: ERP Implementation:**

Planning Evaluation and selection of ERP systems -Implementation life cycle - ERP implementation, Methodology and Frame work- Training – Data Migration - People Organization in implementation-Consultants, Vendors and employees.

#### **Unit-IV: Post Implementation:**

Maintenance of ERP- Organizational and Industrial impact; Success and Failure factors of ERP Implementation.

#### Unit-V: Emerging Trends on ERP:

Extended ERP systems and ERP add-ons -CRM, SCM, Business analytics - Future trends in ERP systems-web enabled, Wireless technologies, cloud computing.

#### **References:**

1. Alexis Leon, ERP demystified, second Edition Tata McGraw-Hill, 2008.

2. Sinha P. Magal and Jeffery Word, Essentials of Business Process and Information System, Wiley India. 2012

3. Jagan Nathan Vaman, ERP in Practice, Tata McGraw-Hill, 2008

- 4. Alexis Leon, Enterprise Resource Planning, second edition, Tata McGraw-Hill, 2008.
- 5. Mahadeo Jaiswal and Ganesh Vanapalli, ERP Macmillan India, 2009
- 6. Vinod Kumar Grag and N.K. Venkitakrishnan, ERP- Concepts and Practice, PHI, 2006.
- 7. Summer, ERP, Pearson Education, 2008

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P. India.

## 12Hrs

12Hrs

12Hrs

#### 14Hrs

9

**10Hrs** 

		(With	Effect from Academ	ic Year 2018-'1	9)		
	COMPUTER	<b>SCIENCE</b>	CCSC-203C	2019-'20	B.Com. (C.A)		
SE	MESTER – II	PAPER – II	Max. Mark	s 70	Pass Marks 28		
1	Model Paper Enterprise Resource Planning NO Of Hours: 5 Credits: 4						
			Section- A	<u>\</u>			
Ans	wer <u>FOUR</u> Que	estions. Each Q	uestion carries FIV	E Marks.	4*5=20M		
	1. Explain the C	Overview of ER	P?				
	2. Write a short	note on Small,	Medium Business V	endor solution?			
	3. Explain Data	Migration?					
	4. Explain Meth	nodology and Fr	ame work of ERP In	plementation?			
	5. Explain Orga	nizational impa	ct on maintains of El	RP?			
	6. Explain cloud	d computing?					
			Section- 1	<u>3</u>			
Ans	wer <u>FIVE</u> the Q	Questions. Each	Question carries E	IGHT Marks.	5*10=50M		
,	7. Explain Evol	ution of ERP.					
	8. Advantages a	and disadvantage	es of ERP.				
	9. Explain abou	at functional Mo	odules in ERP				
	10. Explain abou	ıt Implementati	on life Cycle				
	11. Explain peop	le Organisation	in ERP implementat	ion			
	12. Explain succ	ess and failure	factors of ERP Imple	mentation			
	13. Explain about	Consumer Relati	on Ship Management	(CRM) & Supply	Chain Management (SCM)?		
	14. What are futu	are trends in ER	P system?				

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

1	1
Т	т

COMPUTER SCIENCECOM-CSC-2032019-'20B.Com.(C.A)

SEMESTER-II

PAPER – II

Max. Marks 75

Guidelines for paper setting 'ENTERPRISE RESOURCE PLANNING'

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	1	2
Unit-2	1	1
Unit-3	2	2
Unit-4	1	1
Unit -5	1	2

• Each Short answer question carries 5 marks in Section –A

• Each Essay question carries 10 marks in Section –B

• The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
An Autonomous college within the jurisdiction of Krishna University A.P, India.
(With Effect from Academic Year 2018-'19)

#### SEMESTER – II PAPER – I Pass Marks 20 Total Hrs: 30 Max. Marks 50

#### Computer Fundamentals & Office Tools NO. Of Hrs: 2 Credits: 2 **Syllabus**

**ICT-I-201** 

### **Unit-I : Basics of Computers**

Definition of a Computer - Characteristics and Applications of Computers - Block Diagram of a Digital Computer - Classification of Computers based on size and working Central Processing Unit - Input, Output and I/O Devices

2019-'20

### **Unit-II: Memory Devices & Operating Systems**

**COMPUTER SCIENCE** 

Primary, Auxiliary and Cache Memory – Memory Devices – Software, Hardware, Firmware and People ware -Definition and Types of Operating System - Functions of an Operating System - MS-DOS MS-Windows – Desktop, Computer, Documents, Pictures, Music, Videos, Recycle Bin, Task Bar – Control Pane

### **Unit-III: MS-Word**

Features of MS-Word – MS-Word Window Components – Creating, Editing, Formatting and Printing of Documents - Headers and Footers - Insert/Draw Tables, Table Auto format - Page Borders and Shading – Inserting Symbols, Shapes, Word Art, Page Numbers, Equations – Spelling and Grammar – Thesaurus – Mail Merge 6 Hrs

### **Unit-IV: MS-PowerPoint**

Features of PowerPoint - Creating a Blank Presentation - Creating a Presentation using a Template -Inserting and Deleting Slides in a Presentation – Adding Clip Art/Pictures - Inserting Other Objects, Audio, Video - Resizing and Scaling of an Object – Slide Transition – Custom Animation

### **Unit-V : MS-Excel**

Overview of Excel features – Creating a new worksheet, Selecting cells, Entering and editing Text, Numbers, Formulae, Referencing cells – Inserting Rows/Columns – Changing column widths and row heights, auto format, changing font sizes, colors, shading and attributes - Data Sorting and Filters -Functions – Functions requiring Addins, Functions by category Creating different types of Charts

### **Reference Books :**

1. Fundamentals of Computers by V.Raja Raman, Publishers : PHI

2. Fundamentals of Computers by Reema Thareja, Publishers : Oxford University Press, India

3. Microsoft Office 2010 Bible by John Walkenbach, Herb Tyson, Michael R.Groh and Faithe Wempen, Publishers : Wiley

#### 6 Hrs

### 6 Hrs

#### 6 Hrs

**6Hrs** 

B.A, B.Com, B.Sc.

	COMPUTER SCIENCE	ICT-I-201C	2019-'20	B.A, B.Com, B.Sc.		
SEM	ESTER – II	PAPER – I Ma	ax. Marks 50	Pass Marks 20		
Mode	l paper Computer Fund	amentals & Office	Tools NO. O	f Hrs: 2 Credits: 2		
Answ	Answer <u>FOUR</u> of the following questions 4x5=20M					
1.	Explain characteristics of Co	mputer?				
2.	Explain any five Input device	es?				
3.	Write about Desktop, Compu	iter, Documents, Re	cycle Bin?			
4.	Explain about Cache Memor	y?				
5.	Explain inserting Headers an	d Footers in MS-Wo	ord?			
6.	How to Insert/Draw table in I	MS-Word?				
7.	Inserting and Deleting slides	in presentation?				
8.	Explain inserting charts in M	S-Excel?				

#### **SECTION-B**

#### Answer **THREE** of the following questions

- 9. Explain Block diagram of a Digital Computer?
- 10. Explain Classification of Computers?
- 11. Explain Computer Memory?
- 12. Explain MS-Word Window Components with neat Diagram?
- 13. Creating power point presentation using Template?
- 14. Explain Excel Functions

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2018-'19) 13

3X10=30M

COMPUTER SCIENCE	ICT-I-201	2019-'20	B.A, B.Com., B.Sc.
SEMESTER – II	PAI	PER – I	Max. Marks 50

Guidelines for paper setting 'COMPUTER FUNDAMENTALS & OFFICE TOOLS '

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	1
Unit-3	2	1
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

COMPUT	ER SCIENCE	CSC-401C	2019-'20	B.Sc.(MPCs., MCCs.)
SEMESTER – IV	PAPER – IV	Max. Mark	s 75 Pass Ma	arks 30 Total Hrs 60
Svllabus	DATA STRU	CTURES NO	Of Hours: 4	Credits: 4

## UNIT I

<u>Syllabus</u>

15 Hrs

Concept of Abstract Data Types (ADTs)- Data Types, Data Structures, Storage Structures, and File Structures, Primitive and Non-primitive Data Structures, Linear and Non-linear Structures. Linear Lists - ADT, Array and Linked representations, Pointers.

Arrays - ADT, Mappings, Representations, Sparse Matrices, Sets - ADT, Operations Linked Lists: Single Linked List, Double Linked List, Circular Linked List, applications **UNIT II** 10 Hrs

Stacks: Definition, ADT, Array and Linked representations, Implementations and Applications Queues: Definition, ADT, Array and Linked representations, Circular Queues, De-queues, Priority **Oueues**, Implementations and Applications.

#### UNIT III

**Trees:** Binary Tree, Definition, Properties, ADT, Array and Linked representations, Implementations and Applications. Binary Search Trees (BST) - Definition, ADT, Operations and Implementations, BST Applications. Threaded Binary Trees, Heap trees

#### **UNIT IV**

Graphs – Graph and its Representation, Graph Traversals, Connected Components, Basic Searching Techniques, Minimal Spanning Trees

#### UNIT- V

Sorting and Searching: Selection, Insertion, Bubble, Merge, Quick, Heap sort, Sequential And Binary Searching.

### **TEXT BOOKS**

1. Hubbard John R. and Hurray Anita, Data Structures with Java Paperback Prentice-Hall 2005 ISBN-10: 8120327454

2. Samanta D, Classic Data Structures, Prentice-Hall of India, 2001.

3. David Cousins, Introducing Data Structures with Java Kindle Edition, Pearson Education; First edition, 2011, ISBN-10: 8131758648, 464 pages

#### **REFERENCE BOOKS**

- 1. Sahani S, Data Structures, Algorithms and Applications in C++, McGraw-Hill, 2002
- 2. D S Malik, Data Structures Using C++, Thomson, India Edition 2006
- 3. Tremblay P, and Sorenson P G, Introduction to Data Structures with Applications, Tata McGraw-Hill,

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

#### 10 Hrs

10Hrs

15 Hrs

15

	COMPUTER SCIENCE	CSC-401C	2019-'20	B.Sc.(MPCs., MCCs.)
	SEMESTER – IV PAPE	R – IV Max. Ma	arks 75 Pas	ss Marks 30 Total Hrs 60
Mod	<u>el Paper</u> DATA STI	RUCTURES NO	Of Hours: 4	Credits: 3
		Section- A		
	Answer <u>FIVE</u> Questions. Ea	ach Question carri	es FIVE Mar	ks. 5*5=25M
1.	Explain about Primitive & No	on primitive Data S	tructures?	
2.	Explain about Single Linked	List?		
3.	Write about Applications of S	stack?		
4.	Explain about D-Queue?			
5.	Write a Short note on Binary	tree?		
6.	Explain ADT?			
7.	What is Graph? How to repre-	esent the Graph		
8.	Write a program to sort the el	ements in bubble so	ort?	

### Section- B

Answer <u>FIVE</u> the Questions. Each Question carries TEN Marks 5\*10=50M

- 9. Explain Linked represents with array? With an Example?
- 10. Explain Sparse Matrices?
- 11. Explain stack operations?
- 12. What is a Queue? Explain Queue implementation?
- 13. Explain Tree traversing methods?
- 14. Explain Binary search tree?
- 15. Explain about BFS and DFS?
- 16. Explain about sequential and binary searching?

Γ	COMPUTER SCIENCE	CSC-401C	2019-'20	$\mathbf{B} \mathbf{S}_{\mathbf{C}} (\mathbf{MPC}_{\mathbf{S}} \mid \mathbf{MCC}_{\mathbf{S}})$
	colui e i Ek SeiEi (eE	ebe lore	2017 20	<b>B.SC.</b> (MIPCS., MCCS.)
			<b>X</b> 7	

#### SEMESTER – IV

PAPER – IV

Max. Marks 75

#### Guidelines for paper setting **<u>'DATA STRUCTURES'</u>**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

17

	COMPUTER SCIE	NCE	CSC	-401P	2019-'	20	B.Sc.(MPC	Cs., MCCs.)
	SEMESTER – IV	PAPI	$\mathbf{E}\mathbf{R} - \mathbf{I}\mathbf{V}$	Max. M	arks 50	Pass	s Marks 25	TotalHrss:30
LAB L	IST		DATA S	STRUCT	U <b>RES</b>			
No. of 2	Hours per week: 2	Exter	mal: 25	Ι	nternal:	25	Credi	ts: 2

- 1. Write a Program to implement the Linked List operations
- 2. Write a Program to implement the Stack operations using an array.
- 3. Write Programs to implement the Queue operations using an array.
- 4. Write Programs to implement the Stack operations using a singly linked list.
- 5. Write Programs to implement the Queue operations using a singly linked list.
- 6. Write a program to search an item in a given list using Linear Search and Binary Search
- 7. Write a program for Quick Sort
- 8. Write a program for Merge Sort
- 9. Write a program for insertion sort
- 10. Write a program for Bubble Sort.
- 11. Write a program for selection Sort.
- 12. Write a program for Graph traversals

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

COMPUT	ER SCIENCE	CCSC-403C	2019-'20	B.Com.(	(C.A)	
SEMESTER -IV	PAPER – IV	Max. Marks 7	5 Pass Ma	arks 30	Total Hrs 60	
<u>Syllabus:</u>	Business	Analytics	NO. Of.	Hours: 5	Credits: 4	
Unit-I						1
Introduction - Busine	ess Analytics Life	e Cvcle - Business A	Analytics Proc	ess - Data	concepts - Dat	a

Unit-II:

Automated Data Analysis: Tabulation and Cross Tabulation of Data: Univariate, Bivariate and Multivariate Data Analysis – ANOVA.

exploration & visualization - Business Analytics as Solution for Business Challenges.

#### Unit-III:

Hypothesis Testing: Type 1 & 2 errors - T-test, ANOVA, Chi-Square and correlation- Linear Regression Analysis - Logistic Regression - Cluster Analysis - Market Basket Analysis.

#### Unit-IV:

Business Data Management: Master Data Management: Data Warehousing and kinds of Architecture -Data Extraction – Transformation and Up-loading of Data – Data Mining – Meta Data – Data Marts – Creating Data Marts – Data Integration – OLTP and OLAP.

#### Unit-V:

SPSS Packages – Applications and Case Studies.

#### **Suggested Books:**

- 1. Gupta S.P. "Statistical Methods", Sultan Chand, New Delhi, 2010.
- 2. K.V. Rao, "Research Methodology in Commerce and Management", Sterling Publishers, New Delhi, 2012.
- 3. T.S. Wilkinson & P.L. Bhandarkar, "Methodology and Techniques of Social Research", 2010.
- 4. Richard A.Johnson & Dean W.Wichern, "Applied Multivariate Statistical Analysis", Prentice Hall International Inc., 2007.
- 5. R.N Prasad and Seema Acharya, "Fundaments of Business Analytics", Wiley India
- 6. Pang-Ning Tan, Michael Steinbach & Vipin Kumar, "Introduction to Data Mining", Pearson, 2009.
- 7. Alex Berson, Stephen Smith & Kurt Thearling, "Building Data Mining Application forCRM", Tata McGraw Hill, New Delhi,2000.

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P. India. (With Effect from Academic Year 2018-'19)

#### 19

### 10Hrs

#### 12Hrs

14Hrs

12Hrs

	COMPUTE	R SCIENCE	CCSC-403C	2019-'20	B.Com. (C	.A)
SEN	MESTER – IV	PAPER – I	Max. Marks 7	5 Pass Mark	ks 30 Total	Hrs: 60
N	<u>Iodel Paper</u>	<b>Business</b> Ana	lytics	NO Of Ho	ours: 5	Credits: 4
			Section- A	<u> </u>		
Ansv	wer <u>FIVE</u> Ques	stions. Each Qu	estion carries FIVE	Marks.		5*5=25M
1	. What is the r	ole of Business	Analyst?			
2	2. Write a short	note on Pivot ta	able?			
3	B. Explain meth	ods of Tabulati	on?			
4	4. Write a short	note on ANOV	A?			
5	5. What is T-Te	est?				
e	5. Explain Scatt	ter diagram met	hod?			
7	7. Describe Dat	a Warehouse?				
8	3. Write a short	note on SPSS?				
			<u>Section- B</u>	<u>l</u>		
Ans	wer FIVF the (	Juestions Fach	Question carries T	FN Marks	5*	10-50M
ç	9. Explain Busi	ness Analytics l	ife cycle?		5	10-20101
1	0. Define Data?	Explain about	different types of data	a?		
1	1. Explain diffe	erent types of Ta	abulation?			
1	12. What is Hyp	othesis Testing	? Explain One Tailed	and Two Taile	ed test?	
1	13. What is Regr	ression? Explain	Logistic Regression	?		
1	14. Explain abou	ut Data Marts?				
1	15. Explain Diffe	erent types of O	LAP Architecture?			
1						

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

С	1
2	т

(With Effect from Academic	e Year 2018-'19)
----------------------------	------------------

COMPUTER SCIENCECCSC-4032019-'20B.Com.(C.A.)	
--	--

SEMESTER - IV

PAPER – III

Max. Marks 75

Guidelines for paper setting 'BUSINESS ANALYTICS'

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	1
Unit-3	2	2
Unit-4	1	2
Unit -5	1	1

• Each Short answer question carries 5 marks in Section –A

• Each Essay question carries 10 marks in Section –B

• The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

Γ	COMPUTER SCIENCE	CSC-601(GE)	2019-'20	B.Sc.(MPCs)
SEME	STER – VI	PAPER – VII		Max. Marks 75
Syllabu	<u>IS</u>	WEB TECHNOLO	GIES	
NO Of	Hours: 4	No of Credits: .	<u>3</u>	Pass Marks 3
a (				

#### **Course Objectives:**

- 1. To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services.
- 2. To provide skills to design interactive and dynamic web sites.

#### **Unit -I** Introduction to XHTML:

Introduction to HTML, Basic html, Document body text, Hyper links, Adding more formatting Lists, Tables, Images, Multimedia Objects, Frames, Forms and XHTML.

#### Unit- II: CSS:

Cascading Style Sheets: Introduction, Defining your own styles, properties and values in styles, Formatting blocks of information, Layers.

Java Script: java Script, the basics, Variables, String Manipulations, Mathematical functions, Statements, Operators, Arrays, Functions.

#### Unit -III: Objects in Java Script & Dynamic HTML with Java Script

Objects in Java Script: Data and objects in java script, Regular expressions, Exception Handling, Built in objects, Events.

Dynamic HTML with Java Script: Data validation, Opening a new window, Messages and Confirmations, The status bar, Writing to a different frame, Rollover buttons, Moving images, Multiple pages in a single download, A text-only menu system, Floating logos.

#### **Unit – IV: XML Defining Data for Web Applications**

XML: Introduction to XML, Basic XML, document type definition, XML Schema, Document object model, presenting XML, Using XML parser.

UNIT-V: JSP: JSP Lifecycle, Basic Syntax, EL (Expression Language), EL Syntax, Using EL Variables

#### **Prescribed Books:**

- 1. Chris Bates, Web Programming Building Internet Application, Second Edition, Wiley (2007)
- 2. Head First Servlets and JSP 2<sup>nd</sup> Edition, Bryan Basham, Kathy Sierra
- 3. Uttam Kumar Roy, Web Technologies from Oxford University Press

#### **Student Activities:**

- 1. Prepare a web site for your college
- 2. Prepare your personal website

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P. India.

(With Effect from Academic Year 2018-'19)

COMPUTER SCIENCE	CSC-601(GE)	2019-'20	<b>B.Sc.(MPCs)</b>
------------------	-------------	----------	--------------------

### 12 Hrs

12 Hrs

## **12 Hrs**

22

12 Hrs

#### SEMESTER - VI

Model Paper No Of Hours: 4

## PAPER – VII WEB TECHNOLOGIES <u>No of Credits: 3</u>

Pass Marks 30

#### Section -A

Answer FIVE Questions. Each Question carries FIVE Marks. 5 X 5=25M

- 1. Write about structure of HTML Document with an example
- 2. Explain about lists in HTML
- 3. Write about properties used in Style Sheet
- 4. Write about arrays in Java Script
- 5. Describe Data Object
- 6. Write about Rollover buttons
- 7. Describe XML Elements
- 8. Write the syntax of EL and EL variables

#### Section-B

Answer **<u>FIVE</u>** the Questions. Each Question carries **TEN** Marks

5 X 10=50M

- 9. Explain about hyper links? Write about how to link another pages
- 10. What is Form? Explain about forms with examples
- 11. What is CSS? How to design Cascading style sheet
- 12. Explain about Mathematical Functions
- 13. Explain about Regular Expressions
- 14. Write about Data validations in DHTML
- 15. Explain about Document Object Model
- 16. Explain about JSP Lifecycle with neat diagram

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

COMPUTER SCIENCE	CSC-601(GE)	2019-'20	B.Sc.(MPCs)
------------------	-------------	----------	-------------

SEMESTER – VI PAPER – VII	Max. Marks 75	Pass Marks 30
---------------------------	---------------	---------------

## Guidelines for paper setting 'WEB TECHNOLOGIES'

#### Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-2018)

COMPUTER SCIENCE	CSC-601(GE)	2019-'20	B.Sc.(MPCS)
SEMESTER – VI	PAPER	– VI	Max. Marks 50

24

# Lab ListWEB TECHNOLOGIESPass Marks25No. of Hours per week: 2External: 25Internal: 25Credits: 2

- 1. Write an HTML program to demonstrate text formatting, working with images and hyper links
- 2. Write an HTML program to create Student Marks sheet preparation.
- 3. Write an HTML program to explain String manipulation-using functions.
- 4. Write an HTML program to explain <form> events
- 5. Write an HTML program to perform all arithmetic operations using java script.
- 6. Develop a HTML Form, which accepts any Mathematical expression. Write JavaScript code to Evaluates the expression and Displays the result.
- 7. Create a form for Student information. Write JavaScript code to find Total, Average, Result and Grade.
- 8. Create a form for Employee information. Write JavaScript code to find DA, HRA, PF, TAX, Gross pay, Deduction and Net pay.
- 9. Create a form consists of a Multiple choice questions that validates the answer dynamically and displaying result using java script.
- 10. Write a java script to work with following
- a. Date display b. Calendar c. Copy Selected Text

b. IP Address

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

Γ	COMPUTER SCIENCE	CSC-602CE	2019-'20	B.Sc.(MPCs)
SEMESTER – VI		PAPER – VIII		Max. Marks 75

Model Paper NO Of Hours:3

#### PHP, MySql & Word Press No Of Credits: 3

Pass Marks 30

#### Section-A

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. **5\*5=25M** 

- 1 .Define variable and list the standard data types in PHP.
- 2. What is Break and Continue statements in PHP.
- 3. Define Function and write a program for Function?
- 4. Write programs to pass an argument to function by Value and Reference in PHP.
- 5. Explain how to create a simple form in PHP.
- 6. What is Cookie and explain how to accessing cookie in PHP.
- 7. Describe Update Command in MySQL with Example.
- 8. Write a short notes on Word Press.

#### Section-B

Answer **<u>FIVE</u>** Questions. Each Question carries **TEN** Marks **5\*10=50M** 

9. Explain about Operators and Expressions available in PHP with examples.

10. Explain about Loops and switching statements in PHP with examples.

- 11. Explain about Arrays and related functions to arrays in PHP with examples.
- 12. Explain the following Strings functions with examples

a. strlen() b. strstr() c. strpos() d. substr() e. strtok()

- 13. Explain how to send Mail on form submission in PHP.
- 14. Explain how to work with Sessions in PHP.
- 15. Explain how to insert & retrieve data with MySql in PHP.
- 16. Explain how to work with Themes and also featured images in Word Press.

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

	COMPUTER SCI	ENCE	CSC-602CE	2019-'20	B.Sc.(MPCs)
SEME	ESTER – VI	PAPE	R – VIII	Max. Marks	75 Pass Marks 30

#### Guidelines for paper setting 'PHP, MySql & Word Press'

#### Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B
TT 1 1	(Short answer questions)	(Essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section -A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2017-2018)

	COMPUTE	ER SCIENCE	CSC-602CE	2019-'20	B.Sc.(MPCS)	
SEMESTER – VI		PAPER – VIII		Max. Marks 50		
Lab ListPHP, MySQL & Word Press Lab				Pass Mar	rks 25	

No. of Hours per week: 3

External: 25

#### Internal: 25

Credits: 2

MySQL Lab Cycle

Cycle -1

An Enterprise wishes to maintain the details about his suppliers and other corresponding details. For that he uses the following details.

Suppliers (sid: Integer, sname: string, address: string)

Parts (pid: Integer, pname: string, color: string)

Catalog (sid: integer, pid: integer, cost: real)

The catalog relation lists the prices charged for parts by suppliers.

Write the following queries in SQL:

- 1. Find the pnames of parts for which there is some supplier.
- 2. Find the snames of suppliers who supply every part.
- 3. Find the snames of supplier who supply every red part.
- 4. Find the pnames of parts supplied by London Supplier abd by no one else.
- 5. Find the sid's of suppliers who charge more for some part than the average cost of that part.
- 6. For each part, find the sname of the supplier who charges the most for that part.
- 7. Find the sid's of suppliers who supply only red parts.
- 8. Find the sid's of suppliers who supply a red and a green part.
- 9. Find the sid's of suppliers who supply a red or green part.

10. Find the total amount has to pay for that suppler by part located from London.

Cycle – 2

An organisation wishes to maintain the status about the working hours made by his employees. For that he uses the following tables.

Emp (eid: integer, ename: string, age: integer, salary: real)

Works (eid: integer, did: integer, pct\_time: integer)

Dept (did: integer, budget: real, managerid: integer)

An employee can work in more than one department; the pct\_time field of the works relation shows the percentage of time that a given employee works in a given department.

Resolve the following queries.

1. Print the names and ages of each employee who works in both Hardware and Software departments.

2. For each department with more than 20 full time equivalent employees (i.e., where the parttime and full-time employees add up to at least that many full-time employees), print the did's together with the number of employees that work in that department.

- 3. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she work in.
- 4. Find the managerid's of managers who manage only departments with budgets greater than 1,000,000.
- 5. Find the enames of managers who manage the departments with largest budget.
- 6. If a manager manages more than one department, he or she controls the sum of

all the budgets for those departments. Find the managerid's of managers who control more than 5,000,000.

- 7. Find the managerid's of managers who control the highest amount.
- 8. Find the average manager salary.

#### PHP Lab Cycle

- 1. Write a PHP program to Display "Hello"
- 2. Write a PHP Program to display the today's date.
- 3. Write a PHP Program to read the employee details.
- 4. Write a PHP Program to display the
- 5. Write a PHP program to prepare the student marks list.
- 6. Write a PHP program to generate the multiplication of two matrices.
- 7. Write a PHP Application to perform demonstrate the college website.
- 8. Write a PHP application to add new Rows in a Table.
- 9. Write a PHP application to modify the Rows in a Table.
- 10. Write a PHP application to delete the Rows from a Table.
- 11. Write a PHP application to fetch the Rows in a Table.
- 12. Develop an PHP application to make following Operations
  - i. Registration of Users.
  - ii. Insert the details of the Users.
  - iii. Modify the Details.
  - iv. Transaction Maintenance.
    - a) No of times Logged in
    - b) Time Spent on each login.
    - c) Restrict the user for three trials only.
    - d) Delete the user if he spent more than 100 Hrs of transaction.

#### Wordpress Lab

- 1. Installation and configuration of word press.
- 2. Create a site and add a theme to it.

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-2018)

	COMPUTER SCIENCE	CSC-603CE	2019-'20	<b>B.Sc.(MPCs)</b>	
SEME	STER – VI	PAPER – VIII		Max. Marks 7	15
Syllabus	Advanced java S	cript: JQUERY/AJ	AX/JSON/A	NGULAR JS	

#### NO Of Hours:4

Course Objective: To impart knowledge in designing a webpage in a structured way by using advanced java script ie., using different scripting languages

#### **UNIT-1: JQuery – Basics:**

String, Numbers, Boolean, Objects, Arrays, Functions, Arguments, Scope, Built-in Functions. jQuerySelectors: CSS Element Selector, CSS Element ID Selector, CSS Element Class Selector, CSS Universal Selector, Multiple Elements E, F, G Selector, Callback Functions. jQuery – DOM Attributes: Get Attribute Value, Set Attribute Value. jQuery – DOM Traversing : Find Elements by index, Filtering out Elements, Locating Descendent Elements, JQuery DOM Traversing Methods. 10 Hrs

#### Unit – II: jQuery – CSS Methods :

Apply CSS Properties, Apply Multiple CSS Properties, Setting Element Width & Height, JOuery CSS Methods. jQuery - DOM Manipulation Methods: Content Manipulation, DOM Element Replacement, Removing DOM Elements, Inserting DOM elements, DOM Manipulation Methods. jQuery – Events Handling: Binding event handlers, Removing event handlers, Event Types, The Event Object, The Event Attributes. jQuery – Effects: JQuery Effect Methods, jQuery Hide and Show, jQuery Toggle, jQuery Slide - slideDown, slideUp, slideToggle, jQuery Fade - fadeIn, fadeOut, fadeTo, jQuery **Custom Animations** 15 Hrs

#### Unit – III: Intro to jQuery UI

, Need of jQuery UI in real web sites, Downloading jQuery UI, Importing jQuery UI, Draggable, Droppable, Resizable, Selectable, Sortable, Accordion, Auto Complete, Button Setw, Date Picker, Dialog, Menu, Progress Bar, Slider, Spinner, Tabs, Tooltip, Color Animation, Easing Effects, addClass, removeClass, Effects, jQuery UI themes, Customizing jQuery UI widgets / plug-ins, jQuery UI with CDN, Consuming jQuery Plug-ins from 3rd party web sites jQuery Validations, Intro to jQuery validation plug-in, Using jQuery validation plug-in, Regular expressions.

#### **Unit – IV: Intro to AJAX**

Need of AJAX in real web sites, Getting database data using jQueryAJAX, Inserting, Updating, Deleting database data using jOuery-AJAX Grid Development using jOuery-AJAX Intro to JSON JSON syntax, Need of JSON in real web sites, JSON object, JSON array, Complex JSON objects, Reading JSON objects using jQuery.

#### Unit – V: Intro to AngularJS

Need of AngularJS in real web sites, Downloading AngularJS, AngularJS first example, AngularJS built-in directives, AngularJS expressions, AngularJS modules, AngularJS controllers, AngularJS scope AngularJS dependency injection AngularJS, bootstrapping AngularJS data bindings, AngularJS \$watch, AngularJS filters, AngularJS events, AngularJS AJAX, Ng-repeat, AngularJS with json arrays, AngularJS registration form and login form, AngularJS CRUD operations, AngularJS Animations, AngularJS validations AngularJS \$q, AngularJS custom values, AngularJS custom factories, AngularJS custom services, AngularJS custom directives, AngularJS custom providers, AngularJS Routing, AngularUI Routing.

#### **References:**

1. jOuery UI 1.8: The User Interface Library for jOuery by Dan Wellman

2. jQuery Fundamentals by Rebecca Murphey 3. Ajax: The Complete Reference by Thomas A. Powell

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

	COMPU	TER SCIENCE	CSC-603CE	2019-'20	B.Sc.(MPCs)
SEME	ESTER – V	VI	PAPER – VIII		Max. Marks 75
Model	Paper	Advanced java S	cript: JQUERY/AJAX	JSON/AN	GULAR JS
NO Of	f Hours:3		No Of Credits: 3		Pass Marks 30

Section-A

#### Pass Marks 30

#### 10 Hrs

#### 15 Hrs

#### 15 Hrs

30

Answer **<u>FIVE</u>** Questions. Each Question carries **FIVE** Marks. **5\*5=25M** 

- 1 .What is jquery? Write a simple program to display welcome message.
- 2. Write a jquery-dom attributes.
- 3. How we can apply css properties in j query?
- 4. Write a program for jquery fade In, fade Out.
- 5. Discuss in detail about jquery UI categorization.
- 6. Write a need of AJAX in real websites.
- 7. What is ISON? Write a syntax &need of ISON in real websites.
- 8. Write a short notes angularJS built-in directives.

#### Section- B

Answer **<u>FIVE</u>** Questions. Each Question carries **TEN** Marks **5\*10=50M** 

- 9. Explain in detail about DOM traversing methods.
- 10. Explain detail about jquery-dom manipulation methods.
- 11. Explain detail about jquery even handling methods.
- 12. Write a program for droppable , resizable using jquery UI.
- 13. How can we manipulate the data in a database using jquery-AJAX.
- 14. What is JSON object ? Discuss in detail about complex JSON objects.
- 15. What is angular JS ? Need of angular JS in real websites &write any example program.

16. Write a program for registration from and login from using Angular JS.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

	COMPUTER SCIE	INCE	CSC-603CE	2019-'20	B.Sc.(MPCs)
SEMI	ESTER – VI	PAPE	R – VIII	Max. Marks	75 Pass Marks 30
Guideli	nes for paper setting <u>-</u>	<u>-'</u> Advan	iced java Script: J	QUERY/AJA	X/JSON/ANGULAR JS'

	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1	2	1
Unit-2	2	2
Unit-3	1	1
Unit-4	2	2
Unit-5	1	2

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-2018)

				/		
	COMPUTER SCIENCE	CSC-603CE	2019-'20	B.Sc.(M	IPCS)	
SEN	AESTER – VI	PAPER – V	/111	Max. Ma	rks 50	
Lab	List Advanced java Script	: JQUERY/AJAX	JSON/ANGU	JLAR JS	Pass Mar	·ks 25
No.	of Hours per week: 3	External: 2	25 Int	ternal: 25		

Credits: 2

1. Using jQuery find all textareas, and makes a border. Then adds all paragraphs to the jQuery object to set their borders red.

- 2. Using jQuery add the class "w3r\_font\_color" and w3r\_background to the last paragraph element.
- 3. Using jQuery add a new class to an element that already has a class.
- 4. Using jQuery insert some HTML after all paragraphs.
- 5. Using jQuery insert a DOM element after all paragraphs.
- 6. Convert three headers and content panels into an accordion. Initialize the accordion And specify the animate option

7. Convert three headers and content panels into an accordion. Initialize the accordion and specify the height.

8. Create a pre-populated list of values and delay in milliseconds between a keystroke occurs and a search is performed.

- 9. Initialize the button and specify the disable option.
- 10. Initialize the button and specify an icon on the button.
- 11. Initialize the button and do not show the label.
- 12. Create a simple jQuery UI Datepicker. Now pick a date and store it in a textbox.
- 13. Initialize the date picker and specify a text to display for the week of the year column heading.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

COMPUTER SCIENCE	CSC PROJ-602 P	2019-'20	B.Sc.(MPCs)
------------------	----------------	----------	-------------

SEMESTER – VI

PROJECT (PHP & MYSQL)

Max. Marks 100

33

OBJECTIVE

The objective of the Project Course is to help the students to study, analyze and design software or utility for different problems or applications. This will improve the skills of software development of the students.

#### MARKS FOR PROJECT EVALUATION

The project course will be evaluated for **100** Marks, of which **75** marks are meant for the practical evaluation of a project and **25** marks are allotted for attending viva-voce examination. The passing minimum in the project work will be 50% of the total mark. i.e. the student should get minimum 50% marks in the project evaluation and the viva-voce examination. Thus, the minimum mark the student is required to obtain is 50 out of 100 marks.

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

	COMPUTER SO	CIENCE	CCSC-507C	2019-'20	B.Sc.(MPCs)	
SEMI	ESTER – VI	PAPE	R – VIII	Max. Marks	75 Pass Marks 30	

Guidelines for paper setting 'WEB TECHNOLOGIES'

Unit wise weightage of Marks

	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	1	2
Unit-4	2	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section -A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within he jurisdiction of Krishna University A.P, India. (With Effect Form Academic Year 2017-2018)

		ricudenne i v	ai <b>201</b> 7 <b>2010</b> )
COMPUTER SCIENC	CE COM-CSC-605	2019-20	B.Com (C.A)
SEMESTER –VI	PAPER –	IX	Total: 60 Hrs
Syllabus	TALLY	Y	
Credits 3	NO Of Hours 5		Pass Marks 30
Unit-I: Introduction to Ta	ally:		12Hrs

35

Introduction, Software versions of Tally, Terminology related to Accounts credit & Debit, Journal, Ledger, Voucher, Group etc. Difference between Manual Accounting and Accounting Packages. Features and advantages of Tally.

#### **Unit-II: Introduction of Tally Software**

Introduction of Tally Software Creation of a company, Gateway of Tally, Accounts Information,

Groups, pre defined Groups, Creation of New Groups, Creation of sub Group.

#### **Unit-III: Ledgers**

Ledger Creation Single and multiple Ledgers, Displaying & altering Ledgers, configure Ledger, Stock Ledger, Ledgers and their Group Allocation.

#### **Unit-IV: Vouchers**

Types of vouchers – recording of vouchers – entry of payment voucher, Receipt voucher, sales voucher, purchase voucher, Journal Voucher, Contra Voucher, Debit & Credit Note. Creating New Voucher types, customizing the Existing voucher types, Alternation of Voucher, Deletion of Voucher.

#### **Unit-V: Final Accounts**

Customizing the final accounts – Profit and Loss Account, Balance Sheet. Key board shortcuts in Tally. Generating the Reports from Tally, Trial Balance, Account Books, Sales, Purchase, Journal Registers, Statement of Accounts, Day Book, List of Accounts.

#### **Reference Books:**

- 1. K. Kiran Kumar, Tally ERP9.
- 2. Tally 9 In Simple Steps, Kogent solutions Inc., John Wiley & Sons, 2008.
- 3. Narmata Agarwal, Financial Accounting on Computers Using Tally, Dreamtech Press, 2000.
- 4. Tally 9.0, Google eBook, Computer World.
- 5. Vikas Gupta, Comdex Computer and Financial Accounting with Tally 9.0, 2007.
- 6. Tally ERP 9 Made Simple Basic Financial Accounting, BPB Publisher.
- 7. Avichi Krishnan, Tally ERP 9 for Real Time Accounting, Book Ganga.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2017-2018)

		ricuatine re	
COMPUTER SCIENCE	COM-CSC-605	2019-20	B.Com (C.A)
SEMESTER –VI	PAPER –	IX	Total: 60 Hrs
Model Paper	TAL	LY	
Credits 3	NO Of Hours 5		Pass Marks 30

# 12Hrs

12Hrs

12Hrs

## 12Hrs

Answer **<u>FIVE</u>** Questions. Each Question carries **FIVE** Marks. **5x5=25M** 

- 1. Differentiate between Manual Accounting and Accounting Packages?
- 2. What are the features of Tally?
- 3. How to maintain account information? Explain
- 4. How to create a new group in Tally
- 5. Explain how to create a stock ledger?
- 6. How to display and alter a ledger?
- 7. Explain contra Voucher
- 8. Write a short note on Day Book

#### Section- B

Answer **<u>FIVE</u>** the Questions. Each Question carries **TEN** Marks 5 X 10=50M

- 9. Explain evolution of Tally and what are the features and advantages of Tally
- 10. Explain versions of Tally software
- 11. Explain about Gateway of Tally
- 12. Explain about Group and predefined Groups
- 13. Explain ledger creation
- 14. How to create a single and multiple ledgers
- 15. Explain different types of vouchers?
- 16. Explain how to generate the reports from Tally?

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2018-'19)

COMPUTER SCIENCE	CCSC-605CE	2019-20	B.Com (C.A)
SEMESTER –VI	PAPER – IX	Max. Marks	75 Pass Marks 30
(	Guidelines for paper	setting <u>' TAL</u>	LY'

Unit wise weightage of Marks
	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2017-'18)

	COMPUTER SCIENCE	COMCSC-605	P 2019-20	B.Com.(C.A.)
<b>SEM</b>	ESTER – VI	PAPER – V		Max. Marks:50
				Pass Mark: 25
		TALLY		
No. C	of Hours per week: 3	External: 25	Internal: 25	Credits: 2
Lab l	ist			

- 1. Architecture and customization of Tally
- 2. Configuration of Tally
- 3. Tally Screens and Menus
- 4. Creation of new company and groups.
- 5. Preparation of voucher entries.
  - a. Payment voucher creation
  - b. Receipt voucher creation
  - c. Sales voucher creation
  - d. Purchase voucher creation
  - e. Contra voucher creation
  - f. Journal voucher creation
- 6. Ledger Creation.
- 7. Preparation of VAT
- 8. Preparation of TDS
- 7. Preparation of Trail balance
- 8. Preparation of Profit and loss statement.
- 9. Preparation of Balance Sheet
- 10. Preparation of Bank Reconciliation Statement.
- 11. Example Exercise

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2017-2018)

		i incaucinic i i		
COMPUTER SCIENCE	COM-CSC-606	2019-20	B.Com (C.A)	
SEMESTER –VI	PAPER -	- X	Total: 60 Hr	S
Syllabus	E-COMME	CRCE		
Credits 3	NO Of Hours 5		Pass Marks 30	
Unit-I: Introduction to E-C	ommerce			

Scope, Definition, e-Commerce and the Trade Cycle, Electronic Markets, Electronic Data Interchange, Internet Commerce. Business Strategy in an Electronic Age: Supply Chains, Porter's Value Chain Model, Inter Organizational Value Chains, Competitive Strategy, First Mover Advantage – Sustainable Competitive Advantage, Competitive Advantage using E-Commerce – Business Strategy.

#### Unit-II: Business-to-Business Electronic Commerce

Characteristics of B2B EC, Models of B2B EC, Procurement Management by using the Buyer's Internal Market place, Just in Time Delivery, Other B2B Models, Auctions and Services from traditional to Internet Based EDI, Integration with Back-end Information System, Role of Software Agents for B2B EC, Electronic marketing in B2B, Solutions of B2B EC, Managerial Issues, Electronic Data Interchange (EDI), EDI: Nuts and Bolts EDI and Business.

#### **Unit-III: Internet and Extranet**

Automotive Network Exchange, Largest Extranet, Architecture of the Internet, Intranet and Extranet, Intranet software, Applications of Intranets, intranet Application Case Studies, Considerations in Intranet Deployment, Extranets, Structures of Extranets, Extranet products and services, Applications of Extranets, Business Models of Extranet Applications, Managerial Issues. Electronic Payment Systems: Issues and Challenges .

#### **Unit-IV: Public Policy**:

From Legal Issues to Privacy : Legal Incidents, Ethical and Other public Policy Issues, Protecting Privacy, Protecting Intellectual Property, Free speech, Internet Indecency and Censorship, Taxation and Encryption Policies, Other Legal Issues: Contracts, Gambling and More, Consumer and Seller Protection in EC.

#### **Unit-V: Infrastructure For EC**

Network of Networks, Internet Protocols, Web- Based client/Server, Internet Security, Selling on the Web, Chatting on the Web, Multimedia delivery, Analyzing Web Visits, Managerial Issues, Equipment required for establishing EC Sites – problems in Operation – Future of EC.

#### **Reference Books**

- 1. David Whiteley, "E-Commerce", Tata McGraw Hill, 2000.
- 2. E Business by Parag Kulakarni and Sunitha Jahirabadkar from Oxford University Press.
- 3. E Business by Jonathan Reynolds from Oxford University Press.
- 4. Eframi Turban, Jae Lee, David King, K. Michael Chung, "Electronic Commerce",
- 5. Pearson Education, 2000.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Vear 2017-2018)

COMPUTER SCI	ENCE	COM-CSC-606	2019-20	B.Com (C.A)	
<u>SEMESTER –VI</u> Syllabus	E	PAPER - -COMMERCE	- X	Total: 6	60 Hrs
Credits 3		NO Of Hours5		Pass Marks 30	

<u>Section-A</u> Answer FIVE Questions. Each Question carries FIVE Marks.	5*5=25M
1. Explain Electronic data interchange?	
<ol> <li>Write about Value Chain Model</li> </ol>	
3. What are the characteristics of B2B Electronic Commerce	
4. What is the role of software agents for B2B Electronic Commerce	?
5. Write about applications of Intranet?	
6. Explain the structure of Extranet?	
7. Explain encryption policies?	
8. Write about Internet protocols?	
Section-B	
Answer <b><u>FIVE</u></b> Questions. Each Question carries <b>TEN</b> Marks.	5*10=50M
9. What are the advantages and limitations of E-commerce?	
10. Write Business Strategy in an Electronic age	
11. Explain Electronic Data Interchange(EDI)	
12. Explain different Models of B2B Electronic Commerce?	
13. Explain the Architecture of Internet?	
14. Explain Business Models of Extranet Applications?	
15. Explain Ethical and Other public Policy Issues?	
16. Explain about the future of EC	

An Autonomous college within he jurisdiction of Krishna University A.P, India.

(With Effect From Academic Year 2017-2018)

COMPUTER SCIENCE	COM-CSC-606	2019-20	B.Com (C.A)
SEMESTER –VI	PAPER – X	Max. Marks	75 Pass Marks 30

## Guidelines for paper setting <u>'E-COMMERCE'</u>

#### Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Vear 2018-'19)

		(With Effect Fion	i maucinic i	$car = 0.10^{-17}$
	COMPUTER SCIENCE	CCSC-607CE	2019-20	B.Com (C.A)
S	EMESTER –VI	PAPER –	XI	L
S	yllabus	PHP& MY	SQL	
<u>C</u>	redits 5			

#### **Unit-I: Building blocks of PHP:**

Variables, Data Types, Operators and Expressions, Constants. Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output. Working with Functions: Defining Functions, Calling functions, returning the values from UserDefined Functions, Variable Scope, Saving State between Function calls with the Static statement, more about arguments.

#### **Unit-II: Working with Arrays:**

Arrays, Creating Arrays, Some Array-Related Functions. Working with Objects: Creating Objects, Object Instance. Working with Strings, Dates and Time: Formatting Strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.

#### **Unit-III: Working with Forms:**

Creating Forms, Accessing Form – Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads. Working with Cookies and User Sessions: Introducing Cookies, Setting a Cookie with PHP, Session Function Overview, Starting a Session, Working with session variables, passing session Ids in the Query String, Destroying Sessions and Unsetting Variables, Using Sessions in an Environment with Registered Users.

#### **Unit-IV: Working with Files and Directories:**

Including Files with include(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files, Writing or Appending to a File, Working with Directories, Open Pipes to and from Process Using popen (), Running Commands with exec(), Running Commands with system () or passthru (). Working with Images: Understanding the Image-Creation Process, Necessary Modifications to PHP, Drawing a New Image, Getting Fancy with Pie Charts, Modifying Existing Images, Image Creation from User Input.

#### Unit-V: Interacting with MySQL using PHP:

MySQL Versus MySQLi Functions, Connecting to MySQL with PHP, Working with MySQL Data. Creating an Online Address Book: Planning and Creating Database Tables, Creating Menu, Creating Record Addition Mechanism, Viewing Records, Creating the Record Deletion Mechanism, Adding Subentities to a Record.

#### References:

1. Julie C. Meloni, PHP MySQL and Apache, SAMS Teach Yourself, Pearson Education (2007).

2. Xue Bai Michael Ekedahl, The Web Warrior Guide to Web Programming, Thomson (2006).

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2017-2018)

COMPUTER	SCIENCE	COM-CSC-607	2019-20	B.Com (C.A)	
SEMESTER –VI		PAPER – 2	KI	Total: 6	0 Hrs
<u>Syllabus</u>	PHI	P & MYSQL			
Credits 5		NO Of Hours 5		Pass Marks	; 30

<u>Section-A</u>

Answer **<u>FIVE</u>** Questions. Each Question carries **FIVE** Marks.

5\*5=25M

- 1. Explain about different data types available in PHP?
- 2. Define function? Explain how to call the function?
- 3. Write a short note on Creating Objects
- 4. Explain about date and time functions?
- 5. Write about Session Function?
- 6. Explain about cookies?
- 7. Explain about Reading from files?
- 8. Describe how to create the Record Addition Mechanism?

#### Section-B

Answer **<u>FIVE</u>** Questions. Each Question carries **TEN** Marks. 5\*10=50M

- 9. Explain different types of Operators in PHP?
- 10. Explain flow control functions in PHP?
- 11. What is an Array? Explain about array related functions.
- 12. Explain different string functions in PHP?
- 13. Explain about how to create and access a form in PHP?
- 14. Describe the working with session variables?
- 15. Explain working with Directories?
- 16. Explain about how to insert and retrieve the data in PHP?

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2017-2018)

	(With Effect From Academic Feat 2017-2010)						
	COMPUTEZR SCIENCE	COM-CSC-607	2019-20	B.Com (C.A)			
S	EMESTER –VI	PAPER – XI	Max. Marks	75 Pass Marks 30	)		

#### Guidelines for paper setting 'PHP & MYSQL'

Unit wise weightage of Marks

Section-A	Section-B
(Short answer questions)	(essay questions)

Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2017-2018)

		(		10000000000	•••• =•=•=•	_
	COMPUTER S	CIENCE	CCSC-607	2019-20	B.Com (C.A)	
<u>SEN</u>	AESTER –VI		PAPER – V	<b>VI</b>	Total: 6	0 Hrs
]	Lab List	PHP, MySQL			Pass Marks	25
]	No. of Hours per	week: 2	External: 25	Int	ernal: 25	Credits: 2
MyS	SQL Lab Cycle					

Cycle -1

An Enterprise wishes to maintain the details about his suppliers and other corresponding details. For that he uses the following details.

Suppliers (sid: Integer, sname: string, address: string) Parts (pid: Integer, pname: string, color: string) Catalog (sid: integer, pid: integer, cost: real)

The catalog relation lists the prices charged for parts by suppliers.

Write the following queries in SQL:

- 1. Find the pnames of parts for which there is some supplier.
- 2. Find the snames of suppliers who supply every part.
- 3. Find the snames of supplier who supply every red part.
- 4. Find the pnames of parts supplied by London Supplier abd by no one else.
- 5. Find the sid's of suppliers who charge more for some part than the average cost of that part.
- 6. For each part, find the sname of the supplier who charges the most for that part.
- 7. Find the sid's of suppliers who supply only red parts.
- 8. Find the sid's of suppliers who supply a red and a green part.
- 9. Find the sid's of suppliers who supply a red or green part.
- 10. Find the total amount has to pay for that suppler by part located from London.

Cycle - 2

An organisation wishes to maintain the status about the working hours made by his employees. For that he uses the following tables.

Emp (eid: integer, ename: string, age: integer, salary: real)

Works (eid: integer, did: integer, pct\_time: integer)

Dept (did: integer, budget: real, managerid: integer)

An employee can work in more than one department; the pct\_time field of the works relation shows the percentage of time that a given employee works in a given department.

Resolve the following queries.

1. Print the names and ages of each employee who works in both Hardware and Software departments.

2. For each department with more than 20 full time equivalent employees (i.e., where the parttime and full-time employees add up to at least that many full-time employees), print the did's together with the number of employees that work in that department.

- 3. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she work in.
- 4. Find the managerid's of managers who manage only departments with budgets greater than 1,000,000.
- 5. Find the enames of managers who manage the departments with largest budget.

6. If a manager manages more than one department, he or she controls the sum of all the budgets for those departments. Find the managerid's of managers who control more than 5,000,000.

- 7. Find the managerid's of managers who control the highest amount.
- 8. Find the average manager salary.

PHP Lab Cycle

- 1. Write a PHP program to Display "Hello"
- 2. Write a PHP Program to display the today's date.
- 3. Write a PHP Program to read the employee details.
- 4. Write a PHP Program to display the
- 5. Write a PHP program to prepare the student marks list.
- 6. Write a PHP program to generate the multiplication of two matrices.
- 7. Write a PHP Application to perform demonstrate the college website.
- 8. Write a PHP application to add new Rows in a Table.
- 9. Write a PHP application to modify the Rows in a Table.
- 10. Write a PHP application to delete the Rows from a Table.
- 11. Write a PHP application to fetch the Rows in a Table.
- 12. Develop an PHP application to make following Operations
  - i. Registration of Users.
  - ii. Insert the details of the Users.
  - iii. Modify the Details.
  - iv. Transaction Maintenance.
    - a) No of times Logged in
    - b) Time Spent on each login.
    - c) Restrict the user for three trials only.
    - d) Delete the user if he spent more than 100 Hrs of transaction.

→Discussed and recommended the teaching and evaluation methods for approval of Academic Council. *Teaching methods:* 

Besides the conventional methods of teaching, we use modern technology i.e. Using of LMS and LCD projector to display on power board etc..for better understanding of concepts.

#### Evaluation of a student is done by the following procedure:

There are two components in the Valuation and Assessment of a student – Internal Assessment (IA) Semester Examinations (SE). For the Batch of Students Admitted from 2018-19.

#### Internal Assessment (IA)

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical papers 50.
- Each IA written examination is of 1 hour's duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /ppt/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation. For attendance 5 Marks are allotted.
- The semester examination will be of 3 hours with maximum 70 marks.
- There is no passing minimum marks for IA.

#### Semester Examinations (SE)

- A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.
- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration & Foundation course 2 hours irrespective of the number of credits allotted to it.
- If a candidate fails to obtain pass marks even after the due to less mark in the IA examination, the marks of the next examination will be converted to be out of 100.
- Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'.
- The maximum marks for each Paper shall be 100.

Evaluation of a student is done by the following procedure for All II & III Year B.Sc. (MPCs) & B.Com. (C.A). For the Batch of Students Admitted from 2016-17.

#### Internal Assessment Examinations:

- i) Out of maximum 100 marks in each paper, 25 marks shall be allocated for internal assessment.
- Out of these 25 marks, 20 marks are allocated for announced internal tests. Two announced internal tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, remaining 5 marks are allocated on the basis of candidate's percentage of attendance.

#### **Semester-End Examinations**:

- i) The maximum marks for Semester-End examinations shall be 75 marks and duration of the examination shall be 3 Hours.
- ii) Semester-End examinations shall be conducted in theory papers and the practical papers are conducted at the end of every Semester for II & III B.Sc. (MPCs) only.
- Odd semester practical end examinations are to be evaluated by Internal Examiners and Even semester practical end examinations are to be evaluated by External Examiners.
- iv) V semester end C practical examination are to be evaluated by Internal Examiners and Even semester Tally Practical examinations are to be evaluated by External Examiner for III B.Com (Computers) students only.

Question paper guide lines for Practical Examinations at the end of Semesters III &IV Two Practical Programs to be conducted out of 15 programs at the end of Semester III & IV Practical Examination time 3Hrs and Maximum Marks 50 Scheme of valuation Semesters – II & IV B.Sc. (M.P.Cs), B.Com (Computers)

Computer Science Practical's - External (2	Гime: 3 hrs.)	Total Marks: 25M
<ol> <li>Programs Writing (2):</li> <li>Viva voice :</li> <li>Execution &amp; Result :</li> </ol>	10 marks, 5 marks 10 marks	
Total Marks `:	25	
<b>Computer Science Practical's- Internal</b>		Total Marks: 25M
<ol> <li>Attendance</li> <li>Record</li> <li>Day to day observation</li> <li>Problem solving and Execution</li> </ol>	: 5 : 1 : 5 : 5	marks 0 marks marks marks

:

 Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council. Discussed and recommended to conduct certificate courses for Computer Science and Non-Computer Science students separately like TALLY ACCOUNTING PACKAGE, ADOBE PHOTOSHOP, DESKTOP PUBLISHING, COMPUTER HARDWARE AND NETWORKING, WEB DESIGNING, OPERATING SYSTEMS, ETC...

\_\_\_\_\_

25

-----

- 2. Discussed and empowered the HOD to suggest the panel of the paper setters and examiners to the controller of the examinations.
- 3. Nil.

Total Marks

Chairman

# A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

# VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

# Accredited by NAAC with "A" Grade

# 2019-2020



# **DEPARTMENT OF COMPUTER SCIENCE**

# **MINUTES OF BOARD OF STUDIES**

# **ODD SEMESTER**

17-04-2019

Minutes of the meeting of Board of Studies in Computer Science for IIB.Sc.(MPCs, MCCs), B.Com.(C.A.) and Foundation Course of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10.00 A.M on 17-04-2019 in the Department of Computer Science.

Sri Ch. Mohan Babu ... Presiding

Chairman (Ch. Mohan Babu)

.University 2)..... (Dr. R Kiran Kumar) Nominee

Academic Council (Dr. Suresh Sundaradasu )

Academic Council (Dr. K Bhag Nominee

Nominee

Industrial Expert (R. Sowjanya) ember 1.11 6)....

(T.Naga Prasada Rao)

.Member (K Srikanth)

Member 8)..... (L.Pujitha)

......R ..... Member 9). (Ch. Sowmya Krishna)

10) Sharmile ( Sagna Member (Sharmila Begum)

11) S. Moniela Member (S. Mounika)

Members Present:

Head, Department of Computer Science AG & SG Siddhartha Degree College of Arts & Science Vuyyuru-521165

Professor, Dept of Computer Science, Krishna University, Machilipatnam.

Head, Department of Computer Science& Engineering, Dhanekula Institute of Engineering & Technology, Ganguru, JNTU(K), Vijayawada.

Professor, Department of Computer Science & Engineering, Lingaya's Institute of Management & Technology, JNTU(K) Vijayawada.

Microsoft Dynamics CRM, Maven Soft System Private Ltd.Madapur,Hyderbad.

Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165.

Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165.

Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165

Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165

Student in M.Sc. Computer Science, AG& SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165

Student in B.Sc. Computer Science, AG& SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165

2

#### Agenda for B.O.S Meeting.

- To recommend syllabi for I Semester of I year, III Semester of II year Degree B.Sc. (MPCs, MCCs.), B.Com (C.A.), & V Semester of III year Degree B.Sc.(MCCs) Courses under Choice Based Credit System With Effect From Academic Year 2019-20.
- To recommend the Model Question Papers, Lab programs list and Blue print of I Semester of I year, III Semester of II year Degree B.Sc.(MPCs, MCCs.),B.Com (C.A.), & V Semester of III year Degree B.Sc.(MCCs) Courses under Choice Based Credit System With Effect From Academic Year 2019-20.
- To recommend the Guidelines to be followed by the question paper setters in Computer Science for I Semester of I year, III Semesters of II year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.) & V Semester of III year Degree B.Sc.(MCCs) Courses under Choice Based Credit System With Effect From Academic Year 2019-20.
- 4. To recommend the teaching and evaluation methods to be followed under Autonomous status.
- 5. To recommend the certificate courses for all Computer Science and Non-Computer Science students any suggestions regarding seminars, workshops, Guest lecturers to be organized.
- 6. To recommend the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG & SG Siddhartha Degree College of Arts & Science College, Vuyyuru.
- 7. Any other matter.

#### Resolutions

- Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement syllabi for I Semester of I year, III Semester of II year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), & V Semester of III year Degree B.Sc.(MCCs) Courses under Choice Based Credit System with Effect from Academic Year 2019-20.
- 2) Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement Model Question Papers, Lab Programs List and blue print for I Semester of I year, III Semester of II year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), & V Semesters of III year Degree B.Sc.(MCCs) Courses under Choice Based Credit System with Effect from Academic Year 2019-20.
- Discussed and recommended the guidelines to be followed by Question Paper Setters in Computer Science for I Semester of I year, III Semester of II year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), & V Semesters of III year Degree B.Sc.(MCCs) Courses under Choice Based Credit System With Effect From Academic Year 2019-20.
- Discussed and recommended the NO changes appeared as per previous paper in the syllabi ,Question Paper & Lab Cycle for
  - I Semester of I Year B.Sc. (MPCs, MCCs) & B.Com.(CA).
  - III Semester of II Year B.Sc. (MPCs, MCC's) & B.Com. (CA).
  - V Semester of III Year B.Sc. (MPCs) & B.Com.(CA).
  - Foundation Course for All Degree Courses under Choice Based Credit System with Effect from Academic Year 2018-19.
- 5) Discussed and recommended the teaching and evaluation methods for approval of Academic Council.
- 6) Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council. Discussed and recommended to conduct certificate courses for Computer Science and Non-Computer Science students separately.
- 7) Discussed and recommended to introduce Certificate Course on "Basic Computer Applications & MS Office" with course code "BCAM102" for I MPC's.
- 8) Discussed and recommended to introduce Certificate Course on "Hardware and Networking" with course code "HANCC12" for II MPC's,MCC's,MPC,B.COM(CA).
- 9) Discussed and recommended to introduce Certificate Course on "AWS" with course code "CCAWS-01" for III MPC's ,MCC's & III B.COM(CA).
- 10) It is resolved to suggest the panel of the paper setters and examiners to the controller of the examinations.

ch. Helens Chairman

4

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

COMPUTER SCIENCE	CSC-501C	2019-20	B.Sc.(MPCs)
SEMESTER – V	PAPER – V	I	Max. Marks 75
<u>Syllabus</u> D.	ATA BASE MANA	GEMENT SY	YSTEMS
NO Of Hours: 4	No Of Cred	lits: 3	Pass Marks 30

Course Objective: Design & develop database for large volumes & varieties of data with

optimized data processing techniques.

#### **Unit – I: Database Systems Introduction**

Database Systems: Introducing the database and DBMS, Why the database is important, Historical Roots: Files and File Systems, Problems with File System, Data Management, Database Systems. Data Models: The importance of Data models, Data Model Basic Building Blocks, The evaluation of Data Models, Degree of Data Abstraction.

#### Unit - II: Relational Database & Data Modelling

The Relational Database Model: A logical view of Data, Keys, Integrity Rules, Relational Set Operators, The Data Dictionary and the system Catalog, Indexes, Codd's relational database rules. Entity Relationship Model: The ER Model Advanced Data Modelling: The Extended Entity Relationship Model, Entity clustering, Entity integrity.

#### **Unit- III: Normalization and Database Design**

Normalization of database tables: Data base Tables and Normalization, The need for Normalization, The Normalization Process, High level Normal Forms, Normalization and database design, de normalization.

Database Design: The Information System, The Systems Development Life Cycle, The Database Life Cycle, Centralized Vs Decentralized design.

#### **Unit-IV: Structured Query Language**

Introduction to SQL: Data Definition Commands, Data Manipulation Commands, Select queries, Advanced Data Definition Commands, Advanced Select queries, Virtual Tables, SQL Join Operators, Sub queries and correlated queries, SQL Functions.

#### **Unit-V: Procedural SQL**

Introduction to PL/SQL: Triggers, Stored Procedures, Pl/ SQL Stored Functions

#### **Prescribed Text Book:**

1. Peter Rob, Carlos Coronel, Database Systems Design, Implementation and Management, Seventh Edition, Thomson (2007).

#### **Reference Books:**

- 1. Elimasri / Navathe, Fundamentals of Database Systems, Fifth Edition, Pearson Addison Wesley 2. Raman A Mata – Toledo/Panline K Cushman, Database Management Systems, .
- 2. C.J.Date, A.Kannan, S.Swamynathan, An Introduction to Database Systems, Eight edition,
- 3. "DatabaseSystemConcepts" by AbrahamSilberschatz, Henry Korth, and S.Sudarshan,
- 4. Atul Kahate, Introduction to Database Management Systems, Pearson Education (2006). Student Activity: 1. Create your college database for placement purpose. 2. Create faculty database of your college with their academic performance scores

5

#### **10 Hrs**

12 Hrs

# 12Hrs

**12 Hrs** 

14 Hrs

COMPUTER SCIENCE	CSC-501C	2019-20	B.Sc.(MP	PCs)
SEMESTER – V	PAPER	$-\mathbf{V}$		Max. Marks 75
Model PaperDANO Of Hours: 4	ATA BASE MANA <u>No Of Crec</u>	GEMENT S <u>lits: 3</u>	SYSTEMS	Pass Marks (
nswer any <b><u>FIVE</u></b> Questions.	Section-A Each question carrie	es <b>FIVE</b> Mar	ks	5x5=25M
. Explain the Components of	f Database System.			
. Explain Relational Data M	odel.			
. Write about Relational Set	Operators.			
. Explain Integrity Rules.				
. Describe BCNF.				
Differences between Centr	alized and Decentra	lized design.		
. Write about Special Functi	ons.			
. Explain Stored Procedures				
	Section-B			
Answer any <b><u>FIVE</u></b> Questions.	Each question carrie	es <b>TEN</b> Mark	S	5X10=501
. What is File? Explain the p	roblems with File s	ystem		
0. Explain the Degree of Data	Abstraction.			
1. Explain E.F.CODDs' rules				
2. Explain Extended Entity R	elationship Model.			
3. Explain the concept of Nor	mal Forms.			
4. Explain about SDLC.				
5. Explain DDL and DML co	mmands.			

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

COMPUTER SCIEN	CE	CSC-501C	2019-20	B.Sc.(MPCs)	
SEMESTER - V	PAP	ER – V	Max. Marks 75	5 Pass Marks 30	

Guidelines for paper setting '<u>DATA BASE MANAGEMENT SYSTEMS'</u> <u>Unit wise weightage of Marks</u>

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

		(With	Effect from Acader	mic Year 2018-'19)		
	COMPUTE	R SCIENCE	CSC-501P	2019-20	B.Sc.(MPCS)	
SEM	IESTER – V		PAPER –	·V	Max. Marks 50	
Lab No. (	List of Hours per	DATA BASE week: 2	E MANAGEMENT External: 25	SYSTEMS Internal: 25	Pass Marks 25 Credits	s: 2

- 1. Creation of college database and establish relationships between tables
- 2. Explain various data type in Oracle.
- 3. Show the structure of the Emp table.
- 4. Show the structure of the DEPT table.
- 5. Explain the syntax of SELECT statement.
- 6. Create a query to display the name, job, hiredate and employee number from emp table.
- 7. Create a query to display unique jobs from the emp table.
- 8. Create a query to display the empno as EMP#, ename as EMPLOYEE and Hire\_date from emp.
- 9. Create a query to display all the data from the EMP table. Separate each column by a comma and name the column THE\_OUTPUT.
- 10. Create a query to display the name and salary of employees earning more than 2850.
- 11. Create a query to display the name and salary for all employees whose salary is not in the range of 1500 and 2850.
- 12. Display the employee name, job and start date of employees hired between February 20 ,1981 and May 1, 1981. Order the query in ascending order of start date
- 13. Display the employee name and department number of all the employees in departments 10 and 30 in alphabetical order by name.
- List the name and salary of employees who earn more than 1500 & are in department 10 or 30.
- 15. Display the name, salary and commissions and sort data in descending order of salary and commission.
- 16. Display the name and job title of all employees who do not have a manager.
- 17. Display the name, job and salary for all employees whose job is Clerk or Analyst and their salary is not equal to 1000, 3000 or 5000.
- 18. Display the names of all employees where the third letter of their name is an 'A'.
- 19. Display the names of all employees who have two 'L's in their name and are in department 30 or their manager is 7782.
- 20. Display the name, salary and commission for all employees whose commission amount is grater than their salary increased by 10%.
- 21. Explain all the character functions.
- 22. Explain all the number functions.
- 23. Explain all the Date functions.
- 24. Explain different types of JOIN.
- 25. Write a query to display the name, department number and department name for all employees.
- 26. Create a unique listing of all jobs that are in department 30. and include the location of department 30 in the output.

- 27. Write a query to display the employee name, department name and location of all employees who earn a commission.
- 28. Write a query to display the name ,job department number and department name for all employees who work in 'DALLAS'.
- 29. Create a query to display the name and hire date of any employee
- 30. hired after employee BLAKE.
- 31. Display all employees names and hire dates along with their manager's name and hire date for all employees who were hired before their managers.
- 32. Create your own users and give permissions to you and explain GRANT and REVOKE Commands.
- A. <u>Create MOVIE database using the following tables.</u>

MOVIE: Movie no: primary key, varchar2 Movie name: NOT NULL, varchar2 Movie Type: varchar2 Star: Varchar2

CUSTOMER: Customer No: primary key, varchar2 Customer Name: NOT NULL, varchar2 Address: NOT NULL Phone no: Number INVOICE: Invoice no: Varchar2, primary key

Movie no: foreign key Customer no: foreign key

Price: NOT NULL, Number

Queries:

- 1. List the movie names that starts with 'p'
- 2. List the number of the movies those price ranges from 15000 and 20000
- 3. List the customers who have phone numbers.
- 4. List the customers who have no phone numbers.
- 5. Display the following string
  - (a) A Customer "customer number" has bought the "movie number" "movie name" with "Price"
- 6. List the customers by calculating price as (price\*tax)/100 where tax=0.5 and rename the column as 'tax'.
- 7. List the movies, which are owned by 2 customers.
- 8. List the customers, who bought 2 picture names.
- 9. List the customers, who are not the range of 15000 and 20000.
- B. Create Student database using the following tables.

STUDENT: Sno : primary key, number Sname : NOT NULL, varchar2 Address: Varchar2 COURSE: Sno : Foreign key. Course Name : varchar2 Oueries:

- 1. Alter table by adding a column fees in table COURSE.
- 2. Alter table by modifying the address to VARCHAR2(20)
- 3. Create a view on which the students who joined in one course only.

#### PL/SQL.

- 1. Write A Pl/Sql Program To Swap Two Numbers Without Using Third Variable.
- 2. Write A Pl/Sql Program To Generate Multiplication Tables For Numbers 2,4 And 6
- **3.** Write A Pl/Sql Program To Display Sum Of Even Numbers And Sum Of Odd Numbers In The Given Range.
- 4. Write A Pl/Sql Program To Check The Given Number Is Pollinndrome Or Not.
- **5.** Write A Pl/Sql Program To Display Top 10 Rows In Emp Table Based On Their Job And Salary.
- 6. Write A Procedure Update The Salary Of Employee, Who is Not Getting Commission by 10%.

### **Reference Books:**

- 1. Oracle Pl/Sql By Example. Benjamin Rosenzweig, Elena Silvestrova, Pearsoneducation 3rd Edition
- 2. Sql & Pl/Sql For Oracle 10g, Black Book, Dr.P.S. Deshpande

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

COMPUTER SCIENCE	CSC-502C	2019-20	B.Sc.(MPCs)
SEMESTER – V	PAPER	– VI	Max. Marks 75
<u>Syllabus</u>	SOFTWARE EN	GINEERING	J.
NO of Hours: 4	No Of Credits	<u>: 3</u>	Pass Marks 3
Course Objectives			

#### **Course Objectives**

The Objective of the course is to assist the student in understanding the basic theory of software engineering, and to apply these basic theoretical principles to a group software development project.

#### **UNIT-I: Introduction to Software Engineering & Process**

*The Evolving Role of Software*– Software - The Changing Nature of Software, Software Myths, Legacy Software.

*Process*: Software Engineering-A Layered Technology - A Process Framework - The Capability Maturity Model Integration (CMMI) - Process Patterns, Process Assessments -Personal And Team Process Models: Personal Software Process(PSP), Team Software Process (TSP).

#### **Unit-II: Process Models**

The Waterfall Models - Increment Process Models: The Increment Model, The RAD Model -Evolutionary Process Models: Prototyping, The Spiral Model, The Concurrent Development Model - The Unified Process: Phases of The United Process, Unified Process Work Products.

#### **Unit-III: Requirements Engineering**

Requirements Engineering Tasks - Initiating The Requirements Engineering Process - Eliciting Requirements: Collaborative Requirements Gathering, Quality Function Deployment, User Scenarios, Elicitation Work Products - Negotiating Requirements - Validating Requirements.

#### **Unit-IV: Analysis Model**

Requirements Analysis -Analysis Modelling Approaches - Data Modelling Concepts - Object-Oriented Analysis - Scenario-based Modelling - Flow-Oriented Modelling - Class-Based Modelling - Creating a Behavioural Model: Identifying Events with the Use-Case, State Representations.

#### **Unit-V: Design Engineering**

Design Process And Design Quality - Design Concepts - The Design Model: Data Design Elements, Architectural Design Elements, Interface Design Elements, Component-Level Design Elements, Deployment -Level Design Elements.

#### **Prescribed Text Book:**

1. Software Engineering – A Practitioner's Approach, Sixth Edition - Roger S Pressman, TATA McGrawHill: Chapters: 1,2,3,7,8 and 9)

#### **Reference Books:**

- 1. Software Engineering Principles and Practice by Deepak Jain Oxford University Press
- 2. Sommerville, "Software Engineering", Eighth Edition, Pearson Education, 2007

**Student Activity:** Visit any financial organization nearby and prepare requirement analysis report 2. Visit any industrial organization and prepare risk chart.

#### **10Hrs**

12Hrs

12Hrs

14 Hrs

**12 Hrs** 

COMPUTER SCIENCE	CSC-502C	2019-20	B.Sc.(MPCs)	
MESTER – V	PAPER – VI		Max. Mark	s 75
el Paper SO	FTWARE ENGIN	NEERING		
<u>f Hours: 4</u>	<u>No Of Credits:</u>	3		Pass Mar
	Section A			
	<u>Section – A</u>		1	4 5 951
Answer any <u>FIVE</u> Questions.	Each question car	ries FIVE Ma	arks	4x5=25N
1. Write about Software Lay	ered Technology			
2. Explain about Process Fra	mework?			
3. Explain about RAD Mode	1			
4. Explain about Component	Based Developme	ent Model		
5. Write about Requirement	Analysis?			
6. Explain Validating Requir	rements			
7. Explain about Domain An	alysis?			
8. Explain about Modularity	?			
	Section – B			
Answer any <b><u>FIVE</u></b> Questions.	Each question car	ries <b>TEN</b> Ma	rks	5X10=50
9. Explain about CMMI				
10. Explain about Software N	Ayths			
11. Explain about Increment	al Model			
12. Explain about Unified Pro	ocess			
13. Explain about Requireme	nts Engineering Ta	asks		
14. Explain Eliciting Requirer	nents.			
15. Explain Scenario based M	Iodelling.			
16. Write about design concer	nts in design engin	ering		

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

COMPUTER SCIENCE	CSC-502	2019-20	B.Sc.(MPCs	)
SEMESTER – V PAPI	ER – V	Max. Ma	rks 75	Pass Marks 30
Guidelines for p	aper setting 'SOFT	WARE ENG	<b>NEERING'</b>	

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college w (With E	ithin the jurisdic	tion of Krishna emic Year 2018-	University A.P, India. (*19)
COMPUTER SCIENCE	CSC-502C	2019-20	<b>B.Sc.(MPCS)</b>
SEMESTER – V	PAPEI	R – VI	Max. Marks 50
Lab List S No. of Hours per week: 2 <u>M</u>	SOFTWARE ENG External: 25	GNEERING Internal	Pass Marks 2 : 25 Cred
1. Objective of an ATM Syste	m. 2.	Use-case Diagr	am of an ATM System
3. Class Diagram of an ATM S	System 4.	Sequence Diag	ram of an ATM System
5. Activity Diagram of an ATI	M System 6	. State Diagram	of an ATM System
7. Deployment Diagram of an	ATM System 8	. ER Diagram of	f an ATM System
orary management System			
1. Objective of Library manag	gement System.	2. Use-case D	iagram of Library manage
<ol> <li>Class Diagram of Library m nanagement</li> </ol>	nanagement Syster	n 4. Sequence	Diagram of Library
5. Activity Diagram of Library	y management Sys	tem 6. State Di	agram of Library manage
7. Deployment Diagram of Lil	orary management	System 8. ER D	Diagram of Library manag
rcode Reader 1. Objective of Barcode Reade 3. Class Diagram of Barcode I 5. Activity Diagram of Barcod 7. Deployment Diagram of Ba	er 2 Reader 4 le Reader 6. rcode Reader 8.	. Use-case Diag . Sequence Diag State Diagram of ER Diagram of	ram of Barcode Reader gram of Barcode Reader of Barcode Reader Barcode Reader
1. Objective of Safe Home System	stem.	2. Use-cas	e Diagram of Safe Home
System 3. Class Diagram of Safe Hom System	ne System	4. Sequence	e Diagram of Safe Home
5. Activity Diagram of Safe H 7. Deployment Diagram of Sa	ome System fe Home System	6. State Di 8. ER Diag	agram of Safe Home Syst gram of Safe Home Syster
l <u>ine Book Store System</u> 1. Objective of Online Book S System	tore System 2.	Use-case Diagr	am of Online Book Store
3. Class Diagram of Online Bo	ook Store System	4. Sequence Dia	gram of Online Book Stor
5. Activity Diagram of Online	Book Store Syste	m 6. State Diagr	am of Online Book Store

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P., India. (With Effect from Academic Year 2018-'19)

	COMPUTER SCIENCE	CCSC 505C	2019-20	B.Com.(C.A.)	
SEM	IESTER – V	PAPER – V		Max. Marks	75
<u>Syllab</u>	us	PROGMAMMINO	G IN C		
<u>NO (</u>	<u>)f Hours: 5</u>	No Of Credits:	3	Pass N	Aarks
30					

#### **Unit- I: Introduction to Algorithms and Programming Languages:** 12 Hrs

Algorithm – Key features of Algorithms – Some more Algorithms – Flow Charts. Introduction to C: Structure of C Program – Writing the first C Program – File used in C Program – Compiling and Executing C Programs Using Comments - Keywords - Identifiers - Basic Data Types in C -Variables Constants - I/O Statements in C- Operators in C- Programming Examples - Type Conversion and Type Casting

#### **Unit-II: Decision Control and Looping Statements**

Introduction to Decision Control Statements - Conditional Branching Statements - Iterative Statements – Nested Loops – Break and Continue Statement – Go to Statement

#### **Unit- III: Functions**

Introduction – using functions – Function declaration/ prototype – Function definition – function call – return statement – Passing parameters – Scope of variables – Storage Classes – Recursive function

#### **Unit-IV: Arrays**

Introduction – Declaration of Arrays – Accessing elements of the Array – Storing Values in Array Calculating the length of the Array – Operations on Array – one dimensional array for inter-function communication – Two dimensional Arrays –Operations on Two Dimensional Arrays

**Strings:** Introduction String and Character functions

#### **Unit-V: Pointers:**

Understanding Computer Memory – Introduction to Pointers – declaring Pointer Variables Passing Arguments to Functions using Pointer.

Structure, Union, and Enumerated Data Types: Introduction - Nested Structures - Unions -Enumerated Data Types.

#### **Reference Books:**

1. Reema Thareja, Introduction to C programming, Oxford University Press.

2. E Balagurusamy, Computing Fundamentals & C Programming – Tata McGraw-Hill, 2008. 3. Ashok N Kamthane, Programming with ANSI and Turbo C, Pearson Publisher, 2002. 4. Henry Mulish & Hubert L.Coo Reema Thareja: The Spirit of C: An Introduction to Modern Programming, Jaico Publishing House, 1996.

#### 15

#### 12 Hrs

12 Hrs

12 Hrs

#### 12 Hrs

COMPUTER SCIENCE	<b>CCSC 505C</b>	2019-20	B.Com.(C.A.)
MESTER – V	PAPER – V		Max. Marks 7
el Paper	PROGMAMMIN	G IN C	
Answer <b>FIVE</b> Ouestions. I	<u>Section- A</u> Each Ouestion carries <b>F</b>	<b>IVE</b> Marks.	5*5=25M
1. Write a short note on A	lgorithm?		
2. Explain data types in C	?		
3. Explain Jump Statemer	nts?		
4. Write a short note on 'i	f'- statements?		
5. Explain Call by Value	and Call by Reference		
<ol> <li>Describe recursive fund</li> <li>Evaluin one dimension</li> </ol>	ction with an example?		
<ol> <li>Explain one dimension</li> <li>Write about pointers</li> </ol>	ai array with example?		
8. Write about pointers			
Answer <b><u>FIVE</u></b> the Questions	<u>Section- B</u> Each Question carries	<b>TEN</b> Marks	5*10=50M
9. Explain different types	of programming langua	ges?	
10. Explain about different	Categories of Operator	s in 'C'?	
11. Explain Decision Maki	ng Looping statements	with exampl	es?
12. Explain different categories	ories of functions?		
13. Explain about Storage	Classes?		
14. Write about two dimen	sion arrays? Give an exa	ample progr	am?
15. Explain briefly about S	tring function in 'C'?		

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

	COMPUTER SCIENC	CE	CCSC 505C		2019-20	B.Com.(C.A.)
SEM	ESTER – V	PAP	PER - V	Ma	ax. Marks 7	5 Pass Marks 30

#### Guidelines for paper setting 'PROGMAMMING IN C'

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-18)

COMPUTER SCIE	NCE	CCSC-505P	•	2019-20	B.Com.(C.A.)
SEMESTER – V	PA	PER – III	Max	. Marks 50	Pass Marks 25
LABLIST	PRO	GRAMMING IN	С		
No. of Hours per we	ek: 2	External: 25		Internal: 25	Credits: 2

- 1. Find out the given number is perfect number or not using c program.
- 2. Write a C program to check whether the given number is Armstrong or not.
- 3. Write a program to find roots of quadratic equation.

Root  $1 = (-b + \text{sqrt} (b^2 - 4ac) / 2a$  Root  $2 = (-b - \text{sqrt} (b^2 - 4ac) / 2a$ 

- 4. Write a C program to find the sum of individual digits of a positive integer.
- 5. Write a C program to print the Fibonacci series
- 6. Write a C program to generate the first n terms of the Fibonacci sequence.
- 7. Write a program to find factorial of a given number using recursion
- 8. Write a program to perform all arithmetic operations using switch case
- 9. Write a C program to generate all the prime numbers between 1 and n, where n is a Value supplied by the user.
- 10. Write a C program to find both the largest and smallest number in a list of integers.
- 11. Write a C program that uses functions to perform the following:
  - a. Addition of Two Matrices
  - b. Multiplication of Two Matrices
- 12. Write a program to perform various string operations
- 13. Write a program to swap two numbers using pointers.
- 14. Write C program that implements searching of given item in a given list
- 15. Write a C program to sort a given list of integers in ascending order

	AG & SG SIDDHARTHA	COLLEGE OF ART	TS AND SC	IENCES - VUYY	JRU.
	An Autonomous college w (With F	ithin the jurisdiction Effect from Academic	of Krishna Year 2018	University A.P, Ir -'19)	ıdia.
	COMPUTER SCIENCE	<b>CCSC 506C</b>	2019-20	B.Com.(C.A.)	
SEM	IESTER – V	PAPER – VI		Max. Marks	s 75
Syllab	us DA	ATA BASE MANAG	EMENT SY	YSTEMS	
NO (	<u> Df Hours: 5</u>	No Of Credits:	<u>3</u>	Pas	s Marks 30
Cours	e Objective: Design & dev	elop database for large	volumes &	varieties of data wi	th optimized
data pi	ocessing techniques.				-
Unit –	1: Database Systems Introd	luction			12Hrs
Datab	ase Systems: Introducing the c	latabase and DBMS, V	Vhy the data	abase is important,	
Histor	ical Roots: Files and File Sy	vstems, Problems with	File Syste	m, Data Manageme	ent, Database
Systen	ns. Data Models: The impo	tance of Data models	s, Data Mo	del Basic Building	Blocks, The
evalua	tion of Data Models.		,	U	,
Unit -	II: Relational Database & I	<b>Data Modelling</b>			12 Hrs
The R	elational Database Model:	A logical view of D	ata, Keys,	Integrity Rules, R	elational Set
Operat	ors, Indexes, Codd's relationa	al database rules. Entit	y Relationsl	hip Model: The ER	Model
Advan	ced Data Modelling: The Ext	ended Entity Relations	hip Model,	Entity clustering.	
Unit-I	II: Normalization and Data	base Design			14 Hrs
Norma	lization of database tables:	Database Tables and I	Normalizati	on, The need for N	ormalization,
The N	Iormalization Process, High	level Normal Forma	s, Normaliz	ation and databas	e design, de
norma	lization.				
Unit-I	V: Structured Query Langu	lage			12 Hrs
Introd	uction to SQL: Data Definit	tion Commands, Data	Manipulat	ion Commands, Se	elect queries,
Advan	ced Data Definition Comman	ds, Advanced Select q	ueries, Virtu	ual Tables, SQL Joi	n Operators,
Unit-V	': Procedural SQL				10 Hrs
Introd	uction to PL/SQL : Triggers, S	Stored Procedures, Pl/	SQL Stored	Functions	
Prescr	ibed Text Book:				
1.	Peter Rob, Carlos Coronel	, Database Systems I	Design, Imp	lementation and N	/Ianagement,
	Seventh Edition, Thomson	(2007).			
Refere	nce Books:				
3.	Elimasri / Navathe, Funda Wesley	mentals of Database	Systems,	Fifth Edition, Pear	son Addison
4.	Raman A Mata – Toledo/I	Panline K Cushman,	Database N	Ianagement System	ıs, Schaum's
5	C I Date A Kannan S Swa	mynathan An Introdu	uction to D	latabase Systems I	Fight edition
5.	Pearson Education (2006)			atabase Systems, I	Signi cutton,
6	"DatabaseSystemConcents"	hy AbrahamSilberg	chatz He	nry Korth and	S Sudarshan
0.	McGrawhill	by Moranamonoers	, enal2, 110	in y Rorui, and	5.5udarshan,
7.	Atul Kahate, Introduction to	Database Managemen	t Systems, l	Pearson Education (	2006).
Studen 1. Crea 2. Crea	nt Activity: ate your college database for p ate faculty database of your co	blacement purpose.	mic perform	nance scores	

# 19

COMPUTER SCIENCE	<b>CCSC 506C</b>	2019-20	B.Com.(C	.A.)
CMESTER – V	PAPER – VI		Max.	Marks 75
odel PaperDAOf Hourse 5	TA BASE MANA	GEMENT S	YSTEMS	Doog Morks 3
<u>5 61 110urs. 5</u>	No of creates	<u></u>		
Answer any <b><u>FIVE</u></b> Questions. E	Section-A Each question carrie	s <b>FIVE</b> Mark	KS	4x5=25N
1. Explain the Component	nts of Database Syst	tem.		
2. Explain Entity Relatio	nship Model .			
3. Write about Relational	l Set Operators.			
4. Explain Integrity rules	•			
5. Describe BCNF.				
6. Write about D Normal	ization.			
7. Write about Special Fu	unctions.			
8. Explain Stored Proced	ures.			
Answer on EUE Questions	Section-B	o <b>TEN</b> I Morda	~	5¥10-50
Answei any <b><u>FIVE</u></b> Questions. E			8	5A10=50
9. What is File? Explain	the problems with I	File system		
10. Explain any three diffe	erent Data Models			
11. Explain E.F.CODDs'	rules.			
12. Explain Extended Enti	ity Relationship Mo	del.		
13. Explain the concept of	Normal Forms.			
14. Explain different join	operators			
15. Explain DDL and DM	L commands.			
16. Explain about triggers				

#### An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

	COMPUTER SCIE	NCE	CCSC 50	6C	2019-20	B.Com.(C.A.)
SEM	ESTER – V	PAP	ER – VI	Max.	Marks 75	Pass Marks 30

#### Guidelines for paper setting 'DATA BASE MANAGEMENT SYSTEMS'

#### Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	(With	Effect from Acaden	nic Year 2018-'19)		
	COMPUTER SCIENCE	CCSC-505P	2019-20	B.Sc.(MPCS)	
SE	MESTER – V	PAPER –	IV	Max. Marks 50	
La	b List DATA BASE	MANAGEMENT	SYSTEMS	Pass Marks 25	
No	. of Hours per week: 2	External: 25	Internal: 25	Credits	: 2
1.	Creation of college database	and establish relati	onships between ta	ables	
2.	Explain various data type in	Oracle.			
3.	Show the structure of the Em	np table.			
4.	Show the structure of the DE	EPT table.			
~					

- 5. Explain the syntax of SELECT statement.
- 6. Create a query to display the name, job, hiredate and employee number from emp table.
- 7. Create a query to display unique jobs from the emp table.
- 8. Create a query to display the empno as EMP#, ename as EMPLOYEE and Hire\_date from emp.
- 9. Create a query to display all the data from the EMP table. Separate each column by a comma and name the column THE\_OUTPUT.
- 10. Create a query to display the name and salary of employees earning more than 2850.
- 11. Create a query to display the name and salary for all employees whose salary is not in the range of 1500 and 2850.
- 12. Display the employee name, job and start date of employees hired between February 20 ,1981 and May 1, 1981. Order the query in ascending order of start date
- 13. Display the employee name and department number of all the employees in departments 10 and 30 in alphabetical order by name.
- List the name and salary of employees who earn more than 1500 & are in department 10 or 30.
- 15. Display the name, salary and commissions and sort data in descending order of salary and commission.
- 16. Display the name and job title of all employees who do not have a manager.
- 17. Display the name, job and salary for all employees whose job is Clerk or Analyst and their salary is not equal to 1000, 3000 or 5000.
- 18. Display the names of all employees where the third letter of their name is an 'A'.
- 19. Display the names of all employees who have two 'L's in their name and are in department 30 or their manager is 7782.
- 20. Display the name, salary and commission for all employees whose commission amount is grater than their salary increased by 10%.
- 21. Explain all the character functions.
- 22. Explain all the number functions.
- 23. Explain all the Date functions.

Create Student database using the following tables.

STUDENT: Sno : primary key, number Sname : NOT NULL, varchar2 Address: Varchar2 COURSE: Sno : Foreign key. Course Name : varchar2 Oueries:

- 1. Alter table by adding a column fees in table COURSE.
- 2. Alter table by modifying the address to VARCHAR2(20)

23

3. Create a view on which the students who joined in one course only.

#### PL/SQL.

- 1. Write A Pl/Sql Program To Swap Two Numbers Without Using Third Variable.
- 2. Write A Pl/Sql Program To Generate Multiplication Tables For Numbers 2,4 And 6
- **3.** Write A Pl/Sql Program To Display Sum Of Even Numbers And Sum Of Odd Numbers In The Given Range.
- 4. Write A Pl/Sql Program To Check The Given Number Is Pollinndrome Or Not.
- 5. Write A Pl/Sql Program To Display Top 10 Rows In Emp Table Based On Their Job And Salary.

#### **Reference Books:**

- 1. Oracle Pl/Sql By Example. Benjamin Rosenzweig, Elena Silvestrova, Pearsoneducation 3rd Edition
- 2. Sql & Pl/Sql For Oracle 10g, Black Book, Dr.P.S. Deshpande

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

,			/	
COMPUTER SCIENCE	CCSC-507C	2019-20	B.Com.(CA)	
ESTER – V	PAPER – VIII	[	Max. Marks	75
<u>ous</u> W	EB TECHNOLOG	IES		
of Hours: 5	<u>No of Credi</u>	<u>ts: 3</u>	Pass Mar	:ks 30
	COMPUTER SCIENCE IESTER – V bus W Of Hours: 5	COMPUTER SCIENCECCSC-507CIESTER – VPAPER – VIIIbusWEB TECHNOLOGOf Hours: 5No of Credit	COMPUTER SCIENCECCSC-507C2019-20IESTER – VPAPER – VIIIbusWEB TECHNOLOGIESOf Hours: 5No of Credits: 3	COMPUTER SCIENCECCSC-507C2019-20B.Com.(CA)IESTER – VPAPER – VIIIMax. MarksbusWEB TECHNOLOGIESof Hours: 5No of Credits: 3Pass Marks

#### **Unit -I** Introduction to XHTML:

Introduction to HTML, Basic html, Document body text, Hyper links, Adding more formatting Lists, Tables, Images, Multimedia Objects, Frames, Forms and XHTML.

#### Unit- II: CSS:

Cascading Style Sheets: Introduction, Defining your own styles, properties and values in styles, Formatting blocks of information, Layers.

Java Script: java Script, the basics, Variables, String Manipulations, Mathematical functions, Statements, Operators, Arrays, Functions.

#### Unit -III: Objects in Java Script & Dynamic HTML with Java Script

*Objects in Java Script:* Data and objects in java script, Regular expressions, Exception Handling, Built in objects, Events.

*Dynamic HTML with Java Script:* Data validation, Opening a new window, Messages and Confirmations, The status bar, Writing to a different frame, Rollover buttons, Moving images, Multiple pages in a single download, A text-only menu system, Floating logos.

#### Unit -IV: XML Defining Data for Web Applications

*XML:* Introduction to XML, Basic XML, document type definition, XML Schema, Document object model, presenting XML, Using XML parser.

#### Unit -V: JSP:

JSP Lifecycle, Basic Syntax, EL (Expression Language), EL Syntax, Using EL Variables

#### **Prescribed Books:**

#### 1. Chris Bates, Web Programming Building Internet Application, Second Edition, Wiley

2.Head First Servlets and JSP 2<sup>nd</sup> Edition, Bryan Basham, Kathy Sierra

2. Uttam Kumar Roy, Web Technologies from Oxford University Press
| COMPUT           | ER SCIENCE               | CCSC-507C                               | 2019-20                | B.Sc.(MPCs)        |
|------------------|--------------------------|---|------------------------|--------------------|
| MESTER – V       | 7                        | PAPER – VIII                            |                        | Max. Marks         |
| el Paper         | WE                       | B TECHNOLOG                             | IES                    |                    |
| of Credits: 3    |                          | Pass Mar                                | ks 30                  |                    |
| Answer <b>FI</b> | VE Questions. Ea         | <u>Section-4</u><br>ch Question carries | <u>4</u><br>FIVE Marks | . 5 X 5=25M        |
|                  | 1. Write about s         | structure of HTML                       | Document wi            | th an example      |
| ,                | 2. Explain about         | lists in HTML                           |                        |                    |
|                  | 3. Write about p         | roperties used in St                    | yle Sheet              |                    |
| 2                | 4. Write about a         | rrays in Java Script                    |                        |                    |
| :                | 5. Describe Data         | a Object                                |                        |                    |
| (                | 6. Write about R         | collover buttons                        |                        |                    |
| ,                | 7. Describe XM           | L Elements                              |                        |                    |
| \$               | 8. Write the synt        | tax of EL and EL va                     | ariables               |                    |
|                  |                          | Section-B                               |                        |                    |
| Answer <u>FI</u> | <u>VE Q</u> uestions. Ea | ch Question carries                     | TEN Marks.             | 5 X 10=50M         |
| (                | 9. Explain about         | hyper links? Write                      | about how to           | link another pages |
|                  | 10. What is Form         | ? Explain about for                     | ms with exam           | ples               |
|                  | 11. What is CSS?         | How to design Cas                       | scading style s        | sheet              |
|                  | 12. Explain about        | Mathematical Fund                       | ctions                 |                    |
|                  | 13. Explain about        | Regular Expressio                       | ns                     |                    |
|                  | 14. Write about D        | Data validations in 1                   | DHTML                  |                    |
|                  | 15. Explain about        | Document Object                         | Model                  |                    |
|                  | 16. Explain about        | JSP Lifecycle with                      | ı neat diagram         | l                  |

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

	COMPUTER SCIEN	ICE	CCSC-507C	2019-20	B.Sc.(1	MPCs)
SEM	ESTER – V	PAPI	ER – VIII	Max. Marks	75	Pass Marks 30

Guidelines for paper setting 'WEB TECHNOLOGIES'

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	1	2
Unit-4	2	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P. India. (With Effect from Academic Year 2019-'20)

С	OMPUTER SC	IENCE	CSC-30	01C	2019-20	B.Sc.(MPCs	s, MCCs.)
SEMES	TER – III	PAPE	R – III	Max.	Marks 70	Pass N	Iarks 28
Syllabus	<b>OBJECT O</b>	RIENTEI	D PROGRA	AMMI	NG USING JA	AVA Tota	al Hrs: 60
NO. Of. H	Iours: 4		Credits: 3	6			

**UNIT-I** 

Fundamentals of Object – Oriented Programming: Introduction, Object Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Applications of OOP, Java features: Overview of Java Language: Introduction, Simple Java program structure, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments. Constants, Variables & Data Types: Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Symbolic Constants, Type casting, Getting Value of Variables, Standard Default values: **Operators & Expressions**. 15 Hrs

### UNIT-II

Decision Making & Branching: Introduction, Decision making with if statement, Simple if statement, if-Else statement, Nesting of if-else statements, the else if ladder, the switch statement, the conditional operator. Looping: Introduction, While statement, do-while statement, for statement, Jumps in loops. Classes, Objects & Methods: Introduction, Defining a class, Adding variables, Adding methods, Creating objects, Accessing class members, Constructors, Method overloading, Static members, Nesting of methods; 10 Hrs

### **UNIT-III**

Inheritance: Extending a Class, Overriding Methods, Final Variables and Methods, Final Classes, Abstract Methods and Classes; Arrays, Strings And Vectors: Arrays, One-dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Vectors, Wrapper classes; Interfaces: Multiple Inheritance: Introduction, Defining interfaces, Extending interfaces, Implementing interfaces, Assessing interface variables;

### **UNIT-IV**

Multithreaded Programming: Introduction, Creating Threads, Extending the Threads, Stopping and Blocking a Thread, Lifecycle of a Thread, Using Thread Methods, Thread Exceptions, Thread Priority, Synchronization, Implementing the 'Runnable' Interface.

Managing Errors And Exceptions: Types of errors: Compile-time errors, Runtime errors, Exceptions, Exception handling, Multiple Catch Statements, Using finally statement,

### **UNIT-V**

Applet Programming: local and remote applets, Applets and Applications, Building Applet code, Applet Life cycle: Initialization state, Running state, Idle or stopped state, Dead state, Display state. Packages: Introduction, Java API Packages, Using System Packages, Naming conventions, Creating Packages, Accessing a Package, using a Package. Managing Input/ Output Files in Java: Introduction, Concept of Streams, Stream classes, Byte Stream Classes, Input Stream Classes, Output Stream Classes, Character Stream classes: Reader stream classes, Writer Stream classes, Using Streams:

# **Prescribed Text Book:**

1. E.Balaguruswamy, Programmingwith JAVA, A primer, 3e, TATA McGraw-Hill Company. **Reference Books** 

- 1. Programming In Java By Sachin Malhotra And Saurabh Choudhary From Oxford University Press
- 2. Object Oriented Programming Through Java by P. Radha Krishna, Universities Press
- 3. John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series,
- 4. Deitel & Deitel. Java TM: How to Program, PHI (2007)
- 5. Java Programming: From Problem Analysis to Program Design- D.S Mallik

### 10 Hrs

10 Hrs

# 15Hrs

An Autonomous college with in the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2019-'20)

	,			,		
COMPUTER SCI	ENCE	CSC-301C	2019-'20	B.Sc.(M	PCs, MCCs.)	
SEMESTER – III	PAPE	CR – III	Max. M	arks 70	Pass Marks 28	
MODEL PAPER NO Of Hours: 4	MODEL PAPEROBJECT ORIENTED PROGRAMMING UNO Of Hours: 4Credits: 3					
Answer <u>FOUR</u> Qu	estions. I	<u>Section-</u> Each Question car	<u>A</u> rries FIVE Ma	rks.	4*5=20M	
1. Explain the struct	ure of a ja	ava program?				
2. Explain different	data types	s in java?				
3. Explain about Cor	nstructors	?				
4. Differences betwe	en arrays	and vectors?				
5. Explain about Exc	ception ha	andling?				
6. Explain the applet	life cycle	e?				
		Section-	<u>B</u>			
nswer <u>FIVE</u> the Questio	ns. Each	Question carries	TEN Marks		5*10=50M	
7. Explain the Conce	epts of Ob	oject Oriented Prog	gramming?			
8. Explain java Features?						
9. Explain Looping	statement	s with example				
10. Explain Method o	verloadin	g with an example	e program			

- 11. Explain about inheritance
- 12. Explain the concept of interface?
- 13. Explain life cycle of a thread?
- 14. Explain about Byte Stream Classes?

An Autonomous college with in the jurisdiction of Krishna University A.P, India. (With Effect Form Academic Year 2019-'20)

COMPUTER SCIENCE	CSC-301C	2019-'20	B.Sc.(MPCs., MCCs.)
SEMESTER – III	PAPER – III		Max. Marks 70

# Guidelines for paper setting 'OBJECT ORIENTED PROGRAMMING USING JAVA'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college with in the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2019-'20)

COMPUTER SCIENC	E CSC-301P	2019-'20	B.Sc.(MPCs, MCCs	.)
SEMESTER – III	PAP	PAPER – III		s 50
<u>Lab List</u> OBJECT OR No. of Hours per week:	IENTED PROGRAM 2 External: 25	MMING USIN Intern	NG JAVA Pass Mark nal: 25 Credits:	ks 25 : 2

- 1. Write a program to perform various String Operations
- 2. Write a program to print the given number is Armstrong or not?
- 3. Prompt for the cost and selling price of an article and display the profit (or) loss
- 4. Write a program to print the numbers given by command line arguments
- 5. Write a program on class and object in java
- 6. Illustrate the method overriding in JAVA
- 7. Write a program to find the Simple Interest using Multilevel Inheritance
- 8. Write a program to display matrix multiplication.
- 9. Write a program to implement Exception handling
- 10. Write a program to create packages in Java
- 11. Write a program on interface in java
- 12. Write a program to Create Multiple Threads in Java
- 13. Write a program to Write Applets to draw the various polygons
- 14. Write a program to assign priorities to threads in java
- 15. Write an Applet Program to design a Simple Calculator.

An Autonomous college with in the jurisdiction of Krishna University A.P, India.

-	(With Effect from Academic Year 2019-'20)						
	COMPUTE	<b>CR SCIENCE</b>	ICT-II-301C	2019-'20	B.A, B.Com, B.Sc.		
SEM	ESTER – III	PAPER – II	Max. Marks 50	Pass Marl	xs 20 Total Hrs 30	)	
Syllał	ous	Internet Fund	lamentals and Web	Tools NO.	Of Hrs: 2 Credits: 2	2	
Unit-]	[:					6Hrs	
Fund	amentals of L	nternet : Netwo	rking Concepts, Dat	a Communica	tion – Types of Networ	rking,	
Intern	et and its Serv	ices, Internet Ad	ddressing – Internet	Applications -	- Computer Viruses and	d its types	
– Brov	wser – Types o	f Browsers.	U		1		
Unit-	<b>I</b> :					6Hrs	
Interi	net application	ns: Using Intern	et Explorer, Standar	d Internet Exp	olorer Buttons, Entering	g a Web	
Site A	ddress, Search	ning the Internet	- Introduction to Se	ocial Networki	ng: twitter, tumbler, Li	inkedIn,	
face b	ook, flicker, S	kype, yelp, vim	eo, yahoo, Google+,	YouTube, Wl	hatsApp, etc.		
Unit-	<b>II</b> :					6Hrs	
<b>E-ma</b> i Addre	<b>il :</b> Definition o sses, Domain	of E-mail - Adva Names, Mailers	antages and Disadva , Message Compone	ntages – User- ents, Message	Ids, Passwords, Email Composition, Mail		

Management, Email Inner Workings.

### Unit IV:

WWW- Web Applications, Web Terminologies, Web Browsers, URL – Components of URL, Searching WWW – Search Engines and Examples

### Unit-V :

**Basic HTML:** Basic HTML – Web Terminology – Structure of a HTML Document – HTML, Head and Body tags – Semantic and Syntactic Tags – HR, Heading, Font, Image and Anchor Tags – Different types of Lists using tags – Table Tags, Image formats – Creation of simple HTML Documents.

### **Reference Books :**

1. In-line/On-line : Fundamentals of the Internet and the World Wide Web, 2/e - by Raymond Greenlaw and Ellen Hepp, Publishers : TMH

31

### **6Hrs**

6Hrs

An Autonomous college with in the jurisdiction of Krishna University A.P, India.

(With Effect Form Academic Year 2019-'20)

COMPUTER SCIENCE		ICT-II-301C	2019-'20	B.A, B.Com, B.Sc.	
SEMESTER – III	PAPER	R – II Max.Marks	50 Pass Ma	rks: 20	Total: 30 Hrs

# Modal Paper: Internet Fundamentals and Web Tools NO. Of Hrs: 2 Credits: 2

### Section- A

# Answer <u>FOUR</u> Questions. Each Question carries FIVE marks. 4X5=20M

- 1. Explain types of Browsers?
- 2. Explain Internet Applications.
- 3. Write a short note on Internet Explorer?
- 4. Explain User Id and Password of e-mail?
- 5. Explain Advantages and disadvantages of electronic mail.4
- 6. Explain about WWW?
- 7. Explain briefly about web application.
- 8. Explain Head and Body tags in HTML Document?

### Section-B

### Answer Any <u>THREE</u> Questions. Each Question carries TEN Marks. 3×10=30M

- 9. Explain types of Networking?
- 10. Explain Internet Services?
- 11. Explain any 10 Social Net Working Sites
- 12. Explain Message Composition.
- 13. Explain different types of Search Engines.
- 14. Explain different lists in HTML.

An Autonomous college with in the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2019-'20)

COMPUTER	<b>SCIENCE</b>	CCSC-303C	2019-'20	B.Com. (C.A)
SEMESTER – III	PAPER – I	II Max. Marks	5 70 Pass Mai	rks 28 Total Hrs: 60
<u>Syllabus</u>	Office Auton	nation Tools	NO. Of. Hour	s: 5 Credits: 4

### Unit-I:

### 12Hrs

**MS-Excel:** features of Ms-Excel, Parts of MS-Excel window, entering and editing data in worksheet, number formatting in excel, different cell references, how to enter and edit formula in excel, auto fill and custom fill, printing options.

### Unit-II:

12

**Hrs Formatting options:** Different formatting options, change row height, formulae and Functions, **Functions:** Meaning and advantages of functions, different types of functions available in Excel. **Unit-III:** 

### 12Hrs

**Charts:** Different types of charts, Parts of chart, chart creation using wizard, chart operations, data maps, graphs, data sorting, filtering. Excel sub totals, scenarios, what-if analysis.

**Macro:** Meaning and advantages of Macros, creation, editing and deletion of macros - Creating a macro, how to run, how to delete a macro.

### Unit-IV:

### 12Hrs

**MS** Access: Creating a Simple Database and Tables: Features of Ms-Access, Creating a Database, Parts of Access. Tables: table creation using design view, table wizard, data sheet view, import table, link table. Forms: The Form Wizard, design view, columnar, tabular, data sheet, chart wizard. Unit- V:

### 12Hrs

**Finding, Sorting and Displaying Data:** Queries and Dynasts, Creating and using select queries, Returning to the Query Design, Multi-level sorts, Finding incomplete matches, showing All records after a Query, saving queries - Crosstab Queries. **Printing Reports:** Form and Database Printing..

## **Reference Books:**

1.Ron Mansfield, Working in Microsoft Office, Tata McGraw Hill(2008)

2.Ed Bott, Woody Leonhard, Using Microsoft Office 2007, Pearson Education(2007)

3. Sanjay Saxsena, Microsoft Office, 4. Microsoft Office, BPB Publications

	AG & SG SI An Autono	DDHARTHA	<b>COLLEGE OF</b> within the jurisdic	ARTS AND SC	IENCES - VUYYURU. University A.P. India.	
		(With	Effect from Acade	mic Year 2019-'	20)	
	COMPUTER	SCIENCE	CCSC-303C	2019-'20	<b>B.Com.</b> (C.A)	
SEMI	ESTER – III	PAPER – I	II Max. Marl	ks 70 Pass Ma	rks 28 Total Hrs: 60	
<u>Mo</u>	del Paper	Office Au	tomation Tools	NC	Of Hours: 5 Credits: 4	
			<b>Section</b>	<u>- A</u>		
Answe	er <u>FOUR</u> Ques	stions. Each (	Juestion carries F	IVE Marks.	4*5=20M	
1.	Explain Featu	res of Excel?				
2.	What are adva	intages of Fun	ctions?			
3.	Explain what	is sorting?				
4.	Explain how t	o delete Macr	o?			
5.	Write any 5 F	eatures of Acc	cess?			
6.	Describe Quer	ry used in MS	-Access?			
			Section	<u>- B</u>		
Answe	er <u>FIVE</u> the Q	uestions. Eac	h Question carrie	s TEN Marks.	5*10=50M	
7.	Explain Parts	of Excel Shee	t with neat Diagram	n.		
8.	8. Explain AutoFill and Custom Fill Options in Excel.					
9.	9. Explain different types of Functions available.					
10.	Explain differ	rent Formattin	g options.			
11.	What is Chart	? Explain diff	erent types of Chai	ts.		
12.	What is Macr	o? Explain Cı	reating and Editing	of Macro.		
13.	What is Form?	Explain Creatii	ng Form using Form	Wizard.		

14. Explain How to Create a Query, Showing, all records after Query and Saving Query.

An Autonomous college with in the jurisdiction of Krishna University A.P, India. (With Effect Form Academic Year 2019-'20)

COMPUTER SCIENCE	ICT-II-301	2019-'20	B.A, B.Com, B.Sc.
SEMESTER – III	PAPER – II		Max. Marks 50

# Guidelines for paper setting 'INTERNET FUNDAMENTALS AND WEB TOOLS'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	1
Unit-3	2	1
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	(With Effect from Academic Year 2019-'20)					
	COMPUTER	SCIENCE	CCSC-303P	2019-'20	B.Com. (C.A)	
SE	MESTER – III	PAPER – I	II Max. Marks	50 Pass Ma	rks 20 Tota	l Hrs: 30
Lał	o list	Office Auto	mation Tools			

### Ms-Word

- 1. Create a vesting Card
- 2. Create a template for organization using Header & Footer
- 3. Mail merge Procedure

### Ms-Excel

1. Create an electronic spreadsheet in which you enter the following decimal numbers and convert into Octal, Hexadecimal and Binary numbers vice versa. Decimal Numbers: 35, 68, 95, 165, 225, 355, 375, 465. Binary Numbers: 101, 1101, 111011, 10001, 110011001, 111011111.

2. The ABC Company shows the sales of different products for 5 years. Create column chart, 3D-column and Bar chart for the following data
YEAR PRODUCT-1 PRODUCT-2 PRODUCT-3 PRODUCT-4
2003 1000 800 900 1000 2004 800 80 500 900 2005 1200 190 400 800 2006 400 200 300 1000
2007 1800 400 400 1200

3. Create a suitable examination data base and find the sum of the marks(total) of each student and respective class secured by the student rules:
Pass if marks in each subject >=35
Distinction if average>=75
First class if average>=60 but <75</li>
Second class if average>=50 but <60</li>
Third class if average>=35 but <50</li>
Fail if marks in any subject is <35</li>
Display average marks of the class, subject wise and pass percentage

4. Create an electronic spread sheet in which you enter date and time functions in Excel

5. Create a electronic spread sheet in statistical and mathematical functions in Excel

### **MS-PowerPoint**

1. Make a Power point presentation on your strengths, weaknesses, hobbies, factors that waste your time.

2. Make a Power point presentation to represent your College profile.

3. Make a Power point presentation of all the details of the books that you had studied in B.Sc. First Year.

4. Create a Presentation without Animation.

**MS-ACCESS** 

1. Create a database using MS-ACCESS with at least 5 records table1 structure: register number , name, dob, gender, class table2 structure: register number m1 m2 m3 m4 m5 total maintain the relationship between two tables with register number as a primary key and answer the following quarries: show the list of students with the following fields as one query register number name gender total marks

2. Maintain the relationship between above two tables with register number as a primary key and answer the following reports: reports must have following columns report1 with register number, name, marks of all subjects and 90 hrs (3 hrs/ week) computer science 10 of 44 total report2 with register number, total , percentage.

3. Create a database using ms-access with at least 5 records table1 structure: emp-code emp-name age gender dob table2 structure: emp-code basic-pay maintain the relationship between two tables with emp-code as a primary key generate the following reports: report1: emp-code emp-name basic-pay da,hra gross-salary report2: emp-code emp-name age gender gross-salary

An Autonomous college with in the jurisdiction of Krishna University A.P. India.

	(With Effect from Academic Year 2019-'20)							
	COMPUTE	R SCIENCE	ICT-II-301C	2019-'20	B.A, B.Com, B.Sc.			
SEM	ESTER – III	PAPER – II	Max. Marks 50	Pass Marl	xs 20 Total Hrs 30			
Syllal	ous	Internet Fund	lamentals and Web	Tools NO.	Of Hrs: 2 Credits: 2			
Unit-	[:					6Hr:		
Fund	amentals of I	nternet : Netwo	rking Concepts, Dat	a Communica	tion – Types of Networki	ng,		

Internet and its Services, Internet Addressing – Internet Applications – Computer Viruses and its types - Browser - Types of Browsers. **6Hrs** 

### **Unit-II:**

Internet applications: Using Internet Explorer, Standard Internet Explorer Buttons, Entering a Web Site Address, Searching the Internet – Introduction to Social Networking: twitter, tumbler, LinkedIn, face book, flicker, Skype, yelp, vimeo, yahoo, Google+, YouTube, WhatsApp, etc. Unit-III : **6Hrs** 

E-mail :Definition of E-mail - Advantages and Disadvantages – User-Ids, Passwords, Email Addresses, Domain Names, Mailers, Message Components, Message Composition, Mail Management, Email Inner Workings.

### Unit IV:

WWW- Web Applications, Web Terminologies, Web Browsers, URL - Components of URL, Searching WWW – Search Engines and Examples

### Unit-V:

**Basic HTML:** Basic HTML – Web Terminology – Structure of a HTML Document – HTML, Head and Body tags - Semantic and Syntactic Tags - HR, Heading, Font, Image and Anchor Tags -Different types of Lists using tags – Table Tags, Image formats – Creation of simple HTML Documents.

### **Reference Books :**

1. In-line/On-line : Fundamentals of the Internet and the World Wide Web, 2/e - by Raymond Greenlaw and Ellen Hepp, Publishers : TMH

### **6Hrs**

6Hrs

An Autonomous college with in the jurisdiction of Krishna University A.P, India.

(With Effect Form Academic Year 2019-'20)

COMPUTER SC	IENCE	ICT-II-301C	2019-'20	B.A, E	B.Com, B.Sc.
SEMESTER – III	PAPER	R – II Max.Marks	50 Pass Ma	rks: 20	Total: 30 Hrs

# Modal Paper: Internet Fundamentals and Web Tools NO. Of Hrs: 2 Credits: 2

### Section- A

## Answer <u>FOUR</u> Questions. Each Question carries FIVE marks. 4X5=20M

- 1. Explain types of Browsers?
- 2. Explain Internet Applications.
- 3. Write a short note on Internet Explorer?
- 4. Explain User Id and Password of e-mail?
- 5. Explain Advantages and disadvantages of electronic mail.4
- 6. Explain about WWW?
- 7. Explain briefly about web application.
- 8. Explain Head and Body tags in HTML Document?

### Section-B

### Answer Any <u>THREE</u> Questions. Each Question carries TEN Marks. 3×10=30M

- 9. Explain types of Networking?
- 10. Explain Internet Services?
- 11. Explain any 10 Social Net Working Sites
- 12. Explain Message Composition.
- 13. Explain different types of Search Engines.
- 14. Explain different lists in HTML.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2019-'20)

	(with Effect From Academic Teat 2019- 20)					
COMPUTER SCIENCE	ICT-II-301C	2019-'20	B.A, B.Com, B.Sc.			
SEMESTER – III	PA	PER – II	Max. Marks 5	0		

# Guidelines for paper setting 'INTERNET FUNDAMENTALS AND WEB TOOLS'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	1
Unit-3	2	1
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P. India. (With Effect from Academic Year 2018-'19)

C	OMPUTER S	CIENCE	CSC-302	1C	2019-20	B.Sc.	(MPCs, MCCs.)
SEMES	TER – III	PAPE	R – III	Max.	Marks 75		Pass Marks 30
Syllabus	OBJECT	ORIENTEI	D PROGRA	MMI	NG USING JA	AVA	Total Hrs: 60
NO. Of. H	lours: 4		Credits: 3				

**UNIT-I** 

Fundamentals of Object – Oriented Programming: Introduction, Object Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Applications of OOP, Java features: Overview of Java Language: Introduction, Simple Java program structure, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments. Constants, Variables & Data Types: Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Symbolic Constants, Type casting, Getting Value of Variables, Standard Default values: **Operators & Expressions**. 15 Hrs

### UNIT-II

Decision Making & Branching: Introduction, Decision making with if statement, Simple if statement, if-Else statement, Nesting of if-else statements, the else if ladder, the switch statement, the conditional operator. Looping: Introduction, While statement, do-while statement, for statement, Jumps in loops. Classes, Objects & Methods: Introduction, Defining a class, Adding variables, Adding methods, Creating objects, Accessing class members, Constructors, Method overloading, Static members, Nesting of methods; 10 Hrs

### **UNIT-III**

Inheritance: Extending a Class, Overriding Methods, Final Variables and Methods, Final

Classes, Abstract Methods and Classes; Arrays, Strings And Vectors: Arrays, One-dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Vectors, Wrapper classes; Interfaces: Multiple Inheritance: Introduction, Defining interfaces, Extending

interfaces, Implementing interfaces, Assessing interface variables;

# **UNIT-IV**

Multithreaded Programming: Introduction, Creating Threads, Extending the Threads, Stopping and Blocking a Thread, Lifecycle of a Thread, Using Thread Methods, Thread Exceptions, Thread Priority, Synchronization, Implementing the 'Runnable' Interface.

Managing Errors And Exceptions: Types of errors: Compile-time errors, Runtime errors, Exceptions, Exception handling, Multiple Catch Statements, Using finally statement,

# **UNIT-V**

Applet Programming: local and remote applets, Applets and Applications, Building Applet code, Applet Life cycle: Initialization state, Running state, Idle or stopped state, Dead state, Display state. Packages: Introduction, Java API Packages, Using System Packages, Naming

conventions, Creating Packages, Accessing a Package, using a Package. Managing Input/ Output Files in Java: Introduction, Concept of Streams, Stream classes, Byte Stream Classes, Input Stream Classes, Output Stream Classes, Character Stream classes: Reader stream classes, Writer Stream classes, Using Streams;

# **Prescribed Text Book:**

1. E.Balaguruswamy, Programmingwith JAVA, A primer, 3e, TATA McGraw-Hill Company. **Reference Books** 

- 6. Programming In Java By Sachin Malhotra And Saurabh Choudhary From Oxford University Press
- 7. Object Oriented Programming Through Java by P. Radha Krishna, Universities Press
- 8. John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series,
- 9. Deitel & Deitel. Java TM: How to Program, PHI (2007)
- 10. Java Programming: From Problem Analysis to Program Design- D.S Mallik

10 Hrs

# **10 Hrs**

15Hrs

### 41

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

COMPUTEI	R SCIENCE	CSC-301C	2019-20	B.Sc.(MPCs, MCCs.)
SEMESTER – III	PAPER – II	[	Max. Marks '	75 Pass Marks 30
MODEL PAPER NO Of Hours: 4	OBJECT (	ORIENTED PRO Credits: 3	OGRAMMIN	G USING JAVA Total Hrs: 60
Answer <u>FIVE</u>	<u>2</u> Questions. Ea	<u>Section-</u> ch Question carr	<u>A</u> ries FIVE Maı	:ks. 5*5=25M
15. Explain the	structure of a jav	/a program?		
16. Explain diffe	erent data types	in java?		
17. Write a shor	t note on if state	ment		
18. Explain abo	ut Constructors?			
19. Differences	between arrays a	and vectors?		
20. Explain abo	ut Exception har	ndling?		
21. Explain the	applet life cycle	?		
22. How to creat	te and accessing	a package?		
		Section-	<u>B</u>	
Answer <u>FIVE</u> the Qu	iestions. Each	Question carries	TEN Marks	5*10=50M
23. Explain the	Concepts of Obj	ect Oriented Prog	gramming?	
24. Explain java	Features?			
25. Explain Loo	ping statements	with example		

- 26. Explain Method overloading with an example program
- 27. Explain about inheritance
- 28. Explain the concept of interface?
- 29. Explain life cycle of a thread?
- 30. Explain about Byte Stream Classes?

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2018-'19)

(With Effect Hom Academic Tear 2010- 17)				
	COMPUTER SCIENCE	CSC-301C	2019-20	B.Sc.(MPCs., MCCs.)
SEMESTER – III		PAPER – III		Max. Marks 75

Guidelines for paper setting 'OBJECT ORIENTED PROGRAMMING USING JAVA'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	1	2
Unit-4	1	1
Unit-5	2	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

COMPUTER SC	CIENCE	CSC-301P	2019-20	B.Sc.(MPCs., MCCs.)
SEMESTER – III		PA	PER – III	Max. Marks 50
Lab List OBJECT O	RIENTED 2 Exter	PROGRAMM	ING USING JA Internal: 25	AVA Pass Marks 25 Credits: 2

- 16. Write a program to perform various String Operations
- 17. Write a program to print the given number is Armstrong or not?
- 18. Prompt for the cost and selling price of an article and display the profit (or) loss
- 19. Write a program to print the numbers given by command line arguments
- 20. Write a program on class and object in java
- 21. Illustrate the method overriding in JAVA

- 22. Write a program to find the Simple Interest using Multilevel Inheritance
- 23. Write a program to display matrix multiplication.
- 24. Write a program to implement Exception handling
- 25. Write a program to create packages in Java
- 26. Write a program on interface in java
- 27. Write a program to Create Multiple Threads in Java
- 28. Write a program to Write Applets to draw the various polygons
- 29. Write a program to assign priorities to threads in java
- 30. Write an Applet Program to design a Simple Calculator.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2018-'19)

CO	OMPUTE	ER SCIENCE	ICT-II-301C	2019-20	B.A, I	B.Com, B.Sc.	
SEMEST	ER – III	PAPER – II	Max. Marks 50	Pass Marl	ks 20	Total Hrs 30	
Syllabus		Internet Fund	damentals and Web	o Tools NO	. Of Hrs:	2 Credits: 2	
Unit-I :							6Hrs
Fundame	ntals of I	nternet : Netwo	orking Concepts, Dat	a Communica	tion – Ty	pes of Networkir	ıg,
Internet an	d its Serv	vices, Internet A	ddressing – Internet	Applications -	- Comput	ter Viruses and it	s types
Unit-II.	-1 ypes e	n biowseis.					6Hrs
Internet a	nnlicatio	ns. Using Interr	et Explorer Standa	d Internet Exr	olorer Bu	ttons Entering a	Weh
Site Addre	ss. Search	hing the Internet	t = Introduction to Sector	ocial Network	ing: twitt	er, tumbler, Link	edIn
face book	flicker. S	skype, velp, vim	eo vahoo Google+	YouTube. W	hatsApp	etc.	culli,
Unit-III :		mype, jeip, im	eo, junoo, coogier,	1041400, 11	indist ipp,	0.00	6Hrs
E-mail :D	efinition	of E-mail - Adv	antages and Disadva	ntages – User-	-Ids, Pass	words, Email	01110
Addresses	Domain	Names, Mailers	, Message Compone	ents, Message	Composi	tion, Mail	
Manageme	ent, Email	l Inner Working	s.		-		
Unit IV:		C					6Hrs
WWW- W	eb Appli	cations, Web Te	erminologies, Web E	Browsers, URL	L – Comp	onents of URL,	
Searching	WWW -	- Search Engines	s and Examples				
Unit-V :							6Hrs
Basic HT	ML: Basi	c HTML – Web	Terminology – Stru	cture of a HT	ML Docu	ıment – HTML, H	Head
and Body	tags – Sei	mantic and Synt	actic Tags – HR, He	ading, Font, Ir	nage and	Anchor Tags –	
Different t	ypes of L	ists using tags –	Table Tags, Image	formats – Crea	ation of si	imple HTML	
Document	s.						

### **Reference Books :**

1. In-line/On-line : Fundamentals of the Internet and the World Wide Web, 2/e - by Raymond Greenlaw and Ellen Hepp, Publishers : TMH

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	(With Effect From	Academic	Year	2018-'	19)	)
--	-------------------	----------	------	--------	-----	---

COMPUTER SC	IENCE	ICT-II-301C	2019	-20	B.A, B	.Com, B.Sc.	
SEMESTER – III	PAPER	R – II Max.Marks	50 Pa	ss Ma	rks: 20	Total: 30 Hr	s

Modal Paper: Internet Fundamentals and Web Tools NO. Of Hrs: 2 Credits: 2

### Section-A

Answer <u>FOUR</u> (	Questions. Each	<b>Question carries</b>	FIVE marks.	4X5=20M
----------------------	-----------------	-------------------------	-------------	---------

15. Explain types of Browsers?

16. Explain Internet Applications.

17. Write a short note on Internet Explorer?

18. Explain User Id and Password of e-mail?

19. Explain Advantages and disadvantages of electronic mail.4

20. Explain about WWW?

21. Explain briefly about web application.

22. Explain Head and Body tags in HTML Document?

### Section- B

### Answer Any <u>THREE</u> Questions. Each Question carries TEN Marks. 3×10=30M

23. Explain types of Networking?

24. Explain Internet Services?

25. Explain any 10 Social Net Working Sites

26. Explain Message Composition.

27. Explain different types of Search Engines.

28. Explain different lists in HTML.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect From Academic Year 2018-'19)

	COMPUTER SCIENCE	ICT-II-301	2019-20	B.A, B.Com, B.Sc.	
SEME	STER – III	PAPER –	II	Max. Marks 50	

Guidelines for paper setting 'INTERNET FUNDAMENTALS AND WEB TOOLS'

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	1
Unit-3	2	1
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

CO	OMPUTER	SCIENCE	CCSC-303C	20	)19-20	B.Com. (C.A)
SEMES	TER – III	PAPER – I	III Max. Marks	75	Pass Mar	ks 30 Total Hrs: 60
<u>Syllabus</u>	-	Office Auton	nation Tools	NO.	Of. Hours	s: 5 Credits: 4

### Unit-I:

### 12Hrs

**MS-Excel:** features of Ms-Excel, Parts of MS-Excel window, entering and editing data in worksheet, number formatting in excel, different cell references, how to enter and edit formula in excel, auto fill and custom fill, printing options.

### Unit-II:

12

**Hrs Formatting options:** Different formatting options, change row height, formulae and Functions, **Functions:** Meaning and advantages of functions, different types of functions available in Excel. **Unit-III:** 

### 12Hrs

**Charts:** Different types of charts, Parts of chart, chart creation using wizard, chart operations, data maps, graphs, data sorting, filtering. Excel sub totals, scenarios, what-if analysis.

**Macro:** Meaning and advantages of Macros, creation, editing and deletion of macros - Creating a macro, how to run, how to delete a macro.

### Unit-IV:

### 12Hrs

**MS** Access: Creating a Simple Database and Tables: Features of Ms-Access, Creating a Database, Parts of Access. Tables: table creation using design view, table wizard, data sheet view, import table, link table. Forms: The Form Wizard, design view, columnar, tabular, data sheet, chart wizard. Unit- V:

### 12Hrs

**Finding, Sorting and Displaying Data:** Queries and Dynasts, Creating and using select queries, Returning to the Query Design, Multi-level sorts, Finding incomplete matches, showing All records after a Query, saving queries - Crosstab Queries. **Printing Reports:** Form and Database Printing..

### **Reference Books:**

1.Ron Mansfield, Working in Microsoft Office, Tata McGraw Hill(2008)

2.Ed Bott, Woody Leonhard, Using Microsoft Office 2007, Pearson Education(2007)

3. Sanjay Saxsena, Microsoft Office, 4. Microsoft Office, BPB Publications

An Autono	omous college wi (With Eff	thin the jurisdiction fect from Academ	on of Krishna ic Year 2018	uUnivers -'19)	sity A.P, India.
COMPUTER	SCIENCE	CCSC-303C	2019-20	B.Co	om. (C.A)
SEMESTER – III	PAPER – III	Max. Marks	75 Pass M	arks 30	Total Hrs: 60
Model Paper	Office Autor	nation Tools	N	O Of H	ours: 5 Credits: 4
		Section- A	<u>\</u>		
Answer <u>FIVE</u> Quest	ions. Each Ques	stion carries FIV	E Marks.		5*5=25M
15. Explain Featu	res of Excel?				
16. Explain Numb	per Formatting in	Excel?			
17. Explain How	to Change row H	eight??			
18. What are adva	intages of Function	ons?			
19. Explain what	is sorting?				
20. Explain how t	o delete Macro?				
21. Write any 5 F	eatures of Access	s?			
22. Describe Que	ry used in MS-Ac	ccess?			
		<u>Section- I</u>	<u>3</u>		
Answer <u>FIVE</u> the Q	uestions. Each (	<b>Juestion carries</b>	TEN Marks.		5*10=50M
23. Explain Parts	of Excel Sheet w	ith neat Diagram.			
24. Explain Autol	Fill and Custom H	Fill Options in Exc	cel.		
25. Explain differ	rent types of Fund	ctions available.			
26. Explain differ	rent Formatting c	options.			
27. What is Chart	? Explain differe	nt types of Charts.			
28. What is Macr	o? Explain Creat	ing and Editing of	f Macro.		

49

- 29. What is Form? Explain Creating Form using Form Wizard.
- 30. Explain How to Create a Query, Showing, all records after Query and Saving Query.

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

COMPUTER SCIENCE	CCSC-303C	2019-20	B.Com. (C.A)
SEMESTER – III PAPER – III		R – III	Max. Marks 75

# Guidelines for paper setting 'OFFICE AUTOMATION TOOLS'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section -A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	(With Effect from Academic Year 2018-'19)							
	COMPUTER	SCIENCE	CCSC-303P	2019-20	B.Com. (C.A)			
SE	MESTER – III	PAPER – I	II Max. Marks	50 Pass Ma	rks 20 Total Hrs: .	30		
Lał	o list	Office Autor	mation Tools					

### **Ms-Word**

- 4. Create a vesting Card
- 5. Create a template for organization using header & footer
- 6. Mail merge Procedure

### Ms-Excel

1. Create an electronic spreadsheet in which you enter the following decimal numbers and convert into Octal, Hexadecimal and Binary numbers vice versa. Decimal Numbers: 35, 68, 95, 165, 225, 355, 375, 465. Binary Numbers: 101, 1101, 111011, 10001, 110011001, 111011111.

2. The ABC Company shows the sales of different products for 5 years. Create column chart, 3D-column and Bar chart for the following data
YEAR PRODUCT-1 PRODUCT-2 PRODUCT-3 PRODUCT-4
2003 1000 800 900 1000 2004 800 80 500 900 2005 1200 190 400 800 2006 400 200 300 1000
2007 1800 400 400 1200

3. Create a suitable examination data base and find the sum of the marks(total) of each student and respective class secured by the student rules:
Pass if marks in each subject >=35
Distinction if average>=75
First class if average>=60 but <75</li>
Second class if average>=50 but <60</li>
Third class if average>=35 but <50</li>
Fail if marks in any subject is <35</li>
Display average marks of the class, subject wise and pass percentage

4. Create an electronic spread sheet in which you enter date and time functions in Excel

5. Create a electronic spread sheet in statistical and mathematical functions in Excel

### **MS-PowerPoint**

1. Make a Power point presentation on your strengths, weaknesses, hobbies, factors that waste your time.

2. Make a Power point presentation to represent your College profile.

3. Make a Power point presentation of all the details of the books that you had studied in B.Sc. First Year.

4. Create a Presentation without Animation.

**MS-ACCESS** 

1. Create a database using MS-ACCESS with at least 5 records table1 structure: register number , name, dob, gender, class table2 structure: register number m1 m2 m3 m4 m5 total maintain the relationship between two tables with register number as a primary key and answer the following quarries: show the list of students with the following fields as one query register number name gender total marks

2. Maintain the relationship between above two tables with register number as a primary key and answer the following reports: reports must have following columns report1 with register number, name, marks of all subjects and 90 hrs (3 hrs/ week) computer science 10 of 44 total report2 with register number, total , percentage.

3. Create a database using ms-access with at least 5 records table1 structure: emp-code emp-name age gender dob table2 structure: emp-code basic-pay maintain the relationship between two tables with emp-code as a primary key generate the following reports: report1: emp-code emp-name basic-pay da,hra gross-salary report2: emp-code emp-name age gender gross-salary

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

	COMPUT	ER SCIENCE	CSC-101C	2019-20	B.Sc.(MPC	cs, MCCs.)
SEM	IESTER – I	PAPER – I	Max. Marks	70 Pass M	arks 28	Total Hrs 60
Sylla	<u>ıbus:</u>	<b>Computer Fun</b>	damentals & Phot	toshop NO. (	Of. Hours: 4	Credits: 3

# UNIT-I:

# 12Hrs

Introduction to computers, characteristics and limitations of computer, Block diagram of computer, types of computers, uses of computers, computer generations. Number systems: binary, hexa and octal numbering system.

### UNIT-II:

# 12Hrs

Input and output devices: Keyboard and mouse, inputting data in other ways, Types of Software: system software, Application software, commercial, open source, domain and freeware software, Memories: primary, secondary and cache memory. Windows basics: desktop, start menu, icons.

# Unit –III:

### 15Hrs

Introduction to Adobe Photoshop, Getting started with Photoshop, creating and saving a document in Photoshop, page layout and back ground, Photoshop program window-title bar, menu bar ,option bar ,image window ,image title bar ,status bar, ruler ,paletts, tool box ,screen modes ,saving files ,reverting files ,closing files.

### Unit –IV:

### 10Hrs

**Images**: working with images, image size and resolution, image editing, colour modes and adjustments, Zooming & Panning an Image, Rulers, Guides & Grids- Cropping & Straightening an Image, image backgrounds, making selections.

**Working with tool box:** working with pen tool, save and load selection-working with erasers-working with text and brushes-Colour manipulations: colour modes- Levels Curves - Seeing Colour accurately - Patch tool – Cropping-Reading your palettes - Dust and scratches- Advanced Retouching- smoothing skin.

### Unit-V:

### 11Hrs

Layers: Working with layers- layer styles- opacity-adjustment layers

**Filters:** The filter menu, Working with filters- Editing your photo shoot, presentation –how to create adds, artstic filter, blur filter, brush store filter, distort filters, noice filters, pixelate filters, light effects, difference clouds, sharpen filters, printing.

### **Reference Books:**

1. Fundamentals of Computers by Reema Thareja from Oxford University Press

2. Adobe Photoshop Class Room in a Book by Adobe Creative Team.

3. Photoshop: Beginner's Guide for Photoshop - Digital Photography, Photo Editing, Colour Grading

& Graphic...19 February 2016 by David Maxwell

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within he jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

(****			
COMPUTER SCIENCE	CSC-101C	2019-'20	B.Sc.(MPCs, MCCs.)
SEMESTER – I PAPE	R – I Max. I	Marks 70	Pass Marks 28
Model Paper Computer Fu	ndamentals & Pho	toshop NO	Of Hours: 4 Credits: 3
	Section-	<u>A</u>	
Answer <u>FOUR</u> Questions. Each	Question carries FI	VE Marks.	4*5=20M
1. Explain Characteristics ar	nd limitations of Comp	outer?	
2. Explain desktop, start mer	nu, icons?		
3. Describe Cache Memory?	)		
4. Explain saving, retrieving	and closing files in Pl	notoshop?	
5. Write a short note on Pen	tool?		
6. Explain working with Lay	vers?		
	Section-	<u>B</u>	
Answer <u>FIVE</u> the Questions. Ea	ach Question carries	TEN Marks.	5*10=50M
7. Explain Block Diagran	n of Computer?		
8. Explain Types of Com	puters?		
9. Explain about Input D	evices?		
10. Explain about Comput	ter Memory?		
11. Explain title-bar, menu	u-bar, option- bar and	image window	in Photoshop?
12. Explain Rulers, Guide	and Grid-Cropping op	tions for an Ima	age?
13. Explain Colour modes	- Levels and Curves?		

14. Explain different Filters Photoshop?

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2018-'19)

	COMPUTER SCIENCE	CSC-101	2019-20	B.Sc.(MPCs., MCCs.)
SEME	STER – I	PAPER – 1	[	Max. Marks 70

Max. Mai

Guidelines for paper setting 'COMPUTER FUNDAMENTALS & PHOTOSHOP'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A ٠
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as • per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

			,
COMPUTER SCIENCE	CSC-101P	2019-20	B.Sc.(MPCs, MCCs.)
SEMESTER – I PAPER – I	I Max. Mar	rks : 50	Pass Marks 25
No. of Hours per week: 2 Ext	ernal: 25	Internal: 25	Credits: 2
Lab ListPhoto Shop Lab			
1. Create your Visiting card			
2. Create Cover page for any text be	ook		
3. Create a Paper add for advertisin	g of any commercia	l agency	
4. Design a Passport photo			
5. Create a Pamphlet for any progra	Im to be conducted b	by an organizat	ion
6. Create Broacher for you college			
7. Create Titles for any forthcoming	g film		
8. Custom shapes creation			
9. Create a Web template for your c	college		
10. Convert colour photo to black a	nd white photo		
11. Enhance and reduce the given I	mage size		
12. Background changes			
13. Design Box package cover			
14. Design Texture and patterns			
15. Filter effects & Eraser effects			

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

	COMPUT	ER SCIENCE	CCSC-103C	2019-20	B.Com.(C.A	<b>A</b> )
SEM	ESTER – I	PAPER – I	Max. Marks	70 Pass M	arks 28	Total Hrs 60
<u>Sylla</u>	bus:	<b>Computer Fun</b>	damentals & Phot	toshop NO. (	)f. Hours: 4	Credits: 3

# UNIT-I:

Introduction to computers, characteristics and limitations of computer, Block diagram of computer, types of computers, uses of computers, computer generations. Number systems: binary, hexa and octal numbering system.

# **UNIT-II:**

Input and output devices: Keyboard and mouse, inputting data in other ways, Types of Software: system software, Application software, commercial, open source, domain and freeware software, Memories: primary, secondary and cache memory. Windows basics: desktop, start menu, icons.

# Unit –III:

Introduction to Adobe Photoshop, Getting started with Photoshop, creating and saving a document in Photoshop, page layout and back ground, Photoshop program window-title bar, menu bar ,option bar ,image window ,image title bar ,status bar, ruler ,paletts, tool box ,screen modes ,saving files ,reverting files ,closing files.

# Unit –IV:

**Images**: working with images, image size and resolution, image editing, colour modes and adjustments, Zooming & Panning an Image, Rulers, Guides & Grids- Cropping & Straightening an Image, image backgrounds, making selections.

**Working with tool box:** working with pen tool, save and load selection-working with erasers-working with text and brushes-Colour manipulations: colour modes- Levels Curves - Seeing Colour accurately - Patch tool – Cropping-Reading your palettes - Dust and scratches- Advanced Retouching- smoothing skin.

# Unit-V:

**Layers:** Working with layers- layer styles- opacity-adjustment layers **Filters:** The filter menu, Working with filters- Editing your photo shoot, presentation –how to create adds, artstic filter, blur filter, brush store filter, distort filters, noice filters, pixelate filters, light effects, difference clouds, sharpen filters, printing.

# **Reference Books:**

1. Fundamentals of Computers by Reema Thareja from Oxford University Press

2. Adobe Photoshop Class Room in a Book by Adobe Creative Team.

3. Photoshop: Beginner's Guide for Photoshop - Digital Photography, Photo Editing, Colour Grading & Graphic...19 February 2016 by David Maxwell

# 11Hrs

# 12Hrs

15Hrs

10Hrs

12Hrs

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

		W IUI L	Alleet Holli Acadelille	1 cai 2010- 1	<i>)</i>
COMPU	TER SCIENCI	C	CCSC-103C	2019-20	B.Com.(C.A)
SEMESTE	R – I PAP	$\mathbf{E}\mathbf{R} - \mathbf{I}$	Max. Marks 7	/0	Pass Marks 28
Model Pape	Computer	Funda	amentals & Photo	oshop NO O	f Hours: 4 Credits: 3
			Section- A		
Answer <u>FOI</u>	J <u>R</u> Questions. E	ach Q	uestion carries FIVI	E Marks.	4*5=20M
1. Expla	in Characteristic	s and li	imitations of Comput	er?	
2. Expla	in desktop, start	menu,	icons?		
3. Desci	ibe Cache Memo	ory?			
4. Expla	in saving, retriev	ing an	d closing files in Pho	toshop?	
5. Write	a short note on ]	Pen too	ol?		
6. Expla	in working with	Layers	5?		
			<u>Section- B</u>		
Answer <u>FIV</u>	E the Questions	. Each	Question carries TI	EN Marks.	5*10=50M
7. Ex	plain Block Diag	ram of	Computer?		
8. Ez	plain Types of C	Comput	ters?		
9. Ez	plain about Inpu	t Devi	ces?		
10. Ez	plain about Con	puter l	Memory?		
11. Ex	plain title-bar, n	nenu-ba	ar, option- bar and im	age window ir	n Photoshop?

- 12. Explain Rulers, Guide and Grid-Cropping options for an Image?
- 13. Explain Colour modes Levels and Curves?
- 14. Explain different Filters Photoshop?

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2018-'19)

COMPUTER SCIENCE	CCSC-103C	2019-20	B.Com.(C.A)	

SEMESTER – I

PAPER – I

Max. Marks 70

## Guidelines for paper setting <u>'COMPUTER FUNDAMENTALS & PHOTOSHOP'</u>

Unit wise weightage of Marks	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

			•			
COMPUTER SCIENCE	CCSC-103P	2019-20	B.Com. (CA.)			
SEMESTER – I PAPER –	I Max. Mar	rks : 50	Pass Marks 25			
No. of Hours per week: 2 Ex	ternal: 25	Internal: 25	Credits: 2			
Lab ListPhoto Shop Lab						
1. Create your Visiting card						
2. Create Cover page for any text b	book					
3. Create a Paper add for advertisin	ng of any commercia	l agency				
4. Design a Passport photo						
5. Create a Pamphlet for any progr	am to be conducted h	oy an organizati	on			
6. Create Broacher for you college	:					
7. Create Titles for any forthcoming film						
8. Custom shapes creation						
9. Convert colour photo to black and white photo						
10. Background changes						
11. Design Texture and patterns						
12. Filter effects & Eraser effects						
→Discussed and recommended the teaching and evaluation methods for approval of Academic Council. *Teaching methods:* 

Besides the conventional methods of teaching, we use modern technology i.e. Using of LMS and LCD projector to display on power board etc..for better understanding of concepts.

### Evaluation of a student is done by the following procedure:

There are two components in the Valuation and Assessment of a student – Internal Assessment(IA)Semester Examinations (SE). For the Batch of Students Admittedfrom 2018-19.Semester Examinations (SE).

### Internal Assessment (IA)

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical papers 50.
- Each IA written examination is of 1 hour's duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /ppt/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation. For attendance 5 Marks are allotted.
- The semester examination will be of 3 hours with maximum 70 marks.
- There is no passing minimum marks for IA.

### Semester Examinations (SE)

- A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.
- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration & Foundation course 2 hours irrespective of the number of credits allotted to it.
- If a candidate fails to obtain pass marks even after the due to less mark in the IA examination, the marks of the next examination will be converted to be out of 100.
- Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'.
- The maximum marks for each Paper shall be 100.

Evaluation of a student is done by the following procedure for All II & III Year B.Sc. (MPCs) & B.Com. (C.A). For the Batch of Students Admitted from 2016-17.

### **Internal Assessment Examinations:**

- i) Out of maximum 100 marks in each paper, 25 marks shall be allocated for internal assessment.
- Out of these 25 marks, 20 marks are allocated for announced internal tests. Two announced internal tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, remaining 5 marks are allocated on the basis of candidate's percentage of attendance.

### **Semester-End Examinations:**

and Even semester <b>Tany</b> Prac	lical ex	kaminations are	e to be evaluated by External
Examiner for III B.Com (Com	puters)	students only.	
Question paper guide lines for Prac	ctical E	Examinations at	the end of Semesters III &IV
Two Practical Programs to be conduc	cted ou	it of 15 program	ns at the end of Semester III & IV
Practical Examination		SHIS and Max	Innum Marks 50
Scheme of valuation Semesters	$s - \Pi \alpha$	LIV D.SC. (MI.F	CS), B.Com (Computers)
Computer Science Practical's - External (	Time:	3 hrs.)	Total Marks: 25M
1. Programs Writing (2):		10 marks,	
2. Viva voice :		5 marks	
3. Execution & Result :		10 marks	
Total Marks `:		25	
Computer Science Practical's- Internal			Total Marks: 25M
1. Attendance	:	5 mar	ks
2. Record	:	10 m	arks
3. Day to day observation	:	5 mar	ks
4. Problem solving and Execution	:	5 mar	'ks 
Total Marks	:	25	

The maximum marks for Semester-End examinations shall be 75 marks and duration of

Odd semester practical end examinations are to be evaluated by Internal Examiners and

Even semester practical end examinations are to be evaluated by External Examiners. V semester end **C** practical examination are to be evaluated by Internal Examiners

Semester-End examinations shall be conducted in theory papers and the practical

papers are conducted at the end of every Semester for II & III B.Sc. (MPCs) only.

- Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council. Discussed and recommended to conduct certificate courses for Computer Science and Non-Computer Science students separately like TALLY ACCOUNTING PACKAGE, ADOBE PHOTOSHOP, DESKTOP PUBLISHING, COMPUTER HARDWARE AND NETWORKING, WEB DESIGNING, OPERATING SYSTEMS, ETC...
- 2. Discussed and empowered the HOD to suggest the panel of the paper setters and examiners to the controller of the examinations.
- 3. Nil.

i)

ii)

iii)

iv)

the examination shall be 3 Hours.

.....

Chairman

# A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

# VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

# Accredited by NAAC with "A" Grade

# 2020-2021



# **DEPARTMENT OF COMPUTER SCIENCE**

# **MINUTES OF BOARD OF STUDIES**

# **ODD SEMESTER**

18-07-2020

Minutes of the meeting of Board of Studies in Computer Science for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10.30 A.M on 18-07-2020 through Online Video Conference Cisco WebEx Meeting

# Sri T.Naga PrasadaRao ...... Presiding <u>Members Present:</u>

Chairman Head, Department of Computer Science, (T.NagaPrasadaRao) AG&SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165 .University Professor. (Dr. R.Kiran Kumar) Nominee Dept of Computer Science, Krishna University, Machilipatnam. 3).... Academic Head, Department of Computer Science& Engineering. (Dr. Suresh Sundaradasu) Dhanekula Institute of Engineering & Technology, Council Nominee Ganguru, JNTU(K), Vijayawada. Professor, Department of Computer Science Academic (Dr. K Bhagvan) Council K.B.N College, Nominee Vijayawada. Ly Industrial .Net Developer. (R. Sowianya Excepert Mavensoft Systems Private limited Madaapur, Hyderabad. Member Lecturer in Computer Science, AG&SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165. e o orthi/Member Lecturer in Computer Science, AG&SG Siddhartha (T.Keerthi) Degree College of Arts & Science, Vuyyuru-521165 Lecturer in Computer Science, AG&SG Siddhartha Member (A. Sravani) Degree College of Arts & Science, Vuyyuru-521165 Lecturer in Computer Science, AG&SG Siddhartha Member (S.Prabha Degree College of Arts & Science, Vuyyuru-521165 Member Lecturer in Computer Science, AG&SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165 Member Student in M.Sc. Computer Science, AG& SG Siddhartha (A.Preethi) Degree College of Arts & Science, Vuyyuru-521165 Schor Member Student in B.Sc. Computer Science, AG&, SG Siddhartha (A GirijaSuma) Degree College of Arts & Science, Vuyyuru-521165

### Agenda for B.O.S Meeting.

- To recommend syllabi for V Semester of III year Degree B.Sc(MPCs, MCCs.) & B.Com (C.A) as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.
- 2. To recommend the Model Question Papers, Lab programs list and Blue print of Semester of III year Degree B.Sc. (MPCs, MCCs.)&B.Com (C.A) as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.
- 3. To recommend the Guidelines to be followed by the question paper setters in Computer Science for III year Degree B.Sc.(MPCs, MCCs.)&B.Com (C.A) as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.
- 4. To recommend any changes in the syllabi for I, III, V Semesters of I, II, III year Degree B.Sc.(MPCs, MCCs) and B.Com.(C.A.).
- 5. To recommend the new paper for III BCOM (C.A) in Semester V Syllabi, Model Question paper, Lab programs list and Blue print, Guidelines to be followed by the question paper setters in Computer Science for III Year Degree B.Com. (C.A) with effect from the Academic Year 2020-21.
- 6. To recommend the teaching and evaluation methods to be followed under Autonomous status.
- 7. Any suggestions regarding the certificate courses for all Computer Science and Non-Computer Science students, seminars, workshops, Guest lecturers to be organized.
- 8. Any other matter.

### **Resolutions**

- Discussed and recommended, to implement same syllabi for V Semester of III year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.) as per the APSCHE guidelines and their instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21 except one paper in III B.Com (CA)
- 2) Discussed and recommended to introduce a new paper titled "Object Oriented Programming with Java" for III BCOM(C.A) in Semester V, Syllabi, Model Question paper, Lab programs list and Blue print, Guidelines to be followed by the question paper setters in Computer Science for III Year Degree B.Com.(C.A) with effect from the Academic Year 2020-21.
- **3)** Discussed and recommended, to implement Model Question Papers, Lab Programs List and blue print for V Semester of III year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.) as per the APSCHE guidelines and their instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.
- 4) Discussed and recommended the syllabi without any changes for the following semesters
  - I Semester of I Year B.Sc. (MPCs, MCCs) & B.Com.(CA).
  - IIISemester of II Year B.Sc. (MPCs,MCCs) & B.Com.(CA).
  - Foundation Course for All Degree Courses under Choice Based Credit System with Effect from Academic Year 2020-21.
- 5) Discussed and recommended the teaching and evaluation methods for approval of Academic Council.
- 6) It Is Resolved And Recommended to follow the New Syllabi And Model Question Paper of Regulations of 2020-21 in I Semester Of I Year Degree Bsc(Mpcs,Mccs) And Bcom(CA).
- 7) It is Resolved and Recommended NO changes in the Syllabi for III Semester of II Year Degree Bcom(CA), BA, BSC, BSC(MPCS, MCCS).

### Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of LMS and LCD projector to display on power board etc.. for better understanding of concepts.

*Evaluation of a student is done by the following procedure* for All III Year B.Sc. (MPCs,MCCs) &B.Com. (C.A). For the Batch of Students Admitted from Academic year 2018-19.

There are two components in the Valuation and Assessment of a student – Internal Assessment (IA) Semester Examinations (SE).

### Internal Assessment (IA)

- i. The maximum mark for IA is 30 and SE is 70 for theory; and for practical papers 50.
- ii. Each IA written examination is of 1 hour's duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- iii. Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /ppt/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation. For attendance 5 Marks are allotted.
- iv. The semester examination will be of 3 hours with maximum 70 marks.
- v. There is no passing minimum marks for IA.

**Semester-End Examinations:** A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.

- i) The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration & Foundation course 2 hours irrespective of the number of credits allotted to it.
- ii) If a candidate fails to obtained pass marks even after the due to less mark in the IA examination, the marks of the next examination will be converted to be out of 100.
- iii) Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'.
- iv) The maximum marks for each Paper shall be 100.
- v) The maximum marks for Semester-End examinations shall be 70 marks and duration of the examination shall be 3 Hours.
- vi) Semester-End examinations shall be conducted in theory papers and the practical papers are conducted at the end of every Semester for B.Sc. (MPCs,MCCs)& B.Com.(C.A) only.
- vii) Odd semester practical end examinations are to be evaluated by Internal Examiners and Even semester practical end examinations are to be evaluated by External Examiners.

Question paper guide lines for Practical Examinations at the end of Semesters Two Practical Programs to be conducted out of 15 programs at the end of Semester Practical Examination time 3Hrs&Maximum Marks 50 Scheme of valuation Semesters – B.Sc. (MPCs, MCCs), B. Com (CA)

Computer Science Practical's - External (T	ime: 3 hrs.)	Total Marks: 25M
1. Programs Writing (2) :10 marks2. Viva voice:3. Execution & Result:10 marks	s, s	
Total Marks : 25		
Computer Science Practical's- Internal	 . ,	Total Marks: 25M
<ol> <li>Attendance</li> <li>Record</li> <li>Day to day observation</li> <li>Problem solving and Execution</li> </ol>	: 5 marks :10 marks : 5marks : 5 marks	
Total Marks	: 25	
7). Discussed and recommended to organize Science students separately, Seminars, Guest the approval of the Academic Council.	certificate courses lectures, Work-sho	s for Computer Science and Non-Computer ops to upgrade the knowledge of students, for
8) It is resolve to follow further changes if any	in the syllabus by	competent authority.

9) Discussed and Recommend to introduce Value Added Course on "BASIC COMPUTER

**APPLICATIONS & MS OFFICE**" with Course Code "**BCAM101**" for 1<sup>ST</sup> MPC's & MCC's -1<sup>ST</sup> SEM **10**) Discussed and Recommend to introduce Value Added Course on "**AWS**" with Course Code

"VACAWS-01" for II MPC's &MCC's-3rd SEM

11) Discussed and Recommend to introduce Value Added Course on "CLOUD COMPUTING" with Course Code "VACCC12" for IIIBCOM(CA)-5<sup>TH</sup> SEM

12) Suggestions To recommend Online certificate courses such as NPTL, APSSDC - PYTHON, R-Programming, Amazon Web services and JAVA -----etc. To fill the curriculum gaps from II Pear Degree on words.

Chairman

COMPUTER SC	IENCE CS	C-501C	2020-'21	B.Sc.(MPCs,MCCs)
SEMESTER – V	PAPER	R - V		Max. Marks 70
<u>Syllabus</u>	DATA BAS	E MANAG	EMENT SYS	ГЕMS
NO Of Hours: 4	No Of Cred	its: 3		Pass Marks

Course Objective: Design & develop database for large volumes & varieties of data with optimized data processing techniques.

### **Unit – I: Database Systems Introduction**

*Database Systems*: Introducing the database and DBMS, Why the database is important, *Historical Roots:* Files and File Systems, Problems with File System, Data Management, Database Systems. *Data Models:* The importance of Data models, Data Model Basic Building Blocks, The evaluation of Data Models, Degree of Data Abstraction.

### Unit - II: Relational Database & Data Modelling

*The Relational Database Model:* A logical view of Data, Keys, Integrity Rules, Relational Set Operators, The Data Dictionary and the system Catalog, Indexes, Codd's relational database rules. *Entity Relationship Model:* The ER Model*Advanced Data Modelling:* The Extended Entity Relationship Model, Entity clustering, Entity integrity.

### **Unit-III:Normalization and Database Design**

Data base Tables and Normalization, The need Normalization, The Normalization Process, High level Normal Forms, Normalization and database design, de normalization.

*Database Design:* The Information System, The Systems Development Life Cycle, The Database Life Cycle, Centralized Vs Decentralized design.

### **Unit-IV:Structured Query Language**

*Introduction to SQL:* Data Definition Commands, Data Manipulation Commands, Select queries, Advanced Data Definition Commands, Advanced Select queries, Virtual Tables, SQL Join Operators, Sub queries and correlated queries, SQL Functions.

### **Unit-V: Procedural SQL**

**10Hrs***Introduction to PL/SQL:* Triggers, Stored Procedures, Pl/ SQL Stored Functions **Prescribed Text Book:** 

1. Peter Rob, Carlos Coronel, Database Systems Design, Implementation and Management, Seventh Edition, Thomson (2007).

### **Reference Books**:

- 1. Elimasri / Navathe, Fundamentals of Database Systems, Fifth Edition, Pearson Addison Wesley 2. Raman A Mata Toledo/Panline K Cushman, Database Management Systems, .
- 2. C.J.Date, A.Kannan, S.Swamynathan, An Introduction to Database Systems, Eight edition,
- 3. "DatabaseSystemConcepts" by AbrahamSilberschatz, Henry Korth, and S.Sudarshan,
- Atul Kahate, Introduction to Database Management Systems, Pearson Education (2006).
   Student Activity: 1. Create your college database for placement purpose. 2. Create faculty database of your college with their academic performance scores

### 12 Hrs

14 Hrs

# 12 Hrs

12Hrs

	COMPUTER SCIENCE	CSC-501C	2020-'21	B.Sc.(MPCs,MCCs)
ł	SEMESTER – V	PAPER – V		Max. Marks 70
Model	PaperDATNO Of Hours: 4No O	A BASE MANAG Df Credits: 3	EMENT SYS	TEMS Pass Marks 28
A	nswer any <u>FOUR Questions.</u>	<u>Section-A</u> Each question carrie	es <b>FIVE</b> Mark	s <b>4x5=20M</b>
1.	Explain the Components of	Database System?		
2.	Explain Relational Data Mo	del?		
3.	Write about Relational Set (	Operators?		
4.	Describe BCNF?			
5.	Write about Special Functio	ns?		
6.	Explain Stored Procedures?			
		Section-B		
A	nswer any <u>FIVE</u> Questions. E	ach question carries	s <b>TEN</b> Marks	5X10=50M
7.	What is File? Explain the pr	oblems with File sy	stem	
8.	Explain the Degree of Data	Abstraction.		

- 9. Explain E.F.CODDs' rules.
- 10. Explain Extended Entity Relationship Model.
- 11. Explain the concept of Normal Forms.
- 12. Explain about SDLC.
- 13. Explain DDL and DML commands.
- 14. Explain about triggers.

	COMPUTER SCIENCE	CSC-501C	2020-'21	B.Sc.(MPCs,MCCs)	
5	SEMESTER – V PAPER – V	Max. Marks	70	Pass Marks 28	

Guidelines for paper setting '<u>DATA BASE MANAGEMENT SYSTEMS'</u> <u>Unit wise weightage of Marks</u>

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-21)

	COMPUTER SCIENCE	CSC-501P	2020-'21	B.Sc.(MPCS,MCCs)
SEM	IESTER – V	PAPER – V		Max. Marks 50
Lab	List DATA BASE MANAG	GEMENT SYSTEM	S	Pass Marks 25
No. (	of Hours per week: 2	External: 25	Internal: 25	Credits: 2

- 1. Creation of college database and establish relationships between tables
- 2. Explain various data type in Oracle.
- 3. Show the structure of the Emp table.
- 4. Show the structure of the DEPT table.
- 5. Explain the syntax of SELECT statement.
- 6. Create a query to display the name, job, hiredate and employee number from emp table.
- 7. Create a query to display unique jobs from the emp table.
- 8. Create a query to display the empno as EMP#, ename as EMPLOYEE and Hire\_date from emp.
- 9. Create a query to display all the data from the EMP table. Separate each column by a comma and name the column THE\_OUTPUT.
- 10. Create a query to display the name and salary of employees earning more than 2850.
- 11. Create a query to display the name and salary for all employees whose salary is not in the range of 1500 and 2850.
- 12. Display the employee name, job and start date of employees hired between February 20,1981 and May 1, 1981. Order the query in ascending order of start date
- 13. Display the employee name and department number of all the employees in departments 10 and 30 in alphabetical order by name.
- 14. List the name and salary of employees who earn more than 1500 & are in department 10 or 30.
- 15. Display the name, salary and commissions and sort data in descending order of salary and commission.
- 16. Display the name and job title of all employees who do not have a manager.
- 17. Display the name, job and salary for all employees whose job is Clerk or Analyst and their salary is not equal to 1000, 3000 or 5000.
- 18. Display the names of all employees where the third letter of their name is an 'A'.
- 19. Display the names of all employees who have two 'L's in their name and are in department 30 or their manager is 7782.
- 20. Display the name, salary and commission for all employees whose commission amount is grater than their salary increased by 10%.
- 21. Explain all the character functions.
- 22. Explain all the number functions.
- 23. Explain all the Date functions.
- 24. Explain different types of JOIN.
- 25. Write a query to display the name, department number and department name for all employees.
- 26. Create a unique listing of all jobs that are in department 30. and include the location of department 30 in the output.
- 27. Write a query to display the employee name, department name and location of all employees who earn a commission.
- 28. Write a query to display the name ,job department number and department name for all employees who work in 'DALLAS'.

- 29. Create a query to display the name and hire date of any employee hired after employee BLAKE.
- 30. Display all employees names and hire dates along with their manager's name and hire date for all employees who were hired before their managers.
- 31. Create your own users and give permissions to you and explain GRANT and REVOKE Commands.
- A. Create MOVIE database using the following tables.

MOVIE:Movie no: primary key, varchar2Movie name: NOT NULL, varchar2Movie Type: varchar2Star: Varchar2

CUSTOMER: Customer No: primary key, varchar2 Customer Name: NOT NULL, varchar2 Address: NOT NULL Phone no: Number INVOICE: Invoice no: Varchar2, primary key

Movie no: foreign key Customer no: foreign key

Price: NOT NULL, Number

Queries:

- 1. List the movie names that starts with 'p'
- 2. List the number of the movies those price ranges from 15000 and 20000
- 3. List the customers who have phone numbers.
- 4. List the customers who have no phone numbers.
- 5. Display the following string
  - (a) A Customer "customer number" has bought the "movie number" "movie name" with "Price"
- 6. List the customers by calculating price as (price\*tax)/100 where tax=0.5 and rename the column as 'tax'.
- 7. List the movies, which are owned by 2 customers.
- 8. List the customers, who bought 2 picture names.
- 9. List the customers, who are not the range of 15000 and 20000.
- B. <u>Create Student database using the following tables.</u>
  - STUDENT: Sno : primary key, numberSname : NOT NULL, varchar2 Address: Varchar2

COURSE:Sno : Foreign key.Course Name : varchar2

Queries:

- 1. Alter table by adding a column fees in table COURSE.
- 2. Alter table by modifying the address to VARCHAR2(20)
- 3. Create a view on which the students who joined in one course only.

PL/SQL.

- 1. Write A Pl/Sql Program To Swap Two Numbers Without Using Third Variable.
- 2. Write A Pl/Sql Program To Generate Multiplication Tables For Numbers 2,4 And 6
- **3.** Write A Pl/Sql Program To Display Sum Of Even Numbers And Sum Of Odd Numbers In The Given Range.
- 4. Write A Pl/Sql Program To Check The Given Number Is Pollinndrome Or Not.
- 5. Write A Pl/Sql Program To Display Top 10 Rows In Emp Table Based On Their Job And Salary.
- 6. Write A Procedure Update The Salary Of Employee, Who is Not Getting Commission by 10%.

### **Reference Books:**

- 1. Oracle Pl/Sql By Example. Benjamin Rosenzweig, Elena Silvestrova, Pearsoneducation 3rd Edition
- 2. Sql& Pl/Sql For Oracle 10g, Black Book, Dr.P.S. Deshpande

COMPUTER SCIENCE	CSC-502C	2020-'21	B.Sc.(MPCs,MCCs)
SEMESTER – V	PAPER – VI		Max. Marks 70
<u>Syllabus</u>	SOFTWARE ENG	GINEERING	
NO of Hours: 4	No Of Credits: 3	3	Pass Marks 28

### **Course Objectives**

The Objective of the course is to assist the student in understanding the basic theory of software engineering, and to apply these basic theoretical principles to a group software development project. **UNIT-I: Introduction to Software Engineering & Process** 12Hrs

The Evolving Role of Software-Software - The Changing Nature of Software, Software Myths, Legacy Software.

Process: Software Engineering-A Layered Technology - A Process Framework - The Capability Maturity Model Integration (CMMI) - Process Patterns, Process Assessments - Personal Software Process(PSP), Team Software Process (TSP).

#### **Unit-II: Process Models**

The Waterfall Models - Increment Process Models: The Increment Model, The RAD Model -Evolutionary Process Models: Prototyping, The Spiral Model, The Concurrent Development Model-The Unified Process: Phases of The United Process, Unified Process Work Products.

#### **Unit-III: Requirements Engineering**

Requirements Engineering Tasks - Initiating The Requirements Engineering Process - Eliciting Requirements: Collaborative Requirements Gathering, Quality Function Deployment, User Scenarios, Elicitation Work Products - Negotiating Requirements - Validating Requirements.

### **Unit-IV: Design Engineering**

Design Process And Design Quality - Design Concepts - The Design Model: Data Design Elements, Architectural Design Elements, Interface Design Elements, Component-Level Design Elements, Deployment -Level Design Elements.

### **Unit-V:Software Ouality:**

Quality and Quality Concepts, Software Quality Assurance (SQA), Software Reviews, Formal Technical Reviews, Formal Approaches to SQA and SSQA, Software Reliability, The ISO 9000 Quality Standards, The SQA Plan.

### **Prescribed Text Book:**

1. Software Engineering – A Practitioner's Approach, Sixth Edition - Roger S Pressman, TATA McGrawHill: Chapters: 1,2,3,7,8 and 9)

### **Reference Books:**

- 1. Software Engineering Principles and Practice by Deepak Jain Oxford University Press
- 2. Sommerville, "Software Engineering", Eighth Edition, Pearson Education, 2007

**Student Activity:** Visit any financial organization nearby and prepare requirement analysis report 2. Visit any industrial organization and prepare risk chart.

14 Hrs

12Hrs

## 10Hrs

# 12Hrs



# A.G. & S.G. Siddhartha Degree College of Arts & Science

Vuyyuru-521165, Krishna District, Andhra Pradesh (An Autonomous institution in the jurisdiction of Krishna University, Machilipatam)

NAAC "A" Grade, ISO 9001:2015 Certified Institution

# DEPARTMENTOFCOMPUTERSCIENCE

Minutes of the meeting of Board of Studies in Computer Science for PG held on 06-04-2023 in theDepartmentofComputerScience.

Semester	:	11		Programme	:	: M.Sc (Comp. Sci.)
Course	:	Web	Technologies	Course Code	:	: 22CS2T3
Course delivery method	:	Class	room / Blended	Credits	:	: 4
Credits	:	4		CIA marks	:	: 30
No. of lecture hours / week	:	4		Semester end exar	n :	: 70
Total no. of lecture hours	:	60		Total marks	:	: 100
Year of Introduction	:	2020-	-21	Year of Revision	:	: 2022-23
% of revision	:	30%				
			Add	itions		Deletions
Course content suggested by	APSC	CHE				
Engineering & Process	twar	e	1	NIL		NIL
Unit-II: Process Models					VB S	Script:
Unit-III: Req Engineering	uiren	nents				
Unit-IV: Analysis Mo	odel					Analysis Model
Unit-V: Design Engi	neeri	ng	Design Enginee unit-4	ring moved to		
			Software Qualit	ty		
t is resolved and recommend the	chan	iges in t	the syllabus of courter S	rse code: 22CS2T3, Co	ourse	: Web Technologies

COMPUTER S	CIENCE	CSC-502C	2020-'21	B.Sc.(MPCs,	MCCs)
MESTER – V	PAPER -	- VI	Ma	x. Marks 70	
<u>el Paper</u> NO of Hours: 4	SOFTV	VARE ENGINI No Of Credits:	EERING 3		Pass Marks 2
	Se	ection $-A$	-		
Answer any <b>FIVE</b>	Questions. E	ach question car	ries <b>FIVE</b> Mar	ks	4x5=20M
		-			
1. Write about So	ftware Layere	ed Technology?			
2. Explain about l	Process Frame	ework?			
3. Explain about l	RAD Model?				
4. Explain Valida	ting Requiren	nents			
5. Explain about 1	Modularity?				
6. Write about So	ftware Reliab	ility?			
	Se	ection – B			
Answer any <b>FIVE</b>	Questions. Ea	ach question car	ries <b>TEN</b> Mark	s	5X10=50M
7. Explain about	CMMI?				
8. Explain about	Software My	vths?			
9. Explain about	Incremental	Model?			
10. Explain about	Spiral Model	?			
11. Explain about	Requirements	s Engineering Ta	isks?		
12. Write about de	sign concepts	in design engine	eering?		
13. Explain about	<b>Duality and O</b>	uality Concepts'	?		

COMPUTER SCIENCE	CSC-502C	2020-'21	B.Sc.(MPCs,MCCs)		
SEMESTER – V	PAPER – VI	Max. Marks 7	0 Pass Marks 28		
Guidelines for paper setting 'SOFTWARE ENGINEERING'					

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	1
Unit-4	1	1
Unit-5	1	2

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
An Autonomous college within the jurisdiction of Krishna University A.P, India.
(With Effect from Academic Year 2020-21)

			2020 (21		
	COMPUTER SCIENCE	CSC-502C	2020-*21	B.Sc.(MPCS,	,MCCs)
	SEMESTER – V	PAPER	R – VI	Max. Ma	arks 50
ľ	Lab List No. of Hours per week: 2	SOFTWARE ENG External: 25	GNEERING Internal	Pass l: 25	Marks 25 Credits
A. <u>ATN</u>	<u>M</u>				
1.	Objective of an ATM System	. 2. U	se-case Diagra	m of an ATM Sy	ystem
3.	Class Diagram of an ATM S	ystem 4. S	equence Diagra	m of an ATM S	ystem
5.	. Activity Diagram of an ATM	I System 6. S	tate Diagram of	an ATM Syster	n
7.	. Deployment Diagram of an A	ATM System 8. E	R Diagram of a	n ATM System	
<u>B. Libr</u>	ary management System				
1.	. Objective of Librarymanager	nent System.2. Use	-case Diagram	of Librarymanaş	gement
3.	. Class Diagram of Library ma	nagement System4	. Sequence Dia	gram of Library	management
5.	. Activity Diagram of Library	management System	n6. State Diagi	am of Library n	nanagement
7.	. Deployment Diagram of Libr	rary management S	ystem8. ER Dia	ıgram of Library	<sup>7</sup> managemen
<u>C. Barc</u>	code Reader				
1.	. Objective of Barcode Reader	2. U	se-case Diagra	m of Barcode Re	eader
3.	. Class Diagram of Barcode R	eader 4. S	equence Diagra	m of Barcode R	eader
5.	. Activity Diagram of Barcode	Reader 6. State Dia	gram ofBarcod	e Reader	
7.	. Deployment Diagram ofBarc	ode Reader 8. E	R Diagram ofB	arcode Reader	
D .Safe	Home System				
1.	. Objective of Safe Home Syst	em.	2. Use-case	Diagram of Safe	e Home Syste
3.	. Class Diagram of Safe Home	e System 4. Se	equence Diagra	m of Safe Home	e System
5.	. Activity Diagram ofSafe Hor	me System	6. State Dia	gram ofSafe Ho	me System
7.	. Deployment Diagram of Safe	e Home System	8. ER Diagi	am of Safe Hom	ne System
<u>E. Onli</u>	ne Book Store System				
1.	. Objective of Online Book St	ore System 2. U	se-case Diagra	m of Online Boo	ok Store Syste
3.	. Class Diagram of Online Boo	ok Store System 4.	Sequence Diag	ram of Online B	ook Store
5.	. Activity Diagram ofOnline B	Book Store System 6	5. State Diagrar	n ofOnline Bool	c Store Syster
7.	Deployment Diagram of Onl	ine Book Store Svs	tem 8. ER Dia	gram of Online	Book Store

An Autonomous college with in the jurisdiction of Krishna University A.P, India.

	(With Effect from Academic Year2020-21)						
	COMPUT	TER SCIENCE	CCSC-505C	2020-21	B. Cor	m (CA)	
SEMESTER – V		PAPER	$-\mathbf{V}$	Max. Mar	ks 70	Pass Marks 28	
Syllabus	<b>6 0</b>	BJECT ORIEN	TED PROGRAM	MING USING	<b>JAVA</b>		
Total Hrs: 60 NO. C		Of. Hours: 5		Crea	lits: 3		

#### UNIT-I

10Hrs

Fundamentals of Object - Oriented Programming: Introduction, Object Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Applications of OOP, Java features: UNIT-II

**Overview of Java Language:** Introduction, Simple Java program structure, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments. Constants, Variables & Data Types: Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Type casting, Getting Value of Variables, Operators.

### **UNIT-III**

Decision Making & Branching: Introduction, Decision making with if statement, Simple if statement, if-Else statement, Nesting of if-else statements, the else if ladder, the switch statement, the conditional operator. Looping: Introduction, while statement, do-while statement, for statement, Jumps in loops.

### **UNIT-IV**

Classes, Objects & Methods: Introduction, defining a class, adding variables, adding methods, creating objects, Accessing class members, Constructors, Method overloading, Method Overriding, Static members, Nesting of methods;

### **UNIT-V**

Inheritance: Extending a Class, Overriding Methods, Final Variables and Methods, Final Classes, Abstract Methods and Classes; Arrays, Strings And Vectors: Arrays, One-dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Vectors, Wrapper classes; Interfaces: Multiple Inheritance: Introduction, Defining interfaces, Extending interfaces, Implementing interfaces, Assessing interface variables:

### **Prescribed Text Book:**

1. E. Balaguruswamy, Programming with JAVA, A primer, 3e, TATA McGraw-Hill Company. **Reference Books** 

- 1. Programming In Java By Sachin Malhotra And Saurabh Choudhary From Oxford University Press
- 2. Object Oriented Programming Through Java by P. Radha Krishna, Universities Press
- 3. John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series,
- 4. Deitel&Deitel. Java TM: How to Program, PHI (2007)
- 5. Java Programming: From Problem Analysis to Program Design- D.S Mallik

#### 12 Hrs

12Hrs

### 12Hrs

# 14Hrs

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college with in the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year2020-21) **COMPUTER SCIENCE** CCSC-505C 2020-21 B. Com (CA) SEMESTER – V PAPER – V Max. Marks 70 Pass Marks 28 **OBJECT ORIENTED PROGRAMMING USING JAVA Syllabus Total Hrs: 60** NO. Of. Hours: 4 Credits: 3 Section- A Answer <u>FOUR</u> Questions. Each Question carries FIVE Marks. 4\*5=20M 1. What are the Applications of OOP? 2. What is a variable? Explain its rules? 3. Explain different data types in java? 4. Write about switch statement? 5. Explain about Constructors? 6. Differences between arrays and vectors? Section-B Answer <u>FIVE</u> the Questions. Each Question carries TEN Marks 5\*10=50M 7. Explain the Concepts of Object Oriented Programming? 8. Explain java Features? 9. Explain the structure of java program? 10. Explain different types of Operators in Java with Examples? 11. Explain about Decision Making Statements with examples? 12. Explain Looping statements with example? 13. Explain Method overloading with an example program? 14. Explain about inheritance?

An Autonomous college with in the jurisdiction of Krishna University A.P, India.

	(With Effect from Academic Year2020-21)					
	COMPUT	ER SCIENCE	CCSC-505C	2020-21	B. Com (CA)	
SEMESTER – V PA		PAPER – V	Max. Marks 70		Pass Marks 28	
Syllabus OBJ			ECT ORIENTED	PROGRAMM	AING USING JAVA	
Total Hrs: 60		NO. Of. Hours: 4		Credits: 3		

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	1	2
Unit-2	2	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section -A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college with in the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year2020-21)

	COMPUTER SCIENCE	CCSC-505C	2020-21	B. Com (CA)				
SEMESTER – VPAPER – V								
Lab Li	istOBJECT ORIENTED PR	OGRAMMING US	SING JAVA	Pass Marks 25				
No. of	Hours per week: 2 Exte	rnal: 25 In	nternal: 25	Credits: 2				
1.	Write a program to perform v	various String Operat	tions					
2.	Write a program to print the	given number is Arm	strong or not?					
3.	Prompt for the cost and sellin	g price of an article	and display th	e profit (or) loss				
4.	Write a program to print the	numbers given by co	mmand line a	rguments				
5.	Write a program on class and	object in java						
6.	Illustrate the method overridi	ng in JAVA						
7.	Write a program to find the S	imple Interest using	Multilevel Inl	neritance				
8.	Write a program to display m	atrix multiplication.						
9.	Write a program on interface in java							
10.	Write a program on inheritan	ce						

		· · · · · · · · · · · · · · · · · · ·			/
	COMPUTER	SCIENCE	CCSC 506C	2020-'21	B.Com.(C.A.)
SEMES'	TER – V	PAPER -	– VI		Max. Marks 70
<u>Syllabus</u>		DATA	BASE MANAG	EMENT SYS	STEMS
NO Of Ho	ours: 5	No Of	Credits: 3		Pass Marks 28
		. 0 1 1	1 ( 1 ) ( 1	1 0	• • • • • • • • •

**Course Objective:** Design & develop database for large volumes & varieties of data with optimized data processing techniques.

# Unit – 1: Database Systems Introduction

Database Systems: Introducing the database and DBMS, Why the database is important,

*Historical Roots:* Files and File Systems, Problems with File System, Data Management, Database Systems. *Data Models:* The importance of Data models, Data Model Basic Building Blocks, The evaluation of Data Models.

## Unit - II: Relational Database & Data Modelling

*The Relational Database Model:* A logical view of Data, Keys, Integrity Rules, Relational Set Operators, Indexes, Codd's relational database rules. *Entity Relationship Model:* The ER Model

Advanced Data Modelling: The Extended Entity Relationship Model, Entity clustering.

## **Unit-III: Normalization and Database Design**

*Normalization of database tables:* Database Tables and Normalization, The need for Normalization, The Normalization Process, High level Normal Forms, Normalization and database design, de normalization.

### **Unit-IV: Structured Query Language**

*Introduction to SQL:* Data Definition Commands, Data Manipulation Commands, Select queries, Advanced Data Definition Commands, Advanced Select queries, Virtual Tables, SQL Join Operators,

### **Unit-V: Procedural SQL**

Introduction to PL/SQL : Triggers, Stored Procedures, Pl/ SQL Stored Functions

# **Prescribed Text Book:**

1. Peter Rob, Carlos Coronel, Database Systems Design, Implementation and Management, Seventh Edition, Thomson (2007).

Reference Books:

- 3. Elimasri / Navathe, Fundamentals of Database Systems, Fifth Edition, Pearson Addison Wesley
- 4. Raman A Mata Toledo/Panline K Cushman, Database Management Systems, Schaum'sOutlibe series, Tata McGraw Hill (2007).
- 5. C.J.Date, A.Kannan, S.Swamynathan, An Introduction to Database Systems, Eight edition, Pearson Education (2006).
- 6. "DatabaseSystemConcepts" by AbrahamSilberschatz, Henry Korth, and S.Sudarshan, McGrawhill
- 7. Atul Kahate, Introduction to Database Management Systems, Pearson Education (2006).

### **Student Activity**:

1. Create your college database for placement purpose.

2. Create faculty database of your college with their academic performance scores

### 14 Hrs

# 10 Hrs

# 12 Hrs

12Hrs

### 12 Hrs

	COMPUTER SCIENCE	CCSC 506C	2020-'21	B.Com.(C.A.)
EME	STER – V PAPER	– VI		Max. Marks 70
<u>del P</u> Of H	aper DAT Iours: 5 N	A BASE MANAGH No Of Credits: 3	EMENT SYS	TEMS Pass Marks 28
Ans	swer any <u>FOUR</u> Questions. E	Section-A Each question carries	<b>FIVE</b> Marks	s <b>4x5=20</b> N
	1. Explain the Component	ts of Database Syste	m?	
	2. Explain Entity Relation	ship Model?		
	3. Write about Relational	Set Operators?		
	4. Describe BCNF?			
	5. Write about Special Fu	nctions?		
	6. Explain Stored Procedu	ires?		
Ans	swer any <u>FIVE</u> Questions. Ea	Section-B ach question carries '	<b>FEN</b> Marks	5X10=50
	7. What is File? Explain the second s	he problems with Fil	e system?	
	8. Explain any three differ	rent Data Models?		
	9. Explain E.F. CODDs' r	rules?		
	10. Explain Extended Entit	y Relationship Mode	el?	
	11. Explain the concept of	Normal Forms?		
	12. Explain different join o	perators?		
	13. Explain DDL and DMI	commands?		
	14. Explain about triggers?			

	COM	1PUTE	R SCIENCE	C	CCSC 506C	2020-'21	B.Com.(C.A.)
CEME	CTED	<b>X</b> 7		371	Mar Maulta 70	Daga	Maulza 20

SEMESTER – V

PAPER – VI Max. Marks 70 Pass Marks 28

# Guidelines for paper setting <u>'DATA BASE MANAGEMENT SYSTEMS'</u>

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	1
Unit-4	1	2
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An	Autonomous college within the	e jurisdiction of Kris	shna University	y A.P, India.	
	(With B	Effect from Acader	nic Year 202	0-21)	
	COMPUTER SCIENCE	CCSC-506P	2020-'21	B. COM(CA	<b>v</b> )
SEM	IESTER – V	PAPER – V	Ι	Max. Mar	ks 50
Lab	List DATA BASE MANAG	GEMENT SYSTEM	IS Pas	s Marks 25	
No.	of Hours per week: 2	External: 25	Internal: 2	25	Credits: 2
1. (	Creation of college database a	nd establish relatior	ships between	n tables	
2. I	Explain various data type in O	racle.	-		
3. 5	Show the structure of the Emp	table.			
4. 5	Show the structure of the DEP	T table.			
5. I	Explain the syntax of SELECT	Statement.			
6. (	Create a query to display the n	ame, job, hiredate a	and employee	number from e	emp table.
7.	Create a query to display uniq	ue jobs from the en	np table.		
8.	Create a query to display the e	empno as EMP#, er	ame as EMPI	OYEE and Hi	re_date from emp.
9.	Create a query to display all t	he data from the El	MP table. Sep	arate each colu	mn by a comma and
r	ame the column THE_OUTP	UT.			
10. 0	Create a query to display the n	ame and salary of e	mployees ear	ning more than	ı 2850.
11. 0	Create a query to display the n	ame and salary for	all employees	whose salary	is not in the range of
1	500 and 2850.				
12.	Display the employee name, j	ob and start date of	employees hi	red between I	1981, February 20
8	nd May 1, 1981. Order the qu	ery in ascending or	der of start da	ite	
13. I	Display the employee name an	d department numb	per of all the e	mployees in de	epartments 10 and 30
i	n alphabetical order by name.				
14.	List the name and salary of en	nployees who earn	more than 150	0 & are in de	partment 10 or 30.
15.	Display the name, salary and o	commissions and so	ort data in dese	cending order of	of salary and
C	commission.				
16.	Display the name and job title	of all employees w	ho do not hav	e a manager.	
17.	Display the name, job and sala	ary for all employed	es whose job i	s Clerk or Ana	lyst and their salary
1	s not equal to $1000, 3000 \text{ or } 5$	000.			< 1 •
18.	Display the names of all empl	oyees where the thi	rd letter of the	eir name is an	'A'.
19.1	Display the names of all emplo	byees who have two	• L's in their	name and are	in department 30 or
1 20	neir manager is $7/82$ .			· · · · · · · · · · · · · · · · · · ·	
20.	Display the name, salary and	commission for all	employees w	nose commissi	on amount is grater
t	nan their salary increased by I	10%.			
21.	Explain all the character funct	LIOHS.			
22. 22	Explain all the Data functions	JIIS.			
23.	ta Student database using the	following tables			

<u>Create Student database using the following tables.</u> STUDENT: Sno : primary key, numberSname : NOT NULL, varchar2 Address: Varchar2 COURSE:Sno : Foreign key.Course Name : varchar2

### Queries:

- 1. Alter table by adding a column fees in table COURSE.
- 2. Alter table by modifying the address to VARCHAR2(20)
- 3. Create a view on which the students who joined in one course only.

## PL/SQL.

- 1. Write A Pl/Sql Program To Swap Two Numbers Without Using Third Variable.
- 2. Write A Pl/Sql Program To Generate Multiplication Tables For Numbers 2,4 And 6
- **3.** Write A Pl/Sql Program To Display Sum Of Even Numbers And Sum Of Odd Numbers In The Given Range.
- 4. Write A Pl/Sql Program To Check The Given Number Is Pollinndrome Or Not.
- **5.** Write A Pl/Sql Program To Display Top 10 Rows In Emp Table Based On Their Job And Salary. **Reference Books:** 
  - 1. Oracle Pl/Sql By Example. Benjamin Rosenzweig, Elena Silvestrova, Pearsoneducation 3rd Edition
  - 2. Sql& Pl/Sql For Oracle 10g, Black Book, Dr.P.S. Deshpande

	COMPUTER SCIENCE	CCSC-507C	2020-'21	B.Com.(CA)			
SEME	ESTER – V	PAPER – VII		Max. Marks 70			
Syllabus	<u>s</u> WE	B TECHNOLOGIE	ËS				
NO Of Hours: 5		No of Credits: 3		Pass Marks 28			

### **Unit -I** Introduction to XHTML:

Introduction to HTML, Basic html, Document body text, Hyperlinks, Lists, Tables, Images, Frames, Forms and XHTML.

### Unit- II: CSS:

Cascading Style Sheets: Introduction, Defining your own styles, properties and values in styles, Formatting blocks of information, Layers.

Java Script: java Script, the basics, Variables, String Manipulations, Mathematical functions, Statements, Operators.

### Unit -III: Objects in Java Script & Dynamic HTML with Java Script

*Objects in Java Script:* Data and objects in java script, Regular expressions, Exception Handling, built in objects, Events.

Dynamic HTML with Java Script: Data validation, Rollover buttons, Moving images.

# Unit -IV: XML Defining Data for Web Applications

*XML:* Introduction to XML, Basic XML, document type definition, XML Schema, Document object model, Using XML parser.

### Unit -V:JSP:

JSP Lifecycle, Basic Syntax, EL (Expression Language), EL Syntax, Using EL Variables

### **Prescribed Books:**

## 1. Chris Bates, Web Programming Building Internet Application, Second Edition, Wiley

- 2.Head First Servlets and JSP 2<sup>nd</sup> Edition, Bryan Basham, Kathy Sierra
- 2. Uttam Kumar Roy, Web Technologies from Oxford University Press

COMPU	JTER SCIENCE	CCSC-507C	2020-'21	B.Sc.(MPCs)
ESTER – V	V PAPER	-VII		Max. Marks 70
<u>Paper</u>	WEB	TECHNOLOGI	ES	
Credits: 3		Pass Marks	28	
Answer <b>FC</b>	UROuestions Eac	<u>Section-</u> h Ouestion carries	<u>A</u> FIVE Marks	5 X 4=20M
				0111 2010
	1. Write about stru	acture of HTML D	ocument with	an example?
	2. Explain about li	ists in HTML?		
	3. Write about jav	a script statements	?	
	4. Write about Ro	llover buttons?		
	5. Describe XML	Elements?		
	, ,			
Answer <u>FI</u>	<u>VE</u> Questions. Each	<u>Section-B</u> n Question carries 7	<b>FEN</b> Marks.	5 X 10=50M
	7. Explain about h	yper links? Write a	about how to li	nk another pages
	8. What is Form?	Explain about form	ns with exampl	es
	9. What is CSS? H	Iow to design Case	ading style she	eet
	10. Explain about N	Aathematical Funct	tions	
	11. Explain about F	Regular Expression	S	
	12. Write about Dat	ta validations in D	HTML	
	13. Explain about I	Document Object N	Iodel	
	14. Explain about J	SP Lifecycle with	neat diagram	

	COMPUTER S	SCIENCE	CCSC-507C	2020-'21	B.COM(CA)	
SEME	ESTER – VI	PAPER	– VII Max	k. Marks 70	Pass Marks 28	

Guidelines for paper setting 'WEB TECHNOLOGIES'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college with in the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2019-'20)

	COMPUTER SCIENCE	CSC-301C	2020-21	B.Sc.(M	PCs, MCCs.)		
SEME	STER – III PAPER – III	Max. Mark	s 70		Pass Marks 28	1	
Syllabus	<b>OBJECT ORIENTE</b>	ED PROGRAMM	ING USING J	AVA	Total Hrs: 60		
NO. Of.	Hours: 4				Credits	: 3	
UNIT-I 15Hrs							
<b>Fundamentals of Object</b> – Oriented Programming: Introduction, Object Oriented paradigm, Basic							
Concepts of OOP, Benefits of OOP, Applications of OOP, Java features: <b>Overview of Java Language</b> :							
Introduc Iovo Vir	tion, Simple Java program str	a argumente <b>Con</b>	, Java Statemer	los & De	menting a Java F	rogram,	
Constant	tual Machine, Command Im	e arguments. <b>Con</b>	stants, variau es Giving Valu	e to Vari	alla Types. muc	ariables	
Type cas	sting, Getting Value of Variab	les: <b>Operators &amp;</b> ]	Expressions.		ables, scope of v	ariables,	
UNIT-II	[	ies, operators et l			15 Hrs		
Decision	Making & Branching: Intro	oduction, Decision	making with if	statemen	t, Simple if state	ment, if-	
Else stat	tement, Nesting of if-else sta	atements, the else	if ladder, the	switch st	atement, the con	nditional	
operator	. Looping: Introduction, Wh	nile statement, do-v	while statemen	t, for sta	tement, Jumps i	n loops.	
Classes,	Objects & Methods: Introdu	ction, Defining a cl	lass, Adding va	riables, A	dding methods,	Creating	
objects, A	Accessing class members, Con	nstructors, Method	overloading, St	atic mem	bers, Nesting of 1	nethods;	
		din Mathada Ein	-1. 7	J N / . / l J	10 Hrs	A 1	
Innerita Mathada	nce: Extending a Class, Over	riding Methods, Fin	al variables an	a Method	is, Final Classes,	Abstract	
Two –	dimensional arrays, Strings	Vectors Wrann	er classes: <b>In</b>	terfaces.	Multinle Inhe	all allay,	
Introduc	tion. Defining interfaces. E	xtending interfaces	. Implementin	g interfa	ces. Assessing	interface	
variables	x.	interfaces, Extending interfaces, Implementing interfaces, Assessing interface					
Variables;							
UNIT-I	V				10 Hrs		
UNIT-IV Multith	v <b>V</b> readed Programming: Intro	oduction, Creating	Threads, Exte	nding the	<b>10 Hrs</b> Threads, Stopp	oing and	
UNIT-IV Multithe Blocking	v V readed Programming: Intro g a Thread, Lifecycle of a Th	oduction, Creating rread, Using Threa	Threads, Exte d Methods, Th	nding the read Exc	<b>10 Hrs</b> Threads, Stopp eptions, Thread	oing and Priority,	
UNIT-I Multithe Blocking Synchron	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R	oduction, Creating pread, Using Threa cunnable' Interface.	Threads, Exte d Methods, Th	nding the read Exc	<b>10 Hrs</b> Threads, Stopp eptions, Thread	oing and Priority,	
UNIT-IV Multithe Blocking Synchron Managin	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions:	oduction, Creating pread, Using Threa Lunnable' Interface. Types of errors: C	Threads, Exte d Methods, Th Compile-time er	nding the read Exc rrors, Ru	<b>10 Hrs</b> e Threads, Stopp eptions, Thread ntime errors, Exc	oing and Priority, ceptions,	
UNIT-IV Multithi Blocking Synchron Managin Exceptio	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch St	oduction, Creating pread, Using Threa cunnable' Interface. Types of errors: C tatements, Using fir	Threads, Exte d Methods, Th Compile-time en nally statement	nding the read Exc rrors, Run	<b>10 Hrs</b> e Threads, Stopp eptions, Thread ntime errors, Exc	bing and Priority, ceptions,	
UNIT-IV Multithe Blocking Synchron Managin Exceptio UNIT-V	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch Su Programming: local and rem	oduction, Creating pread, Using Threa cunnable' Interface. Types of errors: C tatements, Using fir	Threads, Exte d Methods, Th Compile-time en ally statement	nding the read Exc rrors, Run ,	<b>10 Hrs</b> e Threads, Stopp eptions, Thread ntime errors, Exc <b>10 Hrs</b> ding Applet code	ping and Priority, ceptions,	
UNIT-IV Multithi Blocking Synchroi Managin Exceptio UNIT-V Applet I	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch St Programming: local and rem le: Initialization state, Running	oduction, Creating pread, Using Threa cunnable' Interface. Types of errors: C tatements, Using fin ote applets, Applets	Threads, Exte d Methods, Th Compile-time en hally statement s and Applicati	nding the read Exc rrors, Run ons, Build	<b>10 Hrs</b> e Threads, Stopp eptions, Thread ntime errors, Exc <b>10 Hrs</b> ding Applet code Display state <b>P</b> a	ping and Priority, ceptions, c, Applet	
UNIT-IV Multithe Blocking Synchrof Managin Exceptio UNIT-V Applet I Life cycl Introduc	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch So Programming: local and rem le: Initialization state, Runnin tion, Java API Packages, U	oduction, Creating pread, Using Threa cunnable' Interface. Types of errors: C tatements, Using fir ote applets, Applets ng state, Idle or sto Jsing System Pack	Threads, Exte d Methods, Th Compile-time en hally statement s and Applicati pped state, De kages, Naming	nding the read Exc rrors, Run ons, Build ad state,	10 Hrs e Threads, Stopp eptions, Thread ntime errors, Exc 10 Hrs ding Applet code Display state. Pa ons, Creating P	oing and Priority, ceptions, e, Applet <b>ackages:</b> ackages,	
UNIT-IV Multithi Blocking Synchroi Managin Exceptio UNIT-V Applet I Life cyc Introduc Accessin	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch St Programming: local and rem le: Initialization state, Runnin tion, Java API Packages, Ung a Package, using a Package	oduction, Creating pread, Using Threa cunnable' Interface. Types of errors: C tatements, Using fin ote applets, Applets ng state, Idle or sto Jsing System Pack e. Managing Input	Threads, Exte d Methods, Th Compile-time en hally statement s and Applicati pped state, De cages, Naming / <b>Output Files</b>	nding the read Exc crors, Run ons, Build ad state, convention in Java:	10 Hrs e Threads, Stopp eptions, Thread ntime errors, Exc 10 Hrs ding Applet code Display state. Pa ons, Creating P Introduction, Co	oing and Priority, ceptions, e, Applet <b>ackages:</b> ackages, oncept of	
UNIT-IV Multithe Blocking Synchrof Managin Exceptio UNIT-V Applet I Life cycl Introduc Accessin Streams,	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch So Programming: local and rem le: Initialization state, Runnin tion, Java API Packages, Ung a Package, using a Package Stream classes, Byte Strean	oduction, Creating pread, Using Threa tunnable' Interface. Types of errors: C tatements, Using fin ote applets, Applets ng state, Idle or sto Jsing System Pack the Classes, Input Sta	Threads, Exte d Methods, Th Compile-time en hally statement s and Applicati pped state, De kages, Naming / <b>Output Files</b> ream Classes,	nding the read Exc rrors, Run ons, Build ad state, convention in Java: Output State	10 Hrs e Threads, Stopp eptions, Thread ntime errors, Exc 10 Hrs ding Applet code Display state. Pa ons, Creating P Introduction, Co tream Classes, C	oing and Priority, ceptions, e, Applet <b>ackages:</b> ackages, oncept of Character	
UNIT-IV Multithi Blocking Synchrof Managin Exceptio UNIT-V Applet I Life cyc. Introduc Accessin Streams, Stream c	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch St Programming: local and rem le: Initialization state, Runnin tion, Java API Packages, Ung a Package, using a Package Stream classes, Byte Stream classes: Reader stream classes	oduction, Creating pread, Using Threa cunnable' Interface. Types of errors: C tatements, Using fin ote applets, Applets ng state, Idle or sto Jsing System Pack e. <b>Managing Input</b> n Classes, Input Str , Writer Stream class	Threads, Exte d Methods, Th Compile-time en hally statement s and Applicati pped state, De cages, Naming / <b>Output Files</b> ream Classes, Sess, Using Stree	nding the read Exc crors, Run ons, Build ad state, convention in Java: Output St eams;	10 Hrs e Threads, Stopp eptions, Thread ntime errors, Exc 10 Hrs ding Applet code Display state. Pa ons, Creating P Introduction, Co tream Classes, C	oing and Priority, ceptions, e, Applet <b>ackages:</b> ackages, oncept of Character	
UNIT-IV Multithe Blocking Synchrof Managin Exceptio UNIT-V Applet I Life cyc Introduc Accessin Streams, Stream c	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch St Programming: local and rem le: Initialization state, Runnin tion, Java API Packages, Ung a Package, using a Package Stream classes, Byte Stream classes: Reader stream classes	oduction, Creating pread, Using Threa cunnable' Interface. Types of errors: C tatements, Using fin ote applets, Applets ng state, Idle or sto Jsing System Pack e. <b>Managing Input</b> n Classes, Input Str , Writer Stream class	Threads, Exte d Methods, Th Compile-time en hally statement s and Applicati pped state, De kages, Naming / <b>Output Files</b> ream Classes, Using Street	nding the read Exc crors, Run ons, Build ad state, convention in Java: Output St eams;	10 Hrs e Threads, Stopp eptions, Thread ntime errors, Exc 10 Hrs ding Applet code Display state. Pa ons, Creating P Introduction, Co tream Classes, C	oing and Priority, ceptions, e, Applet <b>ackages:</b> ackages, oncept of Character	
UNIT-IV Multithi Blocking Synchrof Managin Exceptio UNIT-V Applet I Life cyc: Introduc Accessin Streams, Stream c	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch St Programming: local and rem le: Initialization state, Runnin tion, Java API Packages, Ung a Package, using a Packages, Ung a Package, Using a Package Stream classes, Byte Stream classes: Reader stream classes	oduction, Creating pread, Using Threa tunnable' Interface. Types of errors: C tatements, Using fin ote applets, Applets of state, Idle or sto Jsing System Pack e. <b>Managing Input</b> n Classes, Input Str , Writer Stream class	Threads, Exte d Methods, Th Compile-time en ally statement s and Applicati pped state, De cages, Naming / <b>Output Files</b> ream Classes, S sses, Using Stree	nding the read Exc crors, Run ons, Build ad state, convention in Java: Output St eams;	<b>10 Hrs</b> e Threads, Stopp eptions, Thread ntime errors, Exc <b>10 Hrs</b> ding Applet code Display state. <b>Pa</b> ons, Creating P Introduction, Co tream Classes, C	oing and Priority, ceptions, e, Applet <b>ackages:</b> ackages, oncept of Character	
UNIT-IV Multithe Blocking Synchron Managin Exceptio UNIT-V Applet I Life cyc Introduc Accessin Streams, Stream c Prescrib 1. E.Bala	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch St Programming: local and rem le: Initialization state, Runnir tion, Java API Packages, Ung a Package, using a Package, Stream classes, Byte Stream classes: Reader stream classes oed Text Book: aguruswamy, Programmingwi	oduction, Creating pread, Using Threa tunnable' Interface. Types of errors: C tatements, Using fin ote applets, Applets ng state, Idle or sto Jsing System Pach be. <b>Managing Input</b> n Classes, Input Str , Writer Stream class ith JAVA, A primen	Threads, Exte d Methods, Th Compile-time en hally statement s and Applicati pped state, De kages, Naming / <b>Output Files</b> ream Classes, Using Stro sses, Using Stro	nding the read Exc crors, Run ons, Build ad state, convention in Java: Output St eams;	10 Hrs e Threads, Stopp eptions, Thread ntime errors, Exc 10 Hrs ding Applet code Display state. Pa ons, Creating P Introduction, Co tream Classes, C	oing and Priority, ceptions, e, Applet <b>ackages:</b> ackages, oncept of Character	
UNIT-IV Multithi Blocking Synchron Managin Exceptio UNIT-V Applet I Life cyc: Introduc Accessin Streams, Streams, Stream c Prescrib 1. E.Bala Referent	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch St Programming: local and rem le: Initialization state, Runnin tion, Java API Packages, Ung a Package, using a Packages, Ung a Package, using a Package Stream classes, Byte Stream classes: Reader stream classes oed Text Book: aguruswamy, Programmingwince Books Programming In Java By Sach	oduction, Creating pread, Using Threa cunnable' Interface. Types of errors: C tatements, Using fin ote applets, Applets of state, Idle or sto Jsing System Pack e. <b>Managing Input</b> n Classes, Input Str , Writer Stream class ith JAVA, A primen	Threads, Exte d Methods, Th Compile-time en ally statement s and Applicati pped state, De cages, Naming / <b>Output Files</b> ream Classes, we sses, Using Streas c, 3e, TATA M	nding the read Exc crors, Run ons, Buile ad state, conventie <b>in Java:</b> Output St eams; cGraw-H	<b>10 Hrs</b> Threads, Stopp eptions, Thread ntime errors, Exc <b>10 Hrs</b> ding Applet code Display state. <b>Pa</b> ons, Creating P Introduction, Co tream Classes, C ill Compan Oxford UP	oing and Priority, ceptions, e, Applet <b>ackages:</b> ackages, oncept of Character	
UNIT-IV Multithi Blocking Synchron Managin Exceptio UNIT-V Applet I Life cyc Introduc Accessin Streams, Stream c Prescrib 1. E.Bala Referent 1. P 2. C	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch St Programming: local and rem le: Initialization state, Runnin tion, Java API Packages, U ng a Package, using a Package Stream classes, Byte Stream classes: Reader stream classes oed Text Book: aguruswamy, Programmingwi ce Books Programming In Java By Sach Object Oriented Programming	oduction, Creating pread, Using Threa cunnable' Interface. Types of errors: C tatements, Using fin ote applets, Applets ng state, Idle or sto Jsing System Pack Managing Input n Classes, Input Str , Writer Stream class ith JAVA, A primen in Malhotra And Sa Through Java by P	Threads, Exte d Methods, Th Compile-time en hally statement s and Applicati pped state, De kages, Naming / <b>Output Files</b> ream Classes, Using Stro c, 3e, TATA M aurabh Choudh c Radha Krishn	nding the read Exc crors, Run ons, Build ad state, conventi- in Java: Output St eams; cGraw-H ary From a, Univer	<b>10 Hrs</b> e Threads, Stopp eptions, Thread ntime errors, Exc <b>10 Hrs</b> ding Applet code Display state. <b>Pa</b> ons, Creating P Introduction, Co tream Classes, C	oing and Priority, ceptions, e, Applet <b>ackages:</b> ackages, oncept of Character	
UNIT-IV Multithi Blocking Synchrof Managin Exceptio UNIT-V Applet I Life cyc: Introduc Accessin Streams, Streams, Streams 1. E.Bala Referent 1. P 2. C 3. J	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch St Programming: local and rem le: Initialization state, Runnin tion, Java API Packages, Ung a Package, using a Packages, Ung a Package, using a Package Stream classes, Byte Stream classes: Reader stream classes bed Text Book: aguruswamy, Programmingwing ce Books Programming In Java By Sach Object Oriented Programming ohn R. Hubbard, Programming	oduction, Creating pread, Using Threa cunnable' Interface. Types of errors: C tatements, Using fin ote applets, Applets of state, Idle or sto Jsing System Pack Managing Input th Classes, Input Str , Writer Stream class ith JAVA, A primer in Malhotra And Sa Through Java by P g with Java, Second	Threads, Exte d Methods, Th Compile-time en ally statement s and Applicati pped state, De cages, Naming / <b>Output Files</b> ream Classes, we sses, Using Streases, Using Streases, Using Streases, Cartara M curabh Choudh Choudh Choudh Chadha Krishn d Edition, Scha	nding the read Exc rrors, Run ons, Build ad state, in Java: Output St eams; cGraw-H ary From a, Univer um's out	10 Hrs Threads, Stopp eptions, Thread ntime errors, Exa 10 Hrs ding Applet code Display state. Pa ons, Creating P Introduction, Co tream Classes, C ill Compan Oxford UP rsities Press line Series,	oing and Priority, ceptions, e, Applet <b>ackages:</b> ackages, oncept of Character	
UNIT-IV Multithe Blocking Synchron Managin Exception UNIT-V Applet I Life cycl Introduc Accessin Streams, Stream c Prescrib 1. E.Bala Referent 1. P 2. C 3. J 4. E	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch St Programming: local and rem le: Initialization state, Runnin tion, Java API Packages, U ag a Package, using a Package Stream classes, Byte Stream classes: Reader stream classes oed Text Book: aguruswamy, Programmingwing ce Books Programming In Java By Sach Object Oriented Programming ohn R. Hubbard, Programming ohn R. Hubbard, Programming	oduction, Creating pread, Using Threa cunnable' Interface. Types of errors: C tatements, Using fin ote applets, Applets ng state, Idle or sto Jsing System Pack Managing Input n Classes, Input Str , Writer Stream class ith JAVA, A primer in Malhotra And Sa Through Java by P g with Java, Second to Program, PHI (2)	Threads, Exte d Methods, Th Compile-time en hally statement s and Applicati pped state, De kages, Naming / <b>Output Files</b> ream Classes, Using Stro c, 3e, TATA M aurabh Choudh Choudh Choudh Chadha Krishn d Edition, Scha	nding the read Exc crors, Run ons, Build ad state, conventi- in Java: Output St eams; cGraw-H ary From a, Univer um's out	10 Hrs e Threads, Stopp eptions, Thread ntime errors, Exc 10 Hrs ding Applet code Display state. Pa ons, Creating P Introduction, Co tream Classes, C ill Compan Oxford UP rsities Press line Series,	oing and Priority, ceptions, ceptions, c, Applet <b>ackages:</b> ackages, oncept of character	
UNIT-IV Multithi Blocking Synchrof Managin Exceptio UNIT-V Applet I Life cyc: Introduc Accessin Streams, Streams, Streams 1. E.Bala Referent 1. P 2. C 3. J 4. E 5. J	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch St Programming: local and rem le: Initialization state, Runnin tion, Java API Packages, U ag a Package, using a Package Stream classes, Byte Stream classes: Reader stream classes bed Text Book: aguruswamy, Programmingwi ce Books Programming In Java By Sach Object Oriented Programming ohn R. Hubbard, Programmin Deitel&Deitel. Java TM: How ava Programming: From Prob	oduction, Creating pread, Using Threa aunnable' Interface. Types of errors: C tatements, Using fin ote applets, Applets ag state, Idle or sto Jsing System Pack be. <b>Managing Input</b> in Classes, Input Str Writer Stream class ith JAVA, A primer in Malhotra And Sa Through Java by P ag with Java, Secon- to Program, PHI (20 olem Analysis to Pro-	Threads, Exte d Methods, Th Compile-time en ally statement s and Applicati pped state, De cages, Naming / <b>Output Files</b> ream Classes, we sses, Using Streaction c, 3e, TATA M aurabh Choudh Choudh Choudh Choudh Chadha Krishn d Edition, Scha 2007) ogram Design-	nding the read Exc rrors, Run ons, Build ad state, in Java: Output St eams; cGraw-H ary From a, Univer um's out D.S Mall	10 Hrs e Threads, Stopp eptions, Thread ntime errors, Exa 10 Hrs ding Applet code Display state. Pa ons, Creating P Introduction, Co tream Classes, C ill Compan Oxford UP rsities Press line Series, lik	oing and Priority, ceptions, e, Applet <b>ackages:</b> ackages, oncept of Character	
UNIT-IV Multithi Blocking Synchron Managin Exceptio UNIT-V Applet I Life cycl Introduc Accessin Streams, Stream c Prescrib	V readed Programming: Intro g a Thread, Lifecycle of a Th nization, Implementing the 'R ng Errors And Exceptions: on handling, Multiple Catch So Programming: local and rem le: Initialization state, Runnir tion, Java API Packages, Ung a Package, using a Package, Stream classes, Byte Stream classes: Reader stream classes ed Text Book: aguruswamy Programmingwi	oduction, Creating pread, Using Threa cunnable' Interface. Types of errors: C tatements, Using fir ote applets, Applets of state, Idle or sto Jsing System Pack be <b>Managing Input</b> on Classes, Input Str , Writer Stream class	Threads, Extend Methods, The d Methods, The Compile-time en- nally statement s and Applicati pped state, De kages, Naming / <b>Output Files</b> ream Classes, Using Stream c 3e, TATA M	nding the read Exc rrors, Run ons, Buile ad state, conventie <b>in Java:</b> Output St eams;	<b>10 Hrs</b> Threads, Stopp eptions, Thread ntime errors, Exc <b>10 Hrs</b> ding Applet code Display state. <b>Pa</b> ons, Creating P Introduction, Co tream Classes, C	oing and Priority, ceptions, e, Applet <b>ackages:</b> ackages, oncept of Character	

COMPUT	ER SCIENCE	CSC-301C	2020-21	B.sc(MPCs,MCCs)
EMESTER – III	PAPER – III	Ma	x. Marks 70	Pass Marks 28
llabus: al Hrs: 60	OBJECT ORII NO. O	ENTED PROGE f. Hours: 4	RAMMING U	SING JAVA Credits: 3
tion- A	P. Questions For	h Question com	ing EIVE Max	dra 4*5-20M
1.Explain the st	<u>R</u> Questions. Eac	rogram?		rks. 4 <sup>+5</sup> =20101
2.Explain differ	ent data types in ja	ava?		
3.Explain about	Constructors?			
4.Differences be	etween arrays and	vectors?		
5.Explain about	Exception handlin	ng?		
6.Explain the ap	oplet life cycle?			
		Section-	B	
		<u>Beetion-</u>		
wer <u>FIVE</u> the Q	uestions. Each Qu	uestion carries <b>T</b>	EN Marks	5*10=50M
7.Explain the Co	oncepts of Object-	Oriented Program	nming?	
8.Explain java F	Features?			
9.Explain Loop	ing statements with	h example		
10.Explain Met	hod overloading w	vith an example p	rogram	
11.Explain abou	at inheritance			
12.Explain the c	concept of interfac	e?		
13.Explain life	cycle of a thread?			
14.Explain abou	it Byte Stream Cla	sses?		

An Autonomous college with in the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2018-'19)

	COMPUT	ER SCIENCE	CSC-301C	2020-21	B. Com	(CA)
SEME	STER – III	PAPER	l – III	Max. Mark	as 70	Pass Marks 28
Syllabu	S	<b>OBJECT ORIE</b>	ENTED PROGRA	MMING USIN	NG JAVA	
Total H	rs: 60	NO.	Of. Hours: 4		Credit	s: 3

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

	COMPUTER SCI	ENCE	CSC-301C	2020-21	B.Sc.(MPCS&MCCS
EMES	TER – III	PAPE	R – III	Max. M	arks:50
List	OBJECT ORIEN	TED PRC	GRAMMINO	G USING JAVA	Pass Marks 25
of Ho	urs per week: 2	Externa	al: 25	Internal: 25	Credits: 2
.Write	e a program to perf	orm variou	us String Opera	ations	
.Write	e a program to prin	t the given	number is Arr	nstrong or not?	
.Pron	pt for the cost and	selling pri	ice of an article	and display the	profit (or) loss
.Write	e a program to prin	t the numb	pers given by co	ommand line arg	uments
5.Write	e a program on clas	ss and obje	ect in java		
5.Illust	rate the method ov	erriding in	I JAVA		
7.Write	e a program to find	the Simpl	e Interest using	g Multilevel Inhe	ritance
8.Write	e a program to disp	lay matrix	multiplication		
9.Write	e a program to imp	lement Ex	ception handlir	ıg	
l0.Wri	te a program to cre	ate packag	ges in Java		
11.Wri	te a program on int	terface in j	ava		
12.Wri	te a program to Cro	eate Multi	ple Threads in .	Java	
3. Wr	ite a program to as	sign priori	ties to threads	in java	

An Autonomous college with in the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2019-'20)

	COMPUT	ER SCIENCE	ICT-II-301C	2020-'21	B.A, B.Com, B.Sc.
SEME	STER – III	PAPER – II	Max. Marks 50	Pass Marks 20	Total Hrs 30
Syllabu	is Interne	t Fundamentals	and Web Tools	NO. Of H	Irs: 2 Credits: 2

### Unit-I:

**Fundamentals of Internet :** Networking Concepts, Data Communication – Types of Networking, Internet and its Services, Internet Addressing - Internet Applications - Computer Viruses and its types - Browser -Types of Browsers.

### Unit-II:

Internet applications: Using Internet Explorer, Standard Internet Explorer Buttons, Entering a Web Site Address, Searching the Internet – Introduction to SocialNetworking: twitter, tumbler, LinkedIn, face book, flicker, Skype, yelp, vimeo, yahoo, Google+, YouTube, WhatsApp, etc. **6Hrs** 

### **Unit-III :**

E-mail :Definition of E-mail - Advantages and Disadvantages – User-Ids, Passwords, Email Addresses, Domain Names, Mailers, Message Components, MessageComposition, Mail Management, Email Inner Workings.

### Unit IV:

**WWW**- Web Applications, Web Terminologies, Web Browsers, URL – Components of URL, Searching WWW – Search Engines and Examples

### Unit-V:

**Basic HTML:** Basic HTML – Web Terminology – Structure of a HTML Document –HTML, Head and Body tags – Semantic and Syntactic Tags – HR, Heading, Font, Image and Anchor Tags –Different types of Lists using tags – Table Tags, Imageformats – Creation of simple HTML Documents.

### **Reference Books :**

1. In-line/On-line : Fundamentals of the Internet and the World Wide Web, 2/e - by Raymond Greenlaw and Ellen Hepp, Publishers : TMH

# 6Hrs

6Hrs

## 6Hrs

#### **6Hrs**

	AG & SG SIDDHARTHA	COLLEGE OF A	RTS AND	SCIENCES	S - VUYYURU.
	An Autonomous college w	with in the jurisdict	ion of Krisł	nna Universi	ty A.P, India.
	(With	Effect Form Acad	demic Year	2019-'20) B A	R Com R Sc
	SEMESTED III DADED	I May Mark	2020- 21	Morlzet 20	Total: 30 Urs
	SEWIESTER - III TATER -		) JU 1 455	WIAIKS. 20	10tal. 30 1115
	Modal Paper: Internet Fun	damentals and	Web Too	ols NO. O	f Hrs: 2Credits: 2
		Section-	<u>A</u>		
nsw	er <u>FOUR</u> Questions. Each Que	stion carries FIV	E marks.		4X5=20M
1.	Explain types of Browsers?				
2.	Explain Internet Applications.				
3.	Write a short note on Internet E	Explorer?			
4.	Explain User Id and Password	of e-mail?			
5.	Explain Advantages and disadv	vantages of electro	nic mail.4		
6.	Explain about WWW?				
7.	Explain briefly about web appli	ication.			
8.	Explain Head and Body tags in	HTML Document	t?		
	<u>S</u>	ection- B			
nsw	er Any <u>THREE</u> Questions. Ea	ch Question carri	ies TEN Ma	arks.	3×10=30
9.	Explain types of Networking?				
10	. Explain Internet Services?				
11	. Explain any 10 Social Net Wor	rking Sites			
12	2. Explain Message Composition.				
13	Explain different types of Searc	ch Engines.			

14. Explain different lists in HTML.

An Autonomous college with in the jurisdiction of Krishna University A.P, India. (With Effect Form Academic Year 2019-'20)

	COMPUTER SCIENCE	ICT-II-301	2020-'21	B.A, B.Com, B.Sc.
SEMES'	TER – III	PAPER – II		Max. Marks 50

### Guidelines for paper setting 'INTERNET FUNDAMENTALS AND WEB TOOLS'

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	1
Unit-3	2	1
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us
An Autonomous college with in the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2019-'20)

	COMPUTE	R SCIENCE	CCSC-303C	2020-'21	<b>B.Com.</b> (C.A)	
SEM	IESTER – III	PAPER – III	Max. Marks 70	Pass	s Marks 28 Total Hrs: 60	

#### **Syllabus Office Automation Tools** NO. Of. Hours: 5Credits:4

## Unit-I:

MS-Excel: features of Ms-Excel, Parts of MS-Excel window, entering and editing data in worksheet, number formatting in excel, different cell references, how to enter and edit formula in excel, auto fill and custom fill, printing options.

## Unit-II:

Formatting options: Different formatting options, change row height, formulae and Functions,

Functions: Meaning and advantages of functions, different types of functions available in Excel.

## Unit-III:

**Charts:** Different types of charts, Parts of chart, chart creation using wizard, chart operations, data maps, graphs, data sorting, filtering. Excel sub totals, scenarios, what-if analysis.

Macro: Meaning and advantages of Macros, creation, editing and deletion of macros - Creating a macro, how to run, how to delete a macro.

## **Unit-IV:**

MS Access: Creating a Simple Database and Tables: Features of Ms-Access, Creating a Database, Parts of Access. Tables: table creation using design view, table wizard, data sheet view, import table, link table. Forms: The Form Wizard, design view, columnar, tabular, data sheet, chart wizard.

## Unit- V:

Finding, Sorting and Displaying Data: Queries and Dynasts, Creating and using select queries, Returning to the Query Design, Multi-level sorts, Finding incomplete matches, showing All records after a Query, saving queries - Crosstab Queries. Printing Reports: Form and Database Printing..

## **Reference Books:**

1.Ron Mansfield, Working in Microsoft Office, Tata McGraw Hill(2008) 2.Ed Bott, Woody Leonhard, Using Microsoft Office 2007, Pearson Education(2007) 3. Sanjay Saxsena, Microsoft Office, 4. Microsoft Office, BPB Publications

# 12 Hrs

12Hrs

## 12Hrs

# 12Hrs

## 12Hrs

	COMPUTER SCIENCECCSC-303C2020-'21B.Com. (C.A)								
SEN/	COMPUTE	R SCIENCE	CCSC-303C	2020-*21	B.Com. (C	C.A)			
SEIV	IE51ER – III	FAFER – III	wax. warks 70	r as	s marks 20				
Mod	<u>el Paper</u> Office	Automation To	ols NO (	Of Hours: 5	Credits: 4				
			Section- A	<u>4</u>					
Answ	ver <u>FOUR</u> Que	stions. Each Qu	estion carries FIVI	E Marks.	4*	5=20M			
1									
1. 2	What are adv	antages of Europ	ions?						
2. 3.	Explain what	is sorting?	10115 :						
4.	Explain how	to delete Macro?	)						
5.	Write any 5 F	Features of Acces	ss?						
6.	Describe Que	ery used in MS-A	access?						
			Section- ]	<u>B</u>					
Answ	ver <u>FIVE</u> the Q	Questions. Each	Question carries Tl	EN Marks.	5*	-10=50M			
7.	Explain Parts	of Excel Sheet	with neat Diagram.						
8.	Explain Auto	Fill and Custom	Fill Options in Exce	1.					
9.	Explain diffe	erent types of Fu	nctions available.						
1(	0. Explain diffe	erent Formatting	options.						
1	1. What is Char	t? Explain differ	ent types of Charts.						
12	2. What is Mac	ro? Explain Crea	ating and Editing of I	Macro.					
13	3. What is Form?	Explain Creating	Form using Form Wiz	zard.					
14	4. Explain How	to Create a Que	ry, Showing, all reco	rds after Query	y and Saving	Query.			
	•					~ *			

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

COMPUTER SCIENCE	CCSC-303C	2019-'20	B.Com. (C.A)
------------------	-----------	----------	--------------

SEMESTER – III PAPER – III Max. Marks 70

## Guidelines for paper setting <u>'OFFICE AUTOMATION TOOLS'</u>

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2019-'20)

	COMPUTE	R SCIENCE	CCSC-303P	2020-'21	B.Com. (C.A)
SEM	IESTER – III	PAPER – III	Max. Marks 50	Pass Marks	20 Total Hrs: 30

Lab list Office Automation Tools

## Ms-Word

- 1. Create a vesting Card
- 2. Create a template for organization using Header & Footer
- 3. Mail merge Procedure

## Ms-Excel

1. Create an electronic spreadsheet in which you enter the following decimal numbers and convert into Octal, Hexadecimal and Binary numbers vice versa. Decimal Numbers: 35, 68, 95, 165, 225, 355, 375, 465. Binary Numbers: 101, 1101, 111011, 10001, 110011001, 111011111.

2. The ABC Company shows the sales of different products for 5 years. Create column chart, 3D-column and Bar chart for the following data
YEAR PRODUCT-1 PRODUCT-2 PRODUCT-3 PRODUCT-4
2003 1000 800 900 10002004 800 80 500 9002005 1200 190 400 8002006 400 200 300 1000
2007 1800 400 400 1200

3. Create a suitable examination data base and find the sum of the marks(total) of each student and respective class secured by the student rules:
Pass if marks in each subject >=35
Distinction if average>=75
First class if average>=60 but <75</li>
Second class if average>=50 but <60</li>
Third class if average>=35 but <50</li>
Fail if marks in any subject is <35</li>
Display average marks of the class, subject wise and pass percentage

4. Create an electronic spread sheet in which you enter date and time functions in Excel

5. Create a electronic spread sheet in statistical and mathematical functions in Excel

## **MS-PowerPoint**

1. Make a Power point presentation on your strengths, weaknesses, hobbies, factors that waste your time.

2. Make a Power point presentation to represent your College profile.

3. Make a Power point presentation of all the details of the books that you had studied in B.Sc. First Year.

4. Create a Presentation without Animation.

## **MS-ACCESS**

1. Create a database using MS-ACCESS with at least 5 records table1 structure: register number, name, dob, gender, class table2 structure: register number m1 m2 m3 m4 m5 total maintain the relationship between two tables with register number as a primary key and answer the following quarries: show the list of students with the following fields as one query register number name gender total marks

2. Maintain the relationship between above two tables with register number as a primary key and answer the following reports: reports must have following columns report1 with register number, name, marks of all subjects and 90 hrs (3 hrs/ week) computer science 10 of 44 total report2 with register number, total , percentage.

3. Create a database using ms-access with at least 5 records table1 structure: emp-code emp-name age gender dob table2 structure: emp-code basic-pay maintain the relationship between two tables with emp-code as a primary key generate the following reports: report1: emp-code emp-name basic-pay da,hra gross-salary report2: emp-code emp-name age gender gross-salary

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P. India. (With Effect from Academic Year 2020-21)

COMPUTER SCIENCE	CSC-101C	2020-'21	B.Sc (MPCs & MCCs)			
SEMESTER – I	PAPER – I		Max. Marks 70			
Syllabus: Problem Solving in 'C'						
NO of Hours: 4	No Of Credit	s: 3	Pass Marks 28			

## **UNIT-I: General Fundamentals** Programming Languages

General Fundamentals: Introduction to computers: Block diagram of a computer, characteristics and limitations of computers, applications of computers, types of computers, computer generations. Introduction to Algorithms and Programming Languages: Algorithm - Key features of Algorithms, Flow Charts, Programming Languages – Generations of Programming Languages – Structured Programming Design Implementation of Languageand Correct. Efficient and MaintainablePrograms.

## **UNIT- II: Introduction To C & Decision Making control Statements**

Introduction to C: Introduction – Structure of C Program – Writing the first C Program – File used in C Program - Compiling and Executing C Programs - Using Comment, Keywords - Identifiers -Basic Data Types in C – Variables – Constants – I/O Statements in C-Operators in C- Programming Examples.

Decision Control and Looping Statements: Introduction to Decision Control Statements-Conditional Branching Statements - Iterative Statements - Nested Loops - Break and Continue Statement – Goto Statement.

## **UNIT III: Arrays**

Arrays: Introduction – Declaration of Arrays – Accessing elements of the Array – Storing Values in Array- Operations on Arrays - one dimensional, two dimensional and multi dimensional arrays, character handling and strings.

## **UNIT-IV:Functions & Structures**

Functions: Introduction – using functions – Function declaration/ prototype – Function definition – function call - return statement - Passing parameters - Scope of variables - Storage Classes -Recursive functions.

Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Arrays of Structures – Structures and Functions– Union – Arrays of Unions Variables – Unions inside Structures – Enumerated DataTypes.

## **UNIT-V:Pointes&Files**

Pointers: Understanding Computer Memory – Introduction to Pointers – declaring Pointer Variables - Pointer Expressions and Pointer Arithmetic - Null Pointers -- Memory Allocation in C Programs -Memory Usage – Dynamic Memory Allocation – Drawbacks of Pointers

Files: Introduction to Files – Using Files in C – Reading Data from Files – Writing Data to Files – Detecting the End-of-file - Error Handling during File Operations - Accepting Command Line Arguments.

## BOOKS

- 1. E Balagurusamy Programming in ANSIC Tata McGraw-Hillpublications.
- 2. Brain W Kernighan and Dennis M Ritchie The 'C' Programming language" -Pearsonpublications.
- 3. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publications.
- 4. YashavantKanetkar Let Us 'C' BPBPublications.

## 13Hrs

10 Hrs

## 15Hrs

## 10Hrs

# 12Hrs

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-'21) **COMPUTER SCIENCE CSC-101C** 2020-'21 **B.Sc(MPCs, MCCs)** SEMESTER – I PAPER – II Max. Marks 70 Pass Marks 28 <u>Syllabus</u>Problem Solving in 'C' NO. Of. Hours: 4Credits:3 Section- A Answer FOUR Questions. Each Question carries FOUR Marks. 4\*5=20M 1. Explain different types of programming languages? 2. Explain about Data types in C? 3. Write about Break and Continue Statement? 4. Explain one dimensional array with example? 5. Explain Storage Classes in C? 6. Explain dynamic memory allocation? Section-B Answer <u>FIVE</u> the Questions. Each Question carries EIGHT Marks 5\*10=50M 7. Draw and Explain Block Diagram of Computer? 8. Explain about Algorithm and Flowchart with Examples? 9. Explain decision making Looping statements with examples? 10. Explain Structure of C Program with Example? 11. Write about two dimension arrays? Give an example program? 12. Write Passing Parameters Techniques in Functions? 13. Difference between structures and unions? 14. What is File? Explain different File Modes?

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-'21)

	COMPUTER SCIENCE	CSC-101C	2020-'21	B.Sc(MPCs,MCCs)
--	------------------	----------	----------	-----------------

 $\overline{SEMESTER} - I$ 

PAPER – I

Max. Marks 70

## Guidelines for paper setting 'Problem Solving in C'

Unit wise weight age of Marks	Section-A (Short answer questions)	Section-B (essay questions)
Unit-I	1	2
Unit-II	2	2
Unit-III	1	1
Unit-IV	1	2
Unit -V	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-'21)

	COMPUTE	R SCIEN	ICE	CSC-101	Р	2020	-'21	B.Sc. (MPCs, MCCs.)	
SEN	IESTER – I	PAPER	l − I	Max.	Mark	s: 50	Pass 1	Marks 25	
No. o	f Hours per wo	eek: 2	Exte	rnal: 25	In	ternal:	25	Credits: 2	
Lab List:Problem solving in C LAB									

- 1. Write a program to check whether the given number is Armstrong ornot.
- 2. Write a program to find the sum of individual digits of a positiveinteger.
- 3. Write a program to generate the first n terms of the Fibonaccisequence.
- 4. Write a program to find both the largest and smallest number in a list of integervalues
- 5. Write a program to demonstrate refection of parameters in swapping of two integer values using Call by Value &Call byAddress
- 6. Write a program that uses functions to add twomatrices.
- 7. Write a program to calculate factorial of given integer value using recursivefunctions
- 8. Write a program for multiplication of two N X Nmatrices.
- 9. Write a program to perform various stringoperations.
- 10. Write a program to search an element in a given list ofvalues.
- 11. Write a program to sort a given list of integers in ascendingorder.
- 12. Write a program to calculate the salaries of all employees using *Employee (ID, Name, Designation, Basic Pay, DA, HRA, Gross Salary, Deduction, Net Salary)* structure.

DA is 30 % of BasicPay HRA is 15% of BasicPay Deduction is 10% of (Basic Pay +DA) Gross Salary = Basic Pay + DA+HRA

- Net Salary = Gross Salary -Deduction
- 13. Write a program to illustrate pointerarithmetic.
- 14. Write a program to read the data character by character from afile.
- 15. Write a program to create *Book (ISBN, Title, Author, Price, Pages, Publisher*)structure and store book details in a file and perform the following operations

Add bookdetails

Search a book details for a given ISBN and display book details, ifavailable Update a book details usingISBN

Delete book details for a given ISBN and display list of remainingBooks

## An Autonomous college within the jurisdiction of Krishna University A.P, India.

COMPUTER SCIENCECCSC-103C2020-'21B.Com(CA)						
SEMESTER - IPAPER - IMax. Marks 70						
Syllabus: INTRODUCTION TO INFORMATION TECHNOLOGY						
NO of Hours: 4 No Of Credits: 3 Pass Marks 28						
Unit – I: Database Systems Introduction Computer Basics 13H'r						
Introduction, Evolution of Computers, Generations of Computers, Classification of Computers, Comput						
Concepts, Applications Of Computers, Central Processing Unit.						
Memory Representation:						
Random Access Memory, Read Only Memory, Magnetic Tape, Magnetic Disk, Types of Magnetic Disks, Type						
of Optical Disk, USB.						
UNIT-II: Input/output Devices & Operating Systems 15H'rs						
Input/output Devices: Types of Input Devices, Types Of Output Devices, Programming Languages: Types						
Programming Languages, Generations of Programming Languages						
Software: Definition Of Software, Relationship Between Software And Hardware, Categories Of Software						
<b>Operating Systems:</b> Introduction, Types of Operating Systems						
UNIT III. Information Tasky along & Informat Amplications, 1011/10						
Information Technology: Components Of Information Technology Role Of Information Technology						
Information Technology In Business Manufacturing Mobile Computing Public Sector, Defence Sectors Medi						
Education Publication						

Internet Applications: Evolution Of Internet, Basic Internet Terms, Internet Applications.

Introduction, E-mail, Information Browsing Service, The World Wide Web, Information Retrieval from the World Wide Web, Other Facilities Provided by Browsers, Audio on the Internet, Pictures, Animation and Video viaInternet

### **UNIT-IV: Data Communications**

Introduction, Data Communication, Components Of Data Communication, Data Transmission Mode, Analog To Digital Data Transmission, Data Communication Measurement, Transmission Media, Guided/Wired Media, Unguided/Wireless Media.

## **UNIT-V: Computer Networks:**

Introduction to Computer Networks, Types of Computer Networks, Network Topologies, OSI Model, TCP/IP Model.

### **Text Book:**

1. Introduction To Information Technology (Second Edition), Pearson, ITI Education Solutions Limited.

2. Introduction of Information Technology, by V. Rajaraman, PHI Learning Private Limited.

## **Reference Book:**

- 1. Fundamentals Of Computers, Balagurusamy, McGraw Hill Education (India) Private Limited.
- 2. Fundamentals Of Computers, Reema Thareja Oxford University

## (With Effect from Academic Year 2020-21)

#### 10H'rs

## 10H'rs

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-'21)

	COMPUTER SCIENCE	CCSC-103C	2020-'21	B.Com(CA)			
SEMESTER – II PAPER – II Max. Marks 70 Pass Marks 28							
Syllabus:INTRODUCTION TO INFORMATION TECHNOLOGY							
NO. 0	f. Hours: 4Credits:3						
Section- A							
Answe	er <u>FOUR</u> Questions. Each Q	uestion carries FO	UR Marks.	4*5=20M			
1.	1. What are the Applications of Computer?						
2.	Explain the types of Program	ming Languages?					
3.	What is Software? Explain Diff	ferent Categories of Se	oftware?				
4.	What is the Role of Information Technology (IT)?						
5.	What are the components of Data Communication?						
6.	. Explain different types of Topologies?						
		Soution	P				

## Answer <u>FIVE</u> the Questions. Each Question carries EIGHT Marks 5\*10=50M

- 7. What is Computer? Explain the classification Computer?
- 8. What is Memory? Explain different types of Memories?
- 9. Explain different types of Input & Output Devices?
- 10. What is an Operating System? Explain different types of Operating System?
- 11. What are the Components of Information Technology (IT)?
- 12. Write a Procedure to create an E-Mail?
- 13. Explain Data Transmission Modes?
- 14. Explain about OSI Model?

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-'21)

	COMPUTER SCIENCE	CCSC-103C	2020-'21	B.Com(CA)	
SEMESTER – I		PAPER – I		Max. Marks 70	

## Guidelines for paper setting <u>IIT</u>

Unit wise weight age of Marks	Section-A (Short answer questions)	Section-B (essay questions)
Unit-I	1	2
Unit-II	2	2
Unit-III	1	2
Unit-IV	1	1
Unit -V	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-'21)

	COMPUTER SCIENCE	CCSC-103C	2020-'21	B.Com. (C.A)
SEM	ESTER – I PAPER –	I Max. Mar	ks 50	Pass Marks 20
<u>Lab I</u>	<u>_ist</u> Introduction to Inform	nation Technology &	Internet N	O Of Hours: 2 Credits: 2
1.	Introduction to Computers	s.		
2.	Block Diagram of a Digita	al Computer		
3.	Memory Devices			
4.	Software & Hardware			
5.	MS-DOS.			
	b) Internal Command	ls		
	c) External Comman	ds		
6.	Windows.			
7.	MS-Word:			
	a) Creating a letter pad.			
	b) Creating a visiting car	d.		
	c) Prepare a time table.			
	a) Header & footers			
	e) Mail Merge.			
8.	MS-Power Point:			
	a) Power point presentat	ion for Fourth National	Games.	
	b) Power point presentat	ion for Indian Education	on System.	
	c) Power point presentat	ion to represent your C	ollege profile.	
	d) Power point presentation	ion using Multimedia.		
	e) Power point presentat	ion to represent your d	epartment	
9.	How to create E-mail, Inform	mation Browsing Service	•	
10	. World Wide Web, Informat	tion Retrieval from the W	orld Wide Web	
11	. Data Transmission Modes			
12	2. Network Topologies			

## A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

## VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

## Accredited by NAAC with "A" Grade

## 2020-2021



## **DEPARTMENT OF COMPUTER SCIENCE**

## **MINUTES OF BOARD OF STUDIES**

## **EVEN SEMESTER**

18-04-2020

Minutes of the meeting of Board of Studies in Computer Science for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10.30 A.M on 18-04-2020 through Online Video Conference Cisco WebEx Meeting

Sri T.Naga PrasadaRao ...... Presiding <u>Members Present:</u>

> hairman Head, Department of Computer Science, (T.NagaPrasadaRao) AG&SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165 21 University Professor, (Dr. R Kiran Kumar) Nominee Dept of Computer Science, Krishna University, Machilipatnam. Academic Head, Department of Computer Science& Engineering, (Dr. Suresh Sundaradasu) Council Dhanekula Institute of Engineering & Technology, Nominee Ganguru, JNTU(K), Vijayawada. 4)..... 54 Academic Professor, Department of Computer Science (Dr. K Bhagvan) Council K.B.N College, Nominee Vijayawada. **C**\_HIndustrial .Net Developer, (R. Sowjanya) Excepert Mavensoft Systems Private limited Madaapur, Hyderabad. .Member Lecturer in Computer Science, AG&SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165. 7)... Lecturer in Computer Science, AG&SG Siddhartha (T.Keerthi Degree College of Arts &Science, Vuyyuru-521165 **Aember** Lecturer in Computer Science, AG&SG Siddhartha (A. Sravani) Degree College of Arts & Science, Vuyyuru-521165 9).... Lecturer in Computer Science, AG&SG Siddhartha Member (S.Prabhavathi Degree College of Arts & Science, Vuyyuru-521165 Lecturer in Computer Science, AG&SG Siddhartha Member Degree College of Arts & Science, Vuyyuru-521165 --- Member Student in M.Sc. Computer Science, AG& SG Siddhartha (A.Preethi) Degree College of Arts & Science, Vuyyuru-521165 MorMember Student in B.Sc. Computer Science, AG&, SG Siddhartha (A GirijaSuma) Degree College of Arts & Science, Vuyyuru-521165

3

- 1. To recommend syllabi for VI Semester of III year Degree B.Sc.(MPCs, MCCs.) & B.Com (C.A). As per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.
- 2. To recommend the Model Question Papers, Lab programs list and Blue print of Semester of III year Degree B.Sc. (MPCs, MCCs.)&B.Com (C.A). As per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.
- 3. To recommend the Guidelines to be followed by the question paper setters in Computer Science for III year Degree B.Sc.(MPCs, MCCs.)&B.Com (C.A). As per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.
- 4. To recommend any changes in the syllabi for II, IV, VI Semesters of I, II, III year Degree B.Sc.(MPCs, MCCs) and B.Com.(C.A.).
- 5. To recommend the teaching and evaluation methods to be followed under Autonomous status.
- 6. To recommend the certificate courses for all Computer Science and Non-Computer Science students any suggestions regarding seminars, workshops, Guest lecturers to be organized.
- 7. To recommend the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG & SG Siddhartha Degree College of Arts & Science College, Vuyyuru.
- 8. Any other matter
  - To be proposed to introduce new course for B.Sc. Program (MSCs) in the Academic year 2021-22.

## **Resolutions**

- Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement syllabi for VI Semester of III year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), Course under Choice Based Credit System with Effect from Academic Year 2020-21.
- 2) Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement Model Question Papers, Lab Programs List and blue print for VI Semester of III year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), Courses under Choice Based Credit System with Effect from Academic Year 2020-21.
- 3) Discussed and recommended the guidelines to be followed by Question Paper Setters in Computer Science for IV Semester of II year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), Courses under Choice Based Credit System With Effect From Academic Year 2020-21.
- 4) Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement syllabi for II Semester of I Year Degree B.Sc. (MPCs, MCCs.), B.Com (C.A.), and Course under Choice Based Credit System with Effect from Academic Year 2020-21.
  - Discussed and recommended the NO changes in the syllabi for IV Semester of II Year B.Sc. (MPCs, MCCs) & B.Com.(CA)., VI Semester of III Year B.Sc. (MPCs, MCCs) & B.Com.(CA).
- 5) Foundation Course for All Degree Courses under Choice Based Credit System with Effect from Academic Year 2020-21.
- ◆ To recommeded the NEW COURCES INTRODUCED in II &IV SEM these are
  - ▶ II sem-B.A,BCOM,BSC- INFORMATION & COMMUNICATION TECHNOLOGY.
  - > IIsem-BCOM(CA)- E-COMMERCE & WEB DESIGNING.
  - IVsem-BCOM(CA)-PROGRAMMING IN C
  - **REMAINING IV AND VI Sem Papers are same as 2019.**

→Discussed and recommended the teaching and evaluation methods for approval of Academic Council. *Teaching methods:* 

Besides the conventional methods of teaching, we use modern technology i.e. Using of LMS and LCD projector to display on power board etc..for better understanding of concepts.

## Evaluation of a student is done by the following procedure:

There are two components in the Valuation and Assessment of a student – Internal Assessment(IA)Semester Examinations (SE). For the Batch of Students Admitted from2018-19.

## Internal Assessment (IA)

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical papers 50 Marks.
- Each IA written examination is of 1 hour 30 minutes duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of

assignments/ quiz/ seminars /PPT/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation.

- For attendance 5 Marks are allotted.
- The semester examination will be of 3 hours with maximum 70 marks.
- There are no passing minimum marks for IA.

## Semester Examinations (SE)

- A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.
- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration & Foundation course 2 hours irrespective of the number of credits allotted to it.
- If a candidate fails to obtain pass marks even after the due to less mark in the IA examination, the marks of the next examination will be converted to be out of 100.
- Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'.
- The maximum marks for each Paper shall be 100.

Question paper guide lines for Practical Examinations at the end of Semesters II, IV & VI Two Practical Programs to be conducted out of 15 programs at the end of Semester II, IV&VI Practical Examination time 3Hrs and Maximum Marks 50 Scheme of valuation Semesters II, IV&VI P Se (MPCs, MCCs) & P Com (C A)

Scheme of valuation Semesters – II, IV&VI B.Sc.(MPCs, MCCs) & B.Com.(C.A).

**Total Marks: 25M** 

## Computer Science Practical's - External (Time: 3 hrs.)

10 mar	·ks,	
5 marks		
10 marks		
25		
		Total Marks: 25M
:	5 marks	
:	10 marks	
:	5 marks	
:	5 marks	
:	25	
	10 mar 5 marks 10 marks 	10 marks,         5 marks         10 marks         25         25         25         10 marks         10 marks

**6.**) Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council. Discussed and recommended to conduct certificate courses for Computer Science and Non-Computer Science students separately like TALLY ACCOUNTING PACKAGE, ADOBE PHOTOSHOP, DESKTOP PUBLISHING, COMPUTER HARDWARE AND NETWORKING, WEB DESIGNING, OPERATING SYSTEMS, ETC...

7) Discussed and empowered the HOD to suggest the panel of the paper setters and examiners to the controller of the examinations.

8). We implemented online certificate courses such as NPTL, APSSDC - PYTHON, R- Programming, Amazon Web services and JAVA -----etc. To fill the curriculum gaps from II year Degree on words
9) Discussed and Recommend to introduce Value Added Course in "BASIC COMPUTER APPLICATIONS & MS OFFICE" with Course Code "BCAM101" for 1<sup>ST</sup> MPC's & MCC's -1<sup>ST</sup>

SEM

10) Discussed and Recommend to introduce Value Added Course in "AWS" with Course Code "VACAWS-01" for II MPC's &MCC's-3<sup>rd</sup> SEM

11) Discussed and Recommend to introduce Value Added Course in "CLOUD COMPUTING" with Course Code "VACCC12" for IIIBCOM(CA)-5<sup>TH</sup> SEM

12). Suggestions

Chairman

7

An Autonomous college within the jurisdiction of Krishna University A.P, India.

		(With I	Effect from Academ	nic Year 2020-	21)
	COMPUTER SCIEN	ICE	CSC-601(GE)	2020-'21	B.Sc.(MPCs., MCCs.)
SEN	IESTER – VI	PAPEI	R – VII Max. Mark	s 70	]
Syllab	us		WEB TECHNOL	OGIES	
NO o	of Hours: 4		No of Credits:	3	Pass Marks 28
Cours	e Objectives:				
1. 2.	To provide knowledge technologies to focus o To provide skills to de	on wel on the d sign int	o architecture, web s levelopment of web- eractive and dynam	services, client based informatic web sites.	side and server side scriptin ation systems and web servic
COUI	RSE OUTCOMES:				
CO1	: Understand the basic	structu	re of a HTML desig	n and develop	a website using different te
Form	natting tags, images, lin	ks, lists	and tables.		
CO2	<b>S</b> : Understand to style a	webpa	ge using CSS and B ge Using Objects in	asic Concepts Iava Script ar	of Java Scripts.
CO4	: Understand the Basic	Conce	pts of XML and De	fining Data for	r Web Applications.
COS	: Understand the Conc	epts of	JS.	-	
Unit - Introdu	I Introduction to XH	ITML:	ocument body text	Hyper links	12 Adding more formatting List
Tables	. Images. Multimedia C	biects.	Frames. Forms and	XHTML.	Adding more formatting List
Unit- 1 Cosco	II: CSS: ding Style Sheets: Intro	duction	n Defining your ow	n styles prop	12 The styles in styles
C <b>asca</b> Forma	tting blocks of informat	tion, La	vers.	n styles, prope	strics and values in styles,
Java S Operat	cript: java Script, the ba	sics, Va	ariables, String Man	ipulations, Ma	athematical functions, Statem
	III oli ( i I C	• • • •			• .
Unit – Obiec	III: Objects in Java S ts in Java Scrint · Data	and ob	<i>z</i> <b>Dynamic HTML</b>	with Java Sci Regular expre	npt 12 ssions Exception Handling
in obje	ects, Events.	und ob	jeeus in java seripu,	regular enpre	solono, Encoption Hundling,
Dynar	nic HTML with Jav	va Scri	ipt: Data validatio	on, Opening	a new window, Messages
Contir pages	mations, The status bar	, writin text-or	ig to a different fram	ne, Rollover t	buttons, Moving images, mu
puges			ny menu system, i k	outing logos.	
Unit –	IV: XML Defining Da	ta for V	Web Applications		12
XML: model	Introduction to XML, presenting XML, Usin	Basic g XML	XML, document ty	pe definition,	XML Schema, Document of
UNIT	-V:				12
JSP: J	SP Lifecycle, Basic Syn	tax, EL	(Expression Langu	age), EL Synta	ax, Using EL Variables
Presci	ribed Books:				
-	<ol> <li>Chris Bates, Web Pr (2007)</li> </ol>	ogramr	ning Building Interr	net Application	n, Second Edition, Wiley

- 2. Head First Servlets and JSP 2<sup>nd</sup> Edition, Bryan Basham, Kathy Sierra
- 3. Uttam Kumar Roy, Web Technologies from Oxford University Press

## **Student Activities:**

1. Prepare a web site for your college

#### 8

AG & SG SIDDHART An Autonomous colle (W	HA COLLEGE OF ARTS ege within the jurisdiction /ith Effect from Academic	S AND SCI of Krishna Year 2020	ENCES - VUYYURU. 1 University A.P, India. -'21)		
COMPUTER SCIENCE     CSC-601(GE)     2020-'21     B.Sc.(MPCs. , MCC					
SEMESTER – VI PA	SEMESTER – VI PAPER – VII Max. Marks 70				
Model Paper No Of Hours: 4	WEB TECHNOLOGIES <u>No of Credits: 3</u>		Pass Marks 28		

### Section -A

Answer FOUR Questions. Each Question carries FIVE Marks.4X 5=20M

- 1. Write about structure of HTML Document with an example?
- 2. Explain about lists in HTML?
- 3. Write about properties used in Style Sheet?
- 4. Write about Rollover buttons?
- 5. Describe XML Elements?
- 6. Write the syntax of EL and EL variables?

### Section-B

Answer **<u>FIVE</u>**Questions. Each Question carries **TEN** Marks **5 X 10=50M** 

- 7. Explain about hyper links? Write about how to link another pages?
- 8. What is Form? Explain about forms with examples?
- 9. What is CSS? How to design Cascading style sheet?
- 10. Explain about Mathematical Functions?
- 11. Explain about Regular Expressions?
- 12. Write about Data validations in DHTML?
- 13. Explain about Document Object Model?
- 14. Explain about JSP Lifecycle with neat diagram?

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-'21)

	COMPUTER SCI	ENCE	CSC-601(	GE)	2020-'21	B.Sc.(MPCs., MCCs.)
SEM	ESTER – VI	PAPE	R – VII	Max	x. Marks 70	Pass Marks 28

## Guidelines for paper setting '<u>WEB TECHNOLOGIES'</u>

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

## An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

	COMPUTER SCIENC	CE CSC-601(GI	E) 2020-'21	B.S	c.(MPCs. , MCCs.)
-	SEMESTER – VI	P	APER – VI		Max. Marks 50
Lab Lis	st	WEB TECHNO	LOGIES		Pass Marks: 20
No. of H	Hours per week: 2	External: 25	Internal:	25	Credits: 2

- 1. Write an HTML program to demonstrate text formatting, working with images and hyper links
- 2. Write an HTML program to create Student Marks sheet preparation.
- 3. Write an HTML program to explain String manipulation-using functions.
- 4. Write an HTML program to explain <form> events
- 5. Write an HTML program to perform all arithmetic operations using java script.
- 6. Develop a HTML Form, which accepts any Mathematical expression. Write JavaScript code to Evaluates the expression and Displays the result.
- 7. Create a form for Student information. Write JavaScript code to find Total, Average, Result and Grade.
- 8. Create a form for Employee information. Write JavaScript code to find DA, HRA, PF, TAX, Gross pay, Deduction and Net pay.
- 9. Create a form consists of a Multiple choice questions that validates the answer dynamically and displaying result using java script.
- 10. Write a java script to work with following
- a. Date display b. Calendar c. Copy Selected Text
- b. IP Address

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-21)					
	COMPUTER SCIENCE	CSC-602CE	2020-'21	B.Sc.(MPCs. , MCCs.)	
SEME	STER – VI	PAPER – VIII	Ma	ax. Marks: 70	
Syllabus PHP, MySQL & Word Press					
NO Of Hours:4 Credits: 3			Pass Marks	28	

**Course Objective:** To introduce the concept of PHP and to give basic Knowledge of PHP. Learn about PHP Syntax., Arrays, PHP Loops, PHP and MySQL connectivity, PHP form validation, PHP form handling. Overview of MySQL and PHPMyAdmin, Understand basic concepts of how a database stores information via tables, Understanding of SQL syntax used with MySQL, Learn how to retrieve and manipulate data from one or more tables, Know how to filter data based upon multiple conditions, Updating and inserting data into existing tables, Learning how the relationships between tables will affect the SQL, The advantages of store procedures with storing data using variables and functions, How SQL can be used with programming languages like PHP to create dynamic websites for visitors, Review of some sample PHP projects interacting with MySQL.

## **COURSE OUTCOMES:**

CO1: Understand the concepts Of PHP and MY SQL Installations.

CO2: Able to know the basic concepts Function and Working with Functions.

CO3: Understand the concepts of FORMS and working with FORMS.

CO4: understand the concepts of MY SQL and MY SQL Components.

**CO5:** Able to know the concepts of WORD PRESS.

## UNIT-1: Installing and Configuring MySQL:

Current and Future Versions of MySQL, How to Get MySQL, Installing MySQL on Windows, Trouble Shooting your Installation, Basic Security Guidelines, Introducing MySQL Privilege System, Working with User Privileges. Installing and Configuring Apache: Current and future versions of Apache, Choosing the Appropriate Installation Method, Installing Apache on Windows, Apache Configuration File Structure, Apache Log Files, Apache Related Commands, Trouble Shooting. Installing and Configuring PHP: Building PHP with Apache on Windows, php.ini. Basics, The Basics of PHP scripts. The Building blocks of PHP: Variables, Data Types, Operators and Expressions, Constants. Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output.

## **Unit – II: Working with Functions**:

What is function?, Calling functions, Defining Functions, Returning the values from User-Defined Functions, Variable Scope, Saving state between Function calls with the static statement, more about arguments. Working with Arrays: What are Arrays? Creating Arrays, Some Array-Related Functions. Working with Objects: Creating Objects, Object Instance Working with Strings, Dates and Time: Formatting strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.

## 10 Hrs

## 15 Hrs

## 10 Hrs

12

Creating Forms, Accessing Form Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads. Working with Cookies and User Sessions: Introducing Cookies, Setting a Cookie with PHP, Session Function Overview, Starting a Session, Working with session variables, passing session IDs in the Query String, Destroying Sessions and Unsetting Variables, Using Sessions in an Environment with Registered Users. Working with Files and Directories: Including Files with inclue(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files, Writing or Appending to a File, Working with Directories.

### **Unit – IV: Introduction to MySQL**

Introduction to My SQLand Interfacing with Databases through PHP Understanding the database design process: The Importance of Good Database Design, Types of Table Relationships, Understanding Normalization. Learning basic SQL Commands: Learning the MySQL Data types, Learning the Table Creation Syntax, Using Insert Command, Using SELECT Command, Using WHERE in your Queries, Selecting from Multiple Tables, Using the UPDATE command to modify records, Using RELACE Command, Using the DELETE Command, Frequently used string functions in MySQL, Using Date and Time Functions in MySQL. Interacting with MySQL using PHP: MySQL Versus MySQLi Functions, Connecting to MySQL with PHP, Working with My SQL Data.

### Unit – V:Word press

Word press: Introduction to word press, servers like wamp, bitnami e.tc, installing and configuring word press, understanding admin panel, working with posts and pages, using editor, text formatting with shortcuts, working with media-Adding, editing, deleting media elements, working with widgets, menus. Working with themes-parent and child themes, using featured images, configuring settings.

### **References:**

1. Julie C. Meloni, PHP MySQL and Apache, SAMS Teach yourself, Pearson Education (2007).

2. Xue Bai Michael Ekedahl, The web warrior guide to Web Programming, Thomson (2006).

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-'21)

#### 15Hrs

## 10Hrs

COMPUTER SCIENCE	CSC-602CE	2020-'21	B.Sc.(MPCs., MCCs.)
MESTER – VI	PAPER – VIII	I	Max. Marks 70
<u>el Paper</u> PHP, MySQL & Wo	ord Press		
Of Hours:3	No Of Credits: 3		Pass Marks 28
	Section- A		
Answer <b>Four</b> Questions. Ea	ch Question carries <b>FIV</b>	E Marks.	4*5=20M
1. Define variable and list the	ne standard data types in	PHP?	
2. What is Break and Contin	nue statements in PHP?		
3. Explain how to create a s	imple form in PHP?		
4. What is Cookie and expla	in how to accessing coo	kie in PHP	?
5. Describe Update Comma	nd in MySQL with Exan	nple?	
6. Write short notes on Wor	d Press.?		
	<u>Section- B</u>		
Answer <b><u>FIVE</u></b> Questions. Ea	ch Question carries TEN	N Marks	5*10=50N
7. Explain about Operators	and Expressions availabl	e in PHP w	ith examples?
8. Explain about Loops and	switching statements in	PHP with e	xamples?
9. Explain about Arrays and	related functions to arra	ys in PHP v	with examples?
10. Explain the following Str	ings functions with exan	nple?	
a. a. strlen() b. strstr	() c. strpos() d. substr	r() e. strto	k()
11. Explain how to send Mai	l on form submission in I	PHP?	
12. Explain how to work with	n Sessions in PHP?		
13. Explain how to insert & r	etrieve data with MySql	in PHP?	
14. Explain how to work with	n Themes and also featur	ed images i	n Word Press?

(With Effect from Academic Year 2020-'21)

	COMPUTER SC	CIENCE	CSC-602CE	2020-'21	B.Sc.(MPCs. , MCCs.)
SEMI	ESTER – VI	PAPE	R – VIII	Max. Marks	5 70 Pass Marks 28

**Guidelines for paper setting** 

'PHP, MySQL & Word Press '

Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(Essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

Each Short answer question carries 5 marks in Section -A •

Each Essay question carries 10 marks in Section -B

The Question papers setters are requested to cover all the topics in the syllabus stipulated as per • the weight age given by us.

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

15

	COMPUTER SCIENCE	CSC-602CE	2020-*21	B.Sc.(MPCs., MCCs.)
SE	CMESTER – VI	PAPER – V	<b>III</b>	Max. Marks 50
La No	b List PHP, MySQL & Word b. of Hours per week: 3	l Press LabPass Ma External: 25	rks 20 Internal:	25 Credits: 2
MySQ	L Lab Cycle			
Cycle	-1			
An Ei For tha Suppli Parts ( Catalo	nterprise wishes to maintain at he uses the following details ers (sid: Integer, sname: string pid: Integer, pname: string, col og (sid: integer, pid: integer, col	the details about i , address: string) lor: string) st: real)	his suppliers	and other corresponding deta
The ca	talog relation lists the prices cl	harged for parts by	suppliers.	
Write	the following queries in SQL:			
<ol> <li>Fin</li> <li>Fin</li> <li>Fin</li> <li>Fin</li> <li>Fin</li> <li>Fon</li> <li>Fon</li> <li>Fin</li> <li>Fin</li> <li>Fin</li> <li>Fin</li> <li>Fin</li> <li>Fin</li> </ol>	d the pnames of parts for which d the snames of suppliers who d the snames of supplier who so d the pnames of parts supplied d the sid's of suppliers who ch each part, find the sname of th d the sid's of suppliers who su d the sid's of suppliers who su	h there is some sup supply every part. supply every red par by London Supplie arge more for some ne supplier who cha pply only red parts. pply a red and a gre pply a red or green for that suppler by p	plier. er abd by no or part than the rges the most een part. part. part located fro	ne else. average cost of that part. for that part. om London.
Cycle An or emplo	<ul> <li>2</li> <li>ganisation wishes to maintain yees. For that he uses the follow</li> </ul>	n the status about wing tables.	the working	hours made by his

16

Emp (eid: integer, ename: string, age: integer, salary: real)

Works (eid: integer, did: integer, pct\_time: integer)

Dept (did: integer, budget: real, managerid: integer)

An employee can work in more than one department; the pct\_time field of the works relation shows the percentage of time that a given employee works in a given department.

Resolve the following queries.

1. Print the names and ages of each employee who works in both Hardware and Software departments.

2. For each department with more than 20 full time equivalent employees (i.e., where the parttime and full-time employees add up to at least that many full-time employees), print the did's together with the number of employees that work in that department. 3. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she work in.

4. Find the managerid's of managers who manage only departments with budgets greater than 1,000,000.

5. Find the enames of managers who manage the departments with largest budget.

6. If a manager manages more than one department, he or she controls the sum of all the budgets for those departments. Find the menagerie's of managers who Control more than 5,000,000.

7. Find the menagerie's of managers who control the highest amount.

8. Find the average manager salary.

## PHP Lab Cycle

- 1. Write a PHP program to Display "Hello"
- 2. Write a PHP Program to display the today's date.
- 3. Write a PHP Program to read the employee details.
- 4. Write a PHP Program to display the
- 5. Write a PHP program to prepare the student marks list.
- 6. Write a PHP program to generate the multiplication of two matrices.
- 7. Write a PHP Application to perform demonstrates the college website.
- 8. Write a PHP application to add new Rows in a Table.
- 9. Write a PHP application to modify the Rows in a Table.
- 10. Write a PHP application to delete the Rows from a Table.
- 11. Write a PHP application to fetch the Rows in a Table.
- 12. Develop an PHP application to make following Operations
  - i. Registration of Users.
  - ii. Insert the details of the Users.
  - iii. Modify the Details.
  - iv. Transaction Maintenance.
    - a) No of times Logged in
    - b) Time Spent on each login.
    - c) Restrict the user for three trials only.
    - d) Delete the user if he spent more than 100 Hrs of transaction.

## Wordpress Lab

- 1. Installation and configuration of word press.
- 2. Create a site and add a theme to it.

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

		(With E	ffect from Academ	ic Year 2020	-21)
	COMPUTER SCI	ENCE	CSC-603CE	2020-'21	B.Sc.(MPCs., MCCs.)
SEME	STER – VI PAP	ER – IX	Max. Marks 70	Credits: 3	Pass Marks 28

## Syllabus Advanced java Script: JQUERY/AJAX/JSON/ANGULAR JS NO Of Hours:4

**Course Objective:** To impart knowledge in designing a webpage in a structured way by using advanced java script i.e., using different scripting languages.

## **COURSE OUTCOMES:**

CO1: Understand the concepts Of HTML and JQUERY

CO2: Write program for JOUERY and CSS Methods using DOM Attributes

CO3: Understand the concepts of JQUERY USER INTERFACE Programs

CO4: Understand the concepts of AJAX and JSON Objects

**CO5**: Basic concepts of ANGULAR JS and ANIMATIONS

## **UNIT-1:JQuery – Basics:**

String, Numbers, Boolean, Objects, Arrays, Functions, Arguments, Scope, Built-in Functions. jQuerySelectors: CSS Element Selector, CSS Element ID Selector, CSS Element Class Selector, CSS Universal Selector, Multiple Elements E, F, G Selector, Callback Functions. JQuery – DOM Attributes: Get Attribute Value, Set Attribute Value. JQuery – DOM Traversing: Find Elements by index, filtering out Elements, Locating Descendent Elements, and JQuery DOM Traversing Methods.

## Unit – II: jQuery – CSS Methods:

Apply CSS Properties; Apply Multiple CSS Properties, Setting Element Width & Height, and JQuery CSS Methods. JQuery - DOM Manipulation Methods: Content Manipulation, DOM Element Replacement, Removing DOM Elements, Inserting DOM elements, DOM Manipulation Methods. jQuery - Events Handling: Binding event handlers, Removing event handlers, Event Types, The Event Object, The Event Attributes. JQuery – Effects: JQuery Effect Methods, jQuery Hide and Show, jQuery Toggle, jQuery Slide – slideDown, slideUp, slide Toggle, jQuery Fade – fadeIn, fadeOut, fadeTo, jQuery Custom Animations

## Unit – III: Intro to jQuery UI

, Need of jQuery UI in real web sites, Downloading jQuery UI, Importing jQuery UI, Draggable, Droppable, Resizable, Selectable, Sortable, Accordion, Auto Complete, Button Set, Date Picker, Dialog, Menu, Progress Bar, Slider, Spinner, Tabs, Tooltip, Color Animation, Easing Effects, add Class, remove Class, Effects, jQuery UI themes, Customizing jQuery UI widgets / plug-ins, jQuery UI with CDN, Consuming jQuery Plug-ins from 3rd party web sites jQuery Validations, Intro to jQuery validation plugin, Using jQuery validation plug-in, Regular expressions.

## **Unit – IV: Intro to AJAX**

Need of AJAX in real web sites, Getting database data using jQueryAJAX, Inserting, Updating, Deleting database data using jQuery-AJAX Grid Development using jQuery-AJAX Intro to JSON JSON syntax, Need of JSON in real web sites, JSON object, JSON array, Complex JSON objects, Reading JSON objects using jQuery.

## Unit – V: Intro to AngularJS

Need of AngularJS in real web sites, Downloading AngularJS, AngularJS first example, AngularJS builtin directives, AngularJS expressions, AngularJS modules, AngularJS controllers, AngularJS scope AngularJS dependency injection AngularJS, bootstrapping AngularJS data bindings, AngularJS \$watch, AngularJS filters, AngularJS events, AngularJS AJAX, Ng-repeat, AngularJS with json arrays, AngularJS registration form and login form, AngularJS CRUD operations, AngularJS Animations, AngularJS validations AngularJS \$q, AngularJS custom values, AngularJS custom services, AngularJS custom directives, AngularJS custom providers, AngularJS Routing, AngularUI Routing.

## **References:**

1. jQuery UI 1.8: The User Interface Library for jQuery by Dan Wellman

2. jQuery Fundamentals by Rebecca Murphey 3. Ajax: The Complete Reference by Thomas A. Powell

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-'21)

## **10 Hrs**

# 15 Hrs

15 Hrs

### 15 Hrs

#### 18

## **10 Hrs**

	MPUTER SCIENCE	<b>CSC-603CE</b>	2020-'21	B.Sc.(MPCs., MCCs.)
SEMEST	ΓER – VI	PAPER – IX	1	Max. Marks 70
odel Pap O Of H	<u>)er</u> Advanced java Scrip ours:3	t: JQUERY/AJAX/JS <u>No Of Credits</u> : 3	ON/ANGUI	LAR JS Pass Marks 28
		<u>Section- A</u>		
Ans	swer <u>Four</u> Questions. Ea	ch Question carries FIV	<b>E</b> Marks.	4*5=20N
1. V	What is jquery? Write a s	imple program to displa	y welcome i	nessage?
2. V	Write a jquery-dom attrib	outes?		
3. V	Write a program for jque	ry fade in, fade out?		
4. I	Discuss in detail about jq	uery UI categorization?		
5. V	Write a need of AJAX in	real websites?		
6. V	Write a short notes angul	arJS built-in directives?		
		Section- B		
Ansv	ver <b><u>FIVE</u></b> Questions. Eac	ch Question carries <b>TEN</b>	Marks	5*10=50M
7. E	Explain in detail about D	OM traversing methods	?	
8. V	Write about CSS Selector	rs with examples progra	ms?	
9. V	Write about JQUERY Ef	fects methods with exan	nples progra	ms?
	Explain detail about ique	erv-dom manipulation m	ethods?	
10.		J		
10. 1 11. V	Write a program for drop	pable, resizable, Dragga	ble using jqu	iery UI?
10. 1 11. V 12. V	Write a program for drop Write about JQUERY Va	pable, resizable, Dragga lidation Plug-In method	ble using jqu ls with exam	ery UI? ple programs?
10. 1 11. V 12. V 13. H	Write a program for drop Write about JQUERY Va How can we manipulate t	pable, resizable, Dragga ilidation Plug-In method the data in a database us	ble using jqu ls with exam ing jquery-A	iery UI? ple programs? JAX?

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-'21)

COMPUTER SCIENCE	CSC-603CE	2020-'21	B.Sc.(MPCs., MCCs.)
------------------	-----------	----------	---------------------

SEMESTER – VI

PAPER – IX Max. Marks 70

Pass Marks 28

Guidelines for paper setting'Advanced java Script: JQUERY/AJAX/JSON/ANGULAR JS'

## Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us.

Lab ListAdvanced java Script: JQUERY/AJAX/JSON/ANGULAR JSPass Marks 20No. of Hours per week: 3External: 25Internal: 25

## Credits: 2

1. Using jQuery find all text areas, and makes a border. Then adds all paragraphs to the jQuery object to set their borders red.

2. Using jQuery add the class "w3r\_font\_color" and w3r\_background to the last paragraph element.

3. Using jQuery add a new class to an element that already has a class.

4. Using jQuery insert some HTML after all paragraphs.

5. Using jQuery insert a DOM element after all paragraphs.

6. Convert three headers and content panels into an accordion. Initialize the accordion And specify the animate option

7. Convert three headers and content panels into an accordion. Initialize the accordion and specify the height.

8. Create a pre-populated list of values and delay in milliseconds between a keystroke occurs and a search is performed.

9. Initialize the button and specify the disable option.

10. Initialize the button and specify an icon on the button.

11. Initialize the button and do not show the label.

12. Create a simple jQuery UI Datepicker. Now pick a date and store it in a textbox.

13. Initialize the date picker and specify a text to display for the week of the year column heading.

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-'21)

COMPUTER SCIENCE	CSC PROJ-602 P	2020-'21	B.Sc.(MPCs., MCCs.)
------------------	----------------	----------	---------------------

## SEMESTER - VIPROJECT (Java, PHP & MYSQL)Max. Marks 100

## **OBJECTIVE**

The objective of the Project Course is to help the students to study, analyze and design software or utility for different problems or applications. This will improve the skills of software development of the students.

## **COURSE OUTCOMES:**

CO1: Students will get fundamental knowledge to work in emerging/latest technologies.

**CO2**: They will also learn about theoretical and practical tools/techniques to solve real life problems related to industry, academic institutions and research laboratories.

**CO3**: Able to know the details of modules and process logic.

**CO4**: Able to know the details of Testing and Implementation.

**CO5**: Able to use no. of tools/platforms, Languages.

## MARKS FOR PROJECT EVALUATION

The project course will be evaluated for **100** Marks, of which **75** marks are meant for the practical evaluation of a project and **25** marks are allotted for attending viva-voce examination. The passing minimum in the project work will be 50% of the total mark. i.e. the student should get minimum 50% marks in the project evaluation and the viva-voce examination. Thus, the minimum mark the student is required to obtain is 50 out of 100 marks.

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

COMPUTER SCIENCE	CCSC-605CE	2020-21	B.Com (C.A)
SEMESTER –VI	PAPER – I	X	Total: 60 Hrs
Syllabus	TALLY		Max.Marks:70
Credits 3	NO Of Hours 5		Pass Marks 28
COURSE OUTCOMES: CO1: Able to understand the b CO2: Able to understand the in CO3: Able to implement the co CO4: Able to implement the co CO5:Able to implement the ba Unit-I: Introduction to Tally:	basic concepts of TA nstallation of TALI oncepts of ledgers oncepts of vouchers asic concepts of fina	ALLY LY Software.	12Hrs
Introduction, Software versions	of Tally, Terminolo	gy related to A	ccounts credit & Debit, Journal,
Ledger, Voucher, Group etc. Dif	fference between M	anual Account	ing and Accounting Packages.
Features and advantages of Tally	у.		
Unit-II: Introduction of Tally	Software		12Hrs
Introduction of Tally Software C	Creation of a compa	ny, Gateway of	Tally, Accounts Information,
Groups, pre defined Groups, Cre	eation of New Grou	ps, and Creatio	n of sub Group.
Unit-III: Ledgers			12Hrs
Ledger Creation Single and mult	tiple Ledgers, Displ	aying & alterin	g Ledgers, configure Ledger, Stocl
Ledger, Ledgers and their Group	Allocation.		
<b>Unit-IV: Vouchers</b>			12Hrs
Types of vouchers – recording o	f vouchers – entry	of payment vou	cher, Receipt voucher, sales vouch
purchase voucher, Journal Vouch	her, Contra Vouche	r, Debit & Cre	dit Note. Creating New Voucher
types, customizing the Existing	voucher types, Alte	rnation of Vou	cher, Deletion of Voucher.
<b>Unit-V: Final Accounts</b>			12Hrs
Customizing the final accounts -	- Profit and Loss A	ccount, Balance	e Sheet. Key board shortcuts in Tall
Generating the Reports from Tal	lly, Trial Balance, A	Account Books,	Sales, Purchase, Journal Registers
Statement of Accounts, Day Boo	ok, List of Accounts	5.	
<b>Reference Books:</b>			
1. K. Kiran Kumar, Tally ERP9.			
2. Tally 9 In Simple Steps, Koge	ent solutions Inc., Jo	ohn Wiley & So	ons, 2008.
3. Narmata Agarwal, Financial A	Accounting on Com	puters Using T	ally, Dramatic Press, 2000.
4. Tally 9.0, Google eBook, Con	mputer World.		
5. Vikas Gupta, Comdex Compu	iter and Financial A	ccounting with	Tally 9.0, 2007.
AG & SG SIDDHART	THA COLLEGE (	)F ARTS ANI	) SCIENCES - VUYYURU.
An Autonomous colle	ge within the juris With Effect from A	diction of Kris Academic Year	shna University A.P, India. : 2020-2021)

SEMES Model I Credits Answer 1. Diff 2. Wha 3. How 4. Exp 5. Exp 6. Wri Answer 7. Exp 8. Exp 9. Exp 10. Exp	ESTER –VI I Paper TALLY ts 3 er Four Questions. Eac ifferentiate between Ma /hat are the features of / ow to create a new grou xplain how to create a s xplain contra Voucher /rite a short note on Day er FIVEQuestions. Eac xplain evolution of Tally xplain versions of Tally xplain about Gateway of	PAPER – Max.] <u>NO Of Hours 5</u> The Question carries FT anual Accounting and Tally? up in Tally stock ledger? y Book <u>Section- B</u> ch Question carries The ly and what are the fer	IX Marks:70 VE Marks. Accounting Pa	Total: 60 Hrs Pass Marks 28 4x5=20M ackages?
Model F Credits Answer 1. Diff 2. Wha 3. How 4. Exp 5. Exp 6. Wri Answer 7. Exp 8. Exp 9. Exp 10. Exp	<b>I Paper TALLY</b> <b>ts 3</b> er <b>Four</b> Questions. Eac ifferentiate between Ma /hat are the features of / ow to create a new grou xplain how to create a s xplain contra Voucher /rite a short note on Day er <b><u>FIVE</u>Questions. Eac</b> xplain evolution of Tally xplain versions of Tally xplain about Gateway of	Max.] <u>NO Of Hours 5</u> th Question carries FT anual Accounting and Tally? up in Tally stock ledger? y Book <u>Section- B</u> ch Question carries TT ly and what are the fer	Marks:70 VE Marks. Accounting Pa	Pass Marks 28 4x5=20M ackages?
Credits Answer 1. Diff 2. Wha 3. How 4. Exp 5. Exp 6. Wri Answer 7. Exp 8. Exp 9. Exp 10. Exp	ts 3 er Four Questions. Eac ifferentiate between Ma /hat are the features of 7 ow to create a new grou xplain how to create a s xplain contra Voucher /rite a short note on Day er FIVEQuestions. Eac xplain evolution of Tally xplain versions of Tally xplain about Gateway of	NO Of Hours 5 The Question carries FT anual Accounting and Tally? up in Tally stock ledger? y Book <u>Section- B</u> ch Question carries TH ly and what are the fer	VE Marks. Accounting Pa	Pass Marks 28 4x5=20M ackages?
Answer <ol> <li>Diff</li> <li>What</li> <li>What</li> <li>How</li> <li>Exp</li> <li>Exp</li> <li>Writh</li> </ol> Answer <ol> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> </ol>	er <b>Four</b> Questions. Eac ifferentiate between Ma /hat are the features of / ow to create a new grou xplain how to create a s xplain contra Voucher /rite a short note on Day er <b>FIVE</b> Questions. Eac xplain evolution of Tally xplain versions of Tally xplain about Gateway of	ch Question carries <b>FT</b> anual Accounting and Tally? up in Tally stock ledger? y Book <u>Section- B</u> ch Question carries <b>T</b> I	VE Marks. Accounting Pa	4x5=20M
<ol> <li>Diff</li> <li>What</li> <li>How</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Writh</li> </ol> Answer <ol> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> </ol>	ifferentiate between Ma /hat are the features of / ow to create a new grou xplain how to create a s xplain contra Voucher /rite a short note on Day er <b><u>FIVE</u>Questions. Eac</b> xplain evolution of Tally xplain versions of Tally xplain about Gateway of	anual Accounting and Tally? up in Tally stock ledger? y Book <u>Section- B</u> ch Question carries <b>T</b> I	Accounting Pa	ackages?
<ol> <li>What</li> <li>How</li> <li>Exp</li> <li>Exp</li> <li>Writh</li> </ol> Answer <ol> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> </ol>	Vhat are the features of V ow to create a new grou xplain how to create a s xplain contra Voucher Vrite a short note on Day er <b><u>FIVE</u></b> Questions. Eac xplain evolution of Tally xplain versions of Tally	Tally? up in Tally stock ledger? y Book <u>Section- B</u> ch Question carries <b>T</b> I		
<ol> <li>How</li> <li>Exp</li> <li>Exp</li> <li>Wri</li> </ol> Answer <ol> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> </ol>	ow to create a new grou xplain how to create a s xplain contra Voucher Vrite a short note on Day er <b>FIVE</b> Questions. Eac xplain evolution of Tall xplain versions of Tally xplain about Gateway of	up in Tally stock ledger? y Book <u>Section- B</u> ch Question carries <b>T</b> I		
<ol> <li>Exp</li> <li>Exp</li> <li>Wri</li> <li>Answer</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> </ol>	xplain how to create a s xplain contra Voucher Vrite a short note on Day er <b>FIVE</b> Questions. Eac xplain evolution of Tall xplain versions of Tally xplain about Gateway of	stock ledger? y Book <u>Section- B</u> ch Question carries <b>T</b> I		
<ol> <li>5. Exp</li> <li>6. Wri</li> <li>Answer</li> <li>7. Exp</li> <li>8. Exp</li> <li>9. Exp</li> <li>10. Exp</li> </ol>	xplain contra Voucher Vrite a short note on Day Per <b>FIVE</b> Questions. Eac xplain evolution of Tall xplain versions of Tally xplain about Gateway of	y Book <u>Section- B</u> ch Question carries <b>T</b> ly and what are the fea		
<ol> <li>6. Wri</li> <li>Answer</li> <li>7. Exp</li> <li>8. Exp</li> <li>9. Exp</li> <li>10. Exp</li> </ol>	Vrite a short note on Day er <u>FIVE</u> Questions. Eac xplain evolution of Tall xplain versions of Tally xplain about Gateway o	y Book <u>Section- B</u> ch Question carries <b>T</b> ly and what are the fea		
Answer 7. Exp 8. Exp 9. Exp 10. Exp	er <u>FIVE</u> Questions. Eac xplain evolution of Tall xplain versions of Tally xplain about Gateway o	<u>Section- B</u> ch Question carries TI		
Answer 7. Exp 8. Exp 9. Exp 10. Exp	er <u>FIVE</u> Questions. Eac xplain evolution of Tall xplain versions of Tally xplain about Gateway o	ch Question carries T		
<ol> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> <li>Exp</li> </ol>	xplain evolution of Tall xplain versions of Tally xplain about Gateway o	ly and what are the fe	EIN Marks	5 X 10=50M
<ol> <li>8. Exp</li> <li>9. Exp</li> <li>10. Exp</li> </ol>	xplain versions of Tally xplain about Gateway o	iy and what are the lea	atures and adva	ntages of Tally
9. Exp 10. Exp	xplain about Gateway o	y software		
10. Exp		of Tally		
-	xplain about Group and	l predefined Groups		
11. Exp	xplain ledger creation			
12. Hov	ow to create a single an	nd multiple ledgers		
13. Exp	xplain different types o	f vouchers?		
14. Exp	xplain how to generate	the reports from Tally	/?	

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.
(With Effect From Academic Year 2020-'21)					
	COMPUTER SCIENCE	CCSC-605CE	2020-21	B.Com (C	C.A)
<u>SEMESTER –VI</u> I		PAPER – IX	Max.	Marks 70	Pass Marks 28
Guidelines for paper setting <u>'TALLY'</u>					

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

25

COMPUTER SCIENCE	CCSC-605P		2020-21	B.Com.(C.A.)
<u>SEMESTER – VI</u>	PAPER – V	I		Max. Marks: 50 Pass Mark: 20
	TALLY			
No. Of Hours per week: 3 Lab list	External: 25	Internal	: 25	Credits: 2
1. Architecture and customization of	Tally			
2. Configuration of Tally				
3. Tally Screens and Menus				
4. Creation of new company and grou	ups.			
5. Preparation of voucher entries.				
a. Payment voucher creation				
b. Receipt voucher creation				
c. Sales voucher creation				
d. Purchase voucher creation				
e. Contra voucher creation				
f. Journal voucher creation				
6. Ledger Creation.				
7. Preparation of VAT				
8. Preparation of TDS				
7. Preparation of Trail balance				
8. Preparation of Profit and loss state	ment.			
9. Preparation of Balance Sheet				
10. Preparation of Bank Reconciliation	on Statement.			
11. Example Exercise				

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect From Academic Year 2020-21)

COMPUTER SCIENCE	CCSC-606CE	2020-21	B.Com (C.A)

26

#### **SEMESTER -VI**

# PAPER – X

Total: 60 Hrs

Max.Marks:70

Pass Marks 28

**Syllabus Credits 3** 

## **E-COMMERCE**

#### **NO Of Hours 5**

#### **COURSE OUTCOMES:**

**CO1:** Students would be able to analyse the concept of business models and standards.

**CO2:** Students would be able to understand the electronic market and market place.

**CO3:** Students would be able to understand the Hardware and Software of Server.

**CO4:** Students would be able to understand the legal and security issues.

**CO5:** Able to differentiate different online payment methodologies.

#### **Unit-I: Introduction to E-Commerce**

Scope, Definition, e-Commerce and the Trade Cycle, Electronic Markets, Electronic Data Interchange, Internet Commerce. Business Strategy in an Electronic Age: Supply Chains, Porter's Value Chain Model, Inter Organizational Value Chains, Competitive Strategy, First Mover Advantage - Sustainable Competitive Advantage, Competitive Advantage using E-Commerce – Business Strategy.

#### Unit-II:Business-to-Business Electronic Commerce12Hrs

Characteristics of B2B EC, Models of B2B EC, Procurement Management by using the Buyer's Internal Market place, Just in Time Delivery, Other B2B Models, Auctions and Services from traditional to Internet Based EDI, Integration with Back-end Information System, Role of Software Agents for B2B EC, Electronic marketing in B2B, Solutions of B2B EC, Managerial Issues, Electronic Data Interchange (EDI), EDI: Nuts and Bolts EDI and Business.

#### **Unit-III: Internet and Extranet**

Automotive Network Exchange, Largest Extranet, Architecture of the Internet, Intranet and Extranet, Intranet software, Applications of Intranets, intranet Application Case Studies, Considerations in Intranet Deployment, Extranets, Structures of Extranets, Extranet products and services, Applications of Extranets, Business Models of Extranet Applications, Managerial Issues. Electronic Payment Systems: Issues and Challenges.

#### **Unit-IV:Public Policy**:

From Legal Issues to Privacy : Legal Incidents, Ethical and Other public Policy Issues, Protecting Privacy, Protecting Intellectual Property, Free speech, Internet Indecency and Censorship, Taxation and Encryption Policies, Other Legal Issues: Contracts, Gambling and More, Consumer and Seller Protection in EC.

#### **Unit-V:Infrastructure For EC**

Network of Networks, Internet Protocols, Web- Based client/Server, Internet Security, Selling on the Web, Chatting on the Web, Multimedia delivery, Analyzing Web Visits, Managerial Issues, Equipment required for establishing EC Sites - problems in Operation - Future of EC.

#### **Reference Books**

- 1. David Whiteley, "E-Commerce", Tata McGraw Hill, 2000.
- 2. E Business by Parag Kulakarni and Sunitha Jahirabadkar from Oxford University Press.
- 3. E Business by Jonathan Reynolds from Oxford University Press.
- 4. Eframi Turban, Jae Lee, David King, K. Michael Chung, "Electronic Commerce",
- 5. Pearson Education, 2000.

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect From Academic Year 2020-2021)

COMPUTER SCIENCE	CCSC-606CE	2020-21	B.Com (C.A)
------------------	------------	---------	-------------

## 12Hrs

12Hrs

## 12Hrs

27

12Hrs

#### <u>SEMESTER –VI</u> <u>Syllabus</u>

**Credits 3** 

## PAPER – X E-COMMERCE NO Of Hours5

Total: 60 Hrs Max.Marks:70 Pass Marks 30

#### Section-A

Answer **Four** Questions. Each Question carries **FIVE** Marks.

4\*5=20M

- 1. Explain Electronic data interchange?
- 2. Write about Value Chain Model
- 3. What are the characteristics of B2B Electronic Commerce
- 4. Write about applications of Intranet?
- 5. Explain encryption policies?
- 6. Write about Internet protocols?

#### Section-B

Answer **<u>FIVE</u>** Questions. Each Question carries **TEN** Marks. **5\*10=50M** 

- 7. What are the advantages and limitations of E-commerce?
- 8. Write Business Strategy in an Electronic age
- 9. Explain Electronic Data Interchange(EDI)
- 10. Explain different Models of B2B Electronic Commerce?
- 11. Explain the Architecture of Internet?
- 12. Explain Business Models of Extranet Applications?
- 13. Explain Ethical and Other public Policy Issues?
- 14. Explain about the future of EC

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

COMPUTER SCIENCECCSC-606CE2020-21B.Com (C.A)	(++-++-++-+++++++++++++++++++++++++++++					
	COMPUTER SCIENCE	CCSC-606CE	2020-21	B.Com (C.A)		

**SEMESTER -VI** 

#### PAPER – X

Max. Marks 70

Pass Marks 28

#### Guidelines for paper setting <u>'E-COMMERCE'</u>

Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Vear 2020-'21)

	with Effect from	Academic 1 ea	11 2020- 21)
COMPUTER SCIENCE	CCSC-607CE	2020-21	B.Com (C.A)

#### 29

#### **SEMESTER –VI**

#### PAPER – XI

**Syllabus** 

#### PHP& MY SQL

Max.Marks:70

Credits 3

#### NO Of Hours 5

Pass Marks 28

#### **COURSE OUTCOMES:**

CO1: Understand the concepts Of PHP and PHP Basic Building Blocks.

**CO2:** Able to know the basic concepts Arrays and it's Working.

**CO3:** Understand the concepts of FORMS and working with FORMS.

CO4: Understand the concepts of FILES and DIRECTORIES.

CO5: Able to know how the interaction between MY SQL using PHP.

#### **Unit-I: Building blocks of PHP:**

Variables, Data Types, Operators and Expressions, Constants. Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output. Working with Functions: Defining Functions, Calling functions, returning the values from User Defined Functions, Variable Scope, Saving State between Function calls with the Static statement, more about arguments.

#### **Unit-II: Working with Arrays:**

Arrays, Creating Arrays, Some Array-Related Functions. Working with Objects: Creating Objects, Object Instance. Working with Strings, Dates and Time: Formatting Strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.

#### **Unit-III: Working with Forms:**

Creating Forms, Accessing Form – Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads. Working with Cookies and User Sessions: Introducing Cookies, Setting a Cookie with PHP, Session Function Overview, Starting a Session, Working with session variables, passing session Ids in the Query String, Destroying Sessions and Unsettling Variables, Using Sessions in an Environment with Registered Users.

#### **Unit-IV: Working with Files and Directories:**

Including Files with include(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files, Writing or Appending to a File, Working with Directories, Open Pipes to and from Process Using popen (), Running Commands with exec(), Running Commands with system () or passthru (). Working with Images: Understanding the Image-Creation Process, Necessary Modifications to PHP, Drawing a New Image, Getting Fancy with Pie Charts, Modifying Existing Images, Image Creation from User Input.

#### **Unit-V:Interacting with MySQL using PHP:**

MySQL Versus MySQL Functions, Connecting to MySQL with PHP, Working with MySQL Data. Creating an Online Address Book: Planning and Creating Database Tables, Creating Menu, Creating Record Addition Mechanism, Viewing Records, Creating the Record Deletion Mechanism, Adding Subentities to a Record.

References:

1. Julie C. Meloni, PHP MySQL and Apache, SAMS Teach You, Pearson Education (2007).

2. Xue Bai Michael Ekedahl, the Web Warrior Guide to Web Programming, Thomson (2006).

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2017-2018)

	COMPUTER SCIENCE	CCSC-607CE	2019-20	B.Com (C.A)	
SEMESTER –VI		PAPER – XI		Total:	60 Hrs

Syllabus Credits 3

## PHP & MYSQL NO Of Hours 5

Max.Marks:70 Pass Marks 28

<u>Section-A</u> Answer <u>Four</u> Questions. Each Question carries FIVE Marks.	4*5=20M
1. Explain about different data types available in PHP?	
2. Define function? Explain how to call the function?	
3. Explain about date and time functions?	
4. Write about Session Function?	
5. Explain about Reading from files?	
6. Describe how to create the Record Addition Mechanism?	
Section-B	
Answer <b><u>FIVE</u></b> Questions. Each Question carries <b>TEN</b> Marks.	5*10=50M
7. Explain different types of Operators in PHP?	
8. Explain flow control functions in PHP?	
9. What is an Array? Explain about array related functions.	
10. Explain different string functions in PHP?	
11. Explain about how to create and access a form in PHP?	
12. Describe the working with session variables?	
13. Explain working with Directories?	
14. Explain about how to insert and retrieve the data in PHP?	

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

(())					
COMPUTER SCIENCE	CCSC-607CE	2020-21	B.Com (C.A)		
SEMESTER -VI	PAPER – XI	Max. Marks	s 70 Pass Marks 28		

### Guidelines for paper setting 'PHP & MYSQL'

Unit wise weight age of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

	COMPUTER SCIENCE	CCSC-607CE	2020-21	B.Com (C.A)	
SEM	ESTER –VI	PAPER – X	I	Total: 60	Hrs

Lab List PHP, MySQL No. of Hours per week: 2

External: 25

Pass Marks 20 Internal: 25

Credits: 2

MySQL Lab Cycle

Cycle -1

An Enterprise wishes to maintain the details about his suppliers and other corresponding details. For that he uses the following details.

Suppliers (sid: Integer, sname: string, address: string) Parts (pid: Integer, pname: string, color: string)

Catalog (sid: integer, pid: integer, cost: real)

The catalog relation lists the prices charged for parts by suppliers.

Write the following queries in SQL:

- 1. Find the pnames of parts for which there is some supplier.
- 2. Find the snames of suppliers who supply every part.
- 3. Find the snames of supplier who supply every red part.
- 4. Find the pnames of parts supplied by London Supplier abd by no one else.
- 5. Find the sid's of suppliers who charge more for some part than the average cost of that part.
- 6. For each part, find the sname of the supplier who charges the most for that part.
- 7. Find the sid's of suppliers who supply only red parts.
- 8. Find the sid's of suppliers who supply a red and a green part.
- 9. Find the sid's of suppliers who supply a red or green part.
- 10. Find the total amount has to pay for that suppler by part located from London.

Cycle - 2

An organisation wishes to maintain the status about the working hours made by his employees. For that he uses the following tables.

Emp (eid: integer, ename: string, age: integer, salary: real)

Works (eid: integer, did: integer, pct\_time: integer)

Dept (did: integer, budget: real, managerid: integer)

An employee can work in more than one department; the pct\_time field of the works relation shows the percentage of time that a given employee works in a given department.

Resolve the following queries.

1. Print the names and ages of each employee who works in both Hardware and Software departments.

2. For each department with more than 20 full time equivalent employees (i.e., where the parttime and full-time employees add up to at least that many full-time employees), print the did's together with the number of employees that work in that department.

3. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she work in.

- 4. Find the managerid's of managers who manage only departments with budgets greater than 1,000,000.
- 5. Find the enames of managers who manage the departments with largest budget.
- 6. If a manager manages more than one department, he or she controls the sum of all the budgets for those departments. Find the managerid's of managers who control more than 5,000,000.
- 7. Find the managerid's of managers who control the highest amount.
- 8. Find the average manager salary.

#### PHP Lab Cycle

- 1. Write a PHP program to Display "Hello"
- 2. Write a PHP Program to display the today's date.
- 3. Write a PHP Program to read the employee details.
- 4. Write a PHP program to prepare the student marks list.
- 5. Write a PHP program to generate the multiplication of two matrices.
- 6. Write a PHP Application to perform demonstrate the college website.
- 7. Write a PHP application to add new Rows in a Table.
- 8. Write a PHP application to modify the Rows in a Table.
- 9. Write a PHP application to delete the Rows from a Table.
- 10. Write a PHP application to fetch the Rows in a Table.
- 11. Develop an PHP application to make following Operations
  - i. Registration of Users.
  - ii. Insert the details of the Users.
  - iii. Modify the Details.
  - iv. Transaction Maintenance.
    - a) No of times Logged in
    - b) Time Spent on each login.
    - c) Restrict the user for three trials only.
    - d) Delete the user if he spent more than 100 Hrs of transaction.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2019-'20)

	COMPUTE	ER SCIENCE	CSC-401C	2020-'21	B.Sc.(	MPCs., MCCs.)
SEMI	ESTER – IV	PAPER – IV	Max. Marks	70 Pass Ma	rks 28	Totals Hrs 60
<u>Syllabu</u>	<u>is</u> DATA STR	UCTURES	NO of Hours: 4	Credit	s: 3	
<u>COU</u>	RSE OUTCO	DMES:				

**CO1:** To Understand the Basic concepts of data structures and storage structures and file structures.

**CO2:** Implement operations on linear lists, Stacks, Queues and their applications.

**CO3:** Implement various sorting and searching techniques and to understand advantages.

**CO4:** To understand Trees concepts and implementations.

**CO5:** To understand Graphs concepts and implementations.

UNIT I

**Concept of Abstract Data Types (ADTs)-** Data Types, Data Structures, Storage Structures, and File Structures, Primitive and Non-primitive Data Structures, Linear and Non-linear Structures. Linear Lists - ADT, Array and Linked representations, Pointers.

Arrays - ADT, Mappings, Representations, Sparse Matrices, Sets - ADT, Operations Linked Lists: Single Linked List, Double Linked List, Circular Linked List, applications

#### **UNIT II**

Stacks: Definition, ADT, Array and Linked representations, Implementations and Applications

Queues: Definition, ADT, Array and Linked representations, Circular Queues, De-queues, Priority Queues, Implementations and Applications.

### **UNIT III**

Trees: Binary Tree, Definition, Properties, ADT, Array and Linked representations, Implementations and Applications. Binary Search Trees (BST) - Definition, ADT, Operations and Implementations, BST Applications. Threaded Binary Trees, Heap trees

### **UNIT IV**

Graphs – Graph and its Representation, Graph Traversals, Connected Components, Basic Searching Techniques, Minimal Spanning Trees

### UNIT- V

Sorting and Searching: Selection, Insertion, Bubble, Merge, Quick, Heap sort, Sequential And Binary Searching.

### **TEXT BOOKS**

1. Hubbard John R. and Hurray Anita, Data Structures with Java Paperback Prentice-Hall 2005 ISBN-10: 8120327454

2. Samanta D, Classic Data Structures, Prentice-Hall of India, 2001.

3. David Cousins, Introducing Data Structures with Java Kindle Edition, Pearson Education; First edition, 2011, ISBN-10: 8131758648, 464 pages

### **REFERENCE BOOKS**

- 1. Sahani S, Data Structures, Algorithms and Applications in C++, McGraw-Hill, 2002
- 2. D S Malik, Data Structures Using C++, Thomson, India Edition 2006
- 3. Tremblay P, and Sorenson P G, Introduction to Data Structures with Applications, Tata McGraw-Hill,

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2019-'20)

	COMPUTE	<b>CR SCIENCE</b>	CS	C-401C	2020-'21	B.Sc.(MPCs., MCCs.)
SEME	ESTER – IV	PAPER – IV	Max	Marks 70	Pass Mark	as 28 Totals Hrs 60
Mode	<u>l Paper</u> DATA	STRUCTURE	ËS	NO Of Ho	urs: 4	Credits: 3

#### Section- A

Answer FOUR Questions. Each Question carries FIVE Marks. 4\*5=20M

## **10 Hrs**

15 Hrs

15 Hrs

#### 10 Hrs

**10Hrs** 

- 1. Explain about Primitive & Non primitive Data Structures?
- 2. Explain about Single Linked List?
- 3. Write about Applications of Stack?
- 4. Write a Short note on Binary tree?
- 5. What is Graph? How to represent the Graph
- 6. Write a program to sort the elements in bubble sort?

#### Section- B

#### Answer <u>FIVE</u> Questions. Each Question carries TEN Marks5\*10=50M

- 7. Explain Linked representation with array? With an Example?
- 8. Explain Sparse Matrix?
- 9. Explain stack operations?
- 10. What is a Queue? Explain Queue implementation?
- 11. Explain Tree traversing methods?
- 12. Explain Binary search tree?
- 13. Explain about BFS and DFS?
- 14. Explain about sequential and binary searching?

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2019-'20)

	COMPUTER SCIENCE	CSC-401C	2020-'21	B.Sc.(MPCs., MCCs.)
SEMESTER – IV		PAPER – IV		Max. Marks 70

#### Guidelines for paper setting 'DATA STRUCTURES'

Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section -A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	COMPUTER SCIENCE		CSC-401P	2020-'21	B.Sc.(MPCs., MCCs.)
SEME	ESTER – IV	PAPER – IV	Max. Marks 50	Pass Marks 2	20 Total Hrs:28
LAB L	IST	DATA	STRUCTURES		
No. of 1	Hours per we	ek: 2 Exte	rnal: 25	Internal: 25	Credits: 2

(With Effect from Academic Year 2019-'20)

- 1. Write a Program to implement the Linked List operations
- 2. Write a Program to implement the Stack operations using an array.
- 3. Write Programs to implement the Queue operations using an array.
- 4. Write Programs to implement the Stack operations using a singly linked list.
- 5. Write Programs to implement the Queue operations using a singly linked list.
- 6. Write a program to search an item in a given list using Linear Search and Binary Search
- 7. Write a program for Quick Sort
- 8. Write a program for Merge Sort
- 9. Write a program for insertion sort
- 10. Write a program for Bubble Sort.
- 11. Write a program for Selection Sort.
- 12. Write a program for Graph traversals

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2019-'20)

	COMPUTER SC	CIENCE	CCSC 4030		2020-'21	B.Com.(C.A.)
SEM	ESTER – IV	PAPER	R – IV N	lax. N	Marks 70	
Syllabus PROGMAMMING IN C				IN C		
<u>NO Of</u>	NO Of Hours: 5No Of Credits: 3 Pass Marks 28					s 28
COUR	COURSE OUTCOMES:					

**CO1:** Analyze a given problem and develop an algorithm to solve the problem

CO2:Understand the C tokens and control structures.

**CO3:** Understand to handle arrays and strings

**CO4:**Use the 'C' language constructs in the right way using pointers, structures and unions

**CO5:** Design, develop and test programs written in 'C' files.

#### .Unit- I: Introduction to Algorithms and Programming Languages:

Algorithm – Key features of Algorithms – Some more Algorithms – Flow Charts. Introduction to C: Structure of C Program – Writing the first C Program – Compiling and Executing C Programs Using Comments – Keywords – Identifiers – Basic Data Types in C – Variables Constants – I/O Statements in C- Operators in C- Programming Examples – Type Conversion and Type Casting

#### **Unit-II: Decision Control and Looping Statements**

Introduction to Decision Control Statements – Conditional Branching Statements – Iterative Statements - Nested Loops - Break and Continue Statement - Go to Statement

#### **Unit- III: Functions**

Introduction – using functions – Function declaration/ prototype – Function definition – function call – return statement – Passing parameters – Scope of variables – Storage Classes – Recursive function

#### **Unit- IV: Arrays**

Introduction – Declaration of Arrays – Accessing elements of the Array – Storing Values in Array Calculating the length of the Array – Operations on Array – one dimensional array for inter-function communication – Two dimensional Arrays –Operations on Two Dimensional Arrays

Strings: Introduction String and Character functions

#### **Unit-V: Pointers:**

Understanding Computer Memory – Introduction to Pointers – declaring Pointer Variables Passing Arguments to Functions using Pointer.

Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Unions – Enumerated Data Types.

#### **Reference Books:**

1. Reema Thareja, Introduction to C programming, Oxford University Press.

2. E Balagurusamy, Computing Fundamentals & C Programming – Tata McGraw-Hill, 2008.

3. Ashok N Kamthane, Programming with ANSI and Turbo C, Pearson Publisher, 2002.

4. Henry Mulish & Hubert L.Coo Reema Thareja: The Spirit of C: An Introduction to Modern Programming, Jaico Publishing House, 1996.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

#### An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2019-'20)

	COMPUTER SCIENCE	CCSC 403C	2020-'21	B.Com.(C.A.)		
SEMESTER – IV PAPER – IV Max. Marks 70						
Model Paper		PROGMAMMING IN C		Pass Marks: 28		
	Answer <u>FOUR</u> Questions. E	4*5=20M				

1. Write a short note on Algorithm?

## 12 Hrs

12 Hrs

#### 12 Hrs

12 Hrs

#### 12 Hrs

- 2. Explain data types in C?
- 3. Write a short note on 'if'- statements?
- 4. Describe recursive function with an example?
- 5. Explain one dimensional array with example?
- 6. Write about pointers

#### Section-B

Answer **<u>FIVE</u>** Questions. Each Question carries **TEN** Marks **5\*10=50M** 

- 7. Explain different types of programming languages?
- 8. Explain about different Categories of Operators in 'C'?
- 9. Explain Decision Making Looping statements with examples?
- 10. Explain different categories of functions?
- 11. Explain about Storage Classes?
- 12. Write about two dimension arrays? Give an example program?

13. Explain briefly about String function in 'C'?

14. Difference between Structures and Unions?

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2019-'20)

	COMPUTE	R SCIENCE	CCSC	403C	2020-'21	B.Com.(C.A.)
SEM	ESTER –I V	PAPE	R - V	Max	Marks 70	Pass Marks: 28
		<b>a · · · · ·</b>		. (DDO		

#### Guidelines for paper setting <u>'PROGMAMMING IN C'</u>

Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2

Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

41

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2019-20)

COMPUTER SCIENCE	CCSC-403P	2020-'21	B.Com.(C.A.)			
SEMESTER – IV PAPEI	R – IV Max. N	Iarks 50	Pass Marks 20			
LABLISTPROGRAMMING IN C						
No. of Hours per week: 2	External: 25	Internal: 25	Credits: 2			

- 1. Find out the given number is perfect number or not using c program.
- 2. Write a C program to check whether the given number is Armstrong or not.
- 3. Write a program to find roots of quadratic equation.

Root  $1 = (-b + \text{sqrt} (b^2 - 4ac) / 2a$  Root  $2 = (-b - \text{sqrt} (b^2 - 4ac) / 2a$ 

- 4. Write a C program to find the sum of individual digits of a positive integer.
- 5. Write a C program to print the Fibonacci series
- 6. Write a C program to generate the first n terms of the Fibonacci sequence.
- 7. Write a program to find factorial of a given number using recursion
- 8. Write a program to perform all arithmetic operations using switch case
- 9. Write a C program to generate all the prime numbers between 1 and n, where n is a Value supplied by the user.
- 10. Write a C program to find both the largest and smallest number in a list of integers.
- 11. Write a C program that uses functions to perform the following:
  - a. Addition of Two Matrices
  - b. Multiplication of Two Matrices
- 12. Write a program to perform various string operations
- 13. Write a program to swap two numbers using pointers.
- 14. Write C program that implements searching of given item in a given list
- 15. Write a C program to sort a given list of integers in ascending order

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-'21)

	COMPUTE	ER SCIENCE	CSC-201C	2020-'21	B.Sc.(MPCs., MCCs.)
SEM	ESTER – II	PAPER – II	Max. Marks 70	Pass Marl	ks 28 Total Hrs: 60

#### SyllabusDATA STRUCTURES USING C NO. Of. Hours: 4Credits:3

#### **Course Objectives**

To introduce the fundamental concept of data structures and to emphasize the importance of various data structures in developing and implementing efficient algorithms.

#### **COURSE OUTCOMES:**

CO1: Understand available Data Structures for data storage and processing.

**CO2:**Comprehend Data Structure and their real-time applications - Stack, Queue, Linked List, Trees & Graph **CO3:** Choose a suitable Data Structures for an application

CO4: Develop ability to implement different Sorting and Search methods

**CO5:**Have knowledge on Data Structures basic operations like insert, delete, search, update and traversal **CO6:** Design and develop programs using various data structures

**CO7:** Implement the applications of algorithms for sorting, pattern matching etc

#### UNIT – I:

**Introduction to Data Structures:** Introduction to the Theory of Data Structures, Data Representation, Abstract Data Types, Data Types, Primitive Data Types, Data Structure and Structured Type, Program Design, Algorithms, Different Approaches to Designing an Algorithm, Complexity, Big 'O' Notation, Algorithm Analysis.

Arrays: Introduction to Linear and Non- Linear Data Structures, One- Dimensional Arrays, Array Operations, Two- Dimensional arrays, Multidimensional Arrays, Pointers and Arrays, an Overview of Pointers

#### UNIT – II:

Linked Lists: Introduction to Lists and Linked Lists, Dynamic Memory Allocation, Basic Linked List Operations, Doubly Linked List, Circular Linked List.

Stacks: Introduction to Stacks, Stack as an Abstract Data Type, Representation of Stacks through Arrays, Representation of Stacks through Linked Lists, Applications of Stacks, Stacks and Recursion

Queues: Introduction, Queue as an Abstract data Type, Representation of Queues, Circular Queues, Double Ended Queues- Deques, Priority Queues, Application of Queues

#### UNIT – III:

#### Binary Trees: Introduction Non- Linear Data Structures, Introduction Binary Trees, Types of Trees, Basic Definition of Binary Trees, Properties of Binary Trees, Representation of Binary Trees, Operations on a Binary Search Tree, Binary Tree Traversal, Counting Number of Binary Trees, Applications of **Binary Tree**

#### UNIT – IV:

#### 10Hrs

**10Hrs** 

Graphs: Introduction, Terms Associated with Graphs, Sequential Representation of Graphs, Linked Representation of Graphs, Traversal of Graphs, Spanning Trees, Shortest Path, Application of Graphs. UNIT – V: **10Hrs** 

Searching and sorting: An Introduction, Bubble Sort, Insertion Sort, Merge Sort, Searching – An Introduction, Linear or Sequential Search, Binary Search, Indexed Sequential Search **10Hrs** 

#### UNIT – VI:

Term Papers: Introduction, Latest Topics for Pursuing Research in Technology and Computer Science, Literature survey.

#### Note: Unit VI only for Internal Assessment **BOOKS:**

1. "Data Structures using C", ISRD group Second Edition, TMH

2. "Data Structures through C", Yashavant Kanetkar, BPB Publications

3. "Data Structures Using C" Balagurusamy E. TMH

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-'21)

COMPUTER SCIENCE	CSC-201C	2020-'21	B.Sc.(MPCs., MCCs.)
------------------	----------	----------	---------------------

#### SEMESTER – II PAPER – II Max. Marks 70 Pass Marks 28

### Model PaperDATA STRUCTURES USING C NO. Of. Hours: 4Credits:3

#### Section- A Answer FOUR Questions. Each Question carries FIVE Marks. 4\*5=20M

1. Define an array? Write about its operations.

2. Explain about Dynamic Memory Allocation.

## **10Hrs**

**10Hrs** 

- 3. Write about applications of Stack?
- 4. What is Binary Tree? What are the applications of Binary Tree?
- 5. Describes minimum spanning trees?
- 6. Describes bubble Sort with example?

#### Section-B

#### Answer <u>FIVE</u> Questions. Each Question carries TEN Marks5\*10=50M

- 7. Explain about ADT and Primitive data types?
- 8. Write about two dimension arrays? Give an example
- 9. Explain about Double linked Lists?
- 10. What is Queue? How to Represent a Queue
- 11. Explain about Binary Tree Traversal methods?
- 12. Explain about binary search trees?
- 13. Explain about Graphs Traversal?
- 14. Explain about Linear search & Binary search

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-'21)

	COMPUTE	ER SCIENCE	CSC-201C	2020-'21	B.Sc.(MPCs., MCCs.)
SEM	ESTER – II	PAPER – II	Max. Marks 70	Pass Mar	ks 28

#### Guidelines for paper setting 'DATA STRUCTURES USING C'

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	1	2
Unit-2	2	2

Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

45

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

CO	MPUTER SCIENCE	CSC-201C	2020-21	B.Sc.(MPCs	., MCCs.)
SEMES	TER –II	PAPER – II		Tot	al: 60 Hrs
Lab List	DATA STRUCTU	JRES USING C'		Pass M	arks 20
No. of He	ours per week: 2	External: 25	Inte	rnal: 25	Credits:

#### 2DATA STRUCTURES USING C LAB CYCLE

1. Write a program to read 'N' numbers of elements into an array and also perform the following operation on an array

- a. Add an element at the begging of an array
- b. Insert an element at given index of array
- c. Update a element using a values and index

- d. Delete an existing element
- 2. Write a program using stacks to convert a given
  - a. postfix expression to prefix
  - b. prefix expression to postfix
  - c. infix expression to postfix
- 3. Write Programs to implement the Stack operations using an array
- 4. Write Programs to implement the Stack operations using Liked List.
- 5. Write Programs to implement the Queue operations using an array.
- 6. Write Programs to implement the Queue operations using Liked List.
- 7. Write a program for arithmetic expression evaluation.
- 8. Write a program for Binary Search Tree Traversals
- 9. Write a program to implement dequeue using a doubly linked list.
- 10. Write a program to search an item in a given list using the following Searching Algorithms
  - a. Linear Search
- b. Binary Search.
- 11. Write a program for implementation of the following Sorting Algorithms
  - a. Bubble Sort
  - b. Insertion Sort
  - c. Quick Sort
- 12. Write a program for polynomial addition using single linked list

13. Write a program to find out shortest path between given Source Node and Destination Node in a given graph using Dijkstrar's algorithm.

14. Write a program to implement Depth First Search graph traversals algorithm

15. Write a program to implement Breadth First Search graph traversals algorithm.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-'21)

COMPUTER SCIENCECCSC-203C2020-'21B.Com.(C.A)
--

SEMESTER –II PAPER – II Max. Marks 70 Pass Marks 28 Totals Hrs 60 <u>Syllabus</u>E-COMMERCE & WEB DESIGNING NO. Of. Hours: 4Credits:3

- **CO1:** Students would be able to analyse the concept of business models and standards.
- CO2: Students would be able to understand the electronic market and market place.
- CO3: Students would be able to understand the Hardware and Software of Server.
- **CO4:** Understand the basic structure of a HTML design and develop a website using different text Formatting tags, images, links, lists and tables.

**CO5:** Understand to style a webpage using CSS.

#### Unit I: Introduction:

#### 10Hr's

Introduction to Internet: Internet Terminology History of the Internet Advantages& disadvantages of Internet how internet works

Electronic Commerce: Definition, types, advantages and disadvantages, E-Commerce transaction on World Wide Web. Electronic Market-Online shopping, three models of ElectronicMarket-E-Business.

#### **Unit-II: E-payment System**

Models and methods of e-payments (Debit Card, Credit Card, Smart Cards, emoney) Digital Signatures (Procedure, Working and Legal Position), Payment Gateways, Online Banking (Meaning, Concepts, Importance), Risks Involved in e-payments.

#### **Unit-III: On-line Business Transactions:**

Meaning, Purpose, Advantages and Disadvantages of Transacting Online, E-Commerce Applications in Various Industries Like (Banking, Insurance, Payment of Bills), Benefits, ProblemsandFeatures,OnlineServices(Financial,TravelandCareer),OnlineLearning,Online Shopping (Amazon, Flipkart, etc.)

Unit-IV: Website Designing

10Hr's Introduction to HTML: Basic HTML, HTML document structure HTML tags Base font tag titletagbodytagHorizontalRuleTag-

TextformattingtagsCharactertags.HTMLLists:OrderedList,UnorderedList&DefinitionListUsingc olors UsingImages

#### Unit V: Website Designing: Hyperlinks:

Textual links, Graphical links, And types of document links, anchor tag, Image Tag HTML Tables tablecreationstags, Nested Tables, Frames: Frame introduction-framecreation tags Nested Frames, Forms.

#### Unit VI: Ms Excel:

Overview of Excel features – Creating a new worksheet, Selecting cells, Entering and editing Text, Numbers, Formulae, Referencing cells - Inserting Rows/Columns - Changing column widths and row heights, auto format, changing font sizes, colors, shading and attributes - Data Sorting and Filters -Functions – Functions requiring Addins, Functions by category Creating different types of Charts

### Note: Unit VI only for Internal Assessment

References: 1.E-commerceandE-Business, Himalayapublishers

2. E-Commerce by Kenneth C Laudon, PEARSONINDIA

3. WebDesign:IntroductorywithMind TapJenniferTCampbell,CengageIndia

4.Html & Web Design:Tips& Techniques Jamsa, Kris, McgrawHill

5. FundamentalsOfWebDevelopmentbyRandyConnolly,RicardoHoar,

6.HTML & CSS: COMPLETE REFERENCE POWELL, THOMAS, McGraw-Hill,

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-'21)

	COMPUTE	CR SCIENCE	CCSC-203C	2020-'21	B.Com.(C.A)
SEME	ESTER –II	PAPER – II	Max. Marks 70	Pass Marks 2	28 Totals Hrs 60

### MODEL PAPER: E-COMMERCE & WEB DESIGNING NO. Of. Hours: 4Credits:3

**Time:3Hours** 

#### Max. Marks:70

#### **SECTION-A**

#### Answer any **Four** of thefollowingQuestions:

4 x 5= 20Marks

- 1. Define Internet. Write disadvantages of Internet
- 2. Define e-paymentsystem

#### 10Hr's

10Hr's

**10Hr's** 

10Hr's

- 3. Write the purpose of online businesstransaction
- 4. Briefly explain HTML documentstructure
- 5. Define Formatting tags?
- 6. Write about Image tag?

#### **SECTION - B**

#### Answer any **<u>FIVE</u>** of thefollowingQuestions

5 \*10 =50Marks

- 7. Explain the working of Internet?
- 8. What is e-commerce? Write about the three models of e-market?
- 9. Explain about Paymentgateways?
- 10. Explain the features of online shopping with an example?
- 11. Write in detail about text formatting tags inHTML?
- 12. Write about lists inHTML?
- 13. Explain different types hyperlinks used in a webpage?
- 14. Explain about forms inHTML?

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-'21)

	COMPUTER SCIENCE	CSC-203P		2020-21	B.Com.(C.A.)			
SEMES	STER – II	PAPER – II			Max. Marks: 50			
E-CON	E-COMMERCE & WEB DESIGNINGLAB							
No. Of Hours per week: 2 External: 25 Internal: 25 Credits								
Lab list E-CON	IMERCE & WEB DESIG	NING Lab List						
1.								
2. advantages and disadvantages, E-Commerce								
3.	3. Explain about Paymentgateways? E-Commerce							

- 4. Applications in Various Industries
- 5. Creation of simple web page using formattingtags
- 6. Creation of listsand Tables.
- 7. Creation of web page with text tags
- 8. Creation of tables withattributes
- 9. Creation of hyperlinks
- 10. Creation of hyperlinks and includingimages
- 11. Creation offorms
- 12. Creation offrame sets

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2018-'19)

COMPUTER SCIENCE	CCSC-203	2019-'20	B.Com.(C.A)
SEMESTE	R – II PAPEI	R – II Max. M	Iarks 70

Guidelines for paper setting 'E-COMMERCE & WEB DESIGNING'

Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	1	2
Unit-2	1	1
Unit-3	1	1
Unit-4	1	1

Unit -5	2	2

50

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-'21)

|--|

SEMESTER – IIPAPER – IMax. Marks 50 Pass Marks 20 Total Hrs: 30

#### SyllabusINFORMATION & COMMUNICATION TECHNOLOGYNO. Of Hrs: 2Credits: 2

#### **Objectives:**

This course aims at acquainting the students with basic ICT tools which help them in their day to day and life as well as in office and research.

**<u>COURSE OUTCOMES</u>**: After completion of the course, student will be able to;

**CO1.** Understand the literature of social networks and their properties.

CO2. Explain which network is suitable for whom.

CO3. Develop skills to use various social networking sites like twitter, flicker, etc.

**CO4.** Learn few GOI digital initiatives in higher education.

**CO5.** Apply skills to use online forums, docs, spreadsheets, etc for communication, collaboration and research.

**CO6**. Get acquainted with internet threats and security mechanisms

#### **Unit-I: Basics of Computers**

Definition of a Computer - Characteristics and Applications of Computers – Block Diagram of computer, What is Network, Definition, Network Types, Network Topologies, OSI MODEL UNIT-II: 8 Hrs

**Fundamentals of Internet**: What is Internet?, Internet applications, Internet Addressing –Entering a Web Site Address, URL–Components of URL, Searching the Internet, Browser –Types of Browsers, Introduction to Social Networking: Twitter, Tumbler, LinkedIn, Face book, flicker, Skype, yahoo, YouTube, WhatsApp . UNIT-III: 8 Hrs

**E-mail**: Definition of E-mail -Advantages and Disadvantages –User Ids, Passwords, Email Addresses, Domain Names, Mailers, Message Components, Message Composition, Mail Management.

**G-Suite**: Google drive, Google documents, Google spread sheets, Google Slides and Google forms. **UNIT-IV**:

**Overview of Internet security**, E-mail threats and secures E-mail, Viruses and antivirus software, Firewalls, Cryptography, Digital signatures, Copyright issues.

What are GOI digital initiatives in higher education? (SWAYAM, SwayamPrabha, National Academic Depository, National Digital Library of India, E-Sodh-Sindhu, Virtual labs, e-acharya, e-Yantra and NPTEL).

#### **Reference Books:**

1. In-line/On-line: Fundamentals of the Internet and the World Wide Web, 2/e – by Raymond Green law and Ellen Hepp, Publishers: TMH

2. Internet technology and Web design, ISRD group, TMH.

3. Information Technology – The breaking wave, Dennis P.Curtin, Kim Foley, Kunai Sen and Cathleen Morin, TMH.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-'21)

	COMPUTER SCIENCE	ICT-I-201C	2020-'21	B.A, B.Com, B.Sc.						
SEMESTER – IIPAPER – IMax. Marks 50 Pass Marks 20										
Model paper INFORMATION & COMMUNICATION TECHNOLOGYNO. Of Hrs: 2Credits: 2										
	SECTION-A Angeway FOLID of the following questions									
Answer FOUR of the following questions4x5=20M										
1.	1. Explain characteristics of Computer?									
2.	2. Explain about network Topologies?									
3.	3. Write about URL and its components?									
3.	Write about URL and its con	ponents?								

#### 6 Hrs What i

8Hrs

- 4. Explain about Internet Applications?
- 5. Explain about Message Composition?
- 6. Write about Google Spread Sheet?
- 7. Write about Viruses and antivirus software?
- 8. Explain about NPTEL?

#### **SECTION-B**

#### Answer **<u>THREE</u>** of the following questions

3X10=30M

- 9. Explain Block diagram of a Computer?
- 10. Explain OSI MODEL in Detail?
- 11. Explain Social Networking Sites?
- 12. Explain about Mail Management? Write advantages and Disadvantages of Email?
- 13. Explain Different types of Firewalls?

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-'21)

	COMPUTER SCIENCE	ICT-I-201	2019-'20	B.A, B.Com., B.Sc.			
SEMES	STER – II	PAPER – I		Max. Marks 50			

Guidelines for paper setting 'INFORMATION & COMMUNICATION TECHNOLOGY'

Unit wise weight age of Marks

	Section-A	Section-B			
	(Short answer questions)	(essay questions)			
Unit-1	2	2			
Unit-2	2	1			
Unit-3	2	1			
Unit-4	2	1			

	53
	٦

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

## A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

## VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

## Accredited by NAAC with "A" Grade

## 2021-2022



## **DEPARTMENT OF COMPUTER SCIENCE**

## **MINUTES OF BOARD OF STUDIES**

## **EVEN SEMESTER**

07-04-2022

B.Sc. (MPCs, MCCs, M Development Course of A	ISCs), B.Com	. (C.A.), B.Com (e-Commerce) and Life Skill Course and Sk
on 07-04-2022 in the Den	artment of C	lartha Degree College of Arts & Science, Vuyyuru, held at 2.30 P.
Sri T.NagaPrasadaRao	Proc	iputer Science.
Members Present:		liding
1)	Chair	mon II I P
(T.NagaPrasadaRao)	Chan	AG & SG Siddhartha Degree College of Arts & Science.
2)	University	Principal University of the
(Dr. M. Babu Reddy)	Nomine	KRU, Machilipatnam.
3)	Subject	Principal AND Call Call
(Dr. P. J. S Kumar)	Expert	Department of Computer Science
4)	- Subject	Denuty Head Danata and Co
(Mr. K. Sridhar)	Expert	PB Siddhartha College of Arts & Science, Vijayawada.
5) - Trepowjanya	- Industrial	Net Developer Mayor S-0.0
(R. Sowjanya)	Expert	Madaapur, Hyderabad
6) F. J. Kelothi	Member	Lecturer in Computer Science, AC & DC State
(1. Keerthi)		Degree College of Arts & Science, Vuyyuru
1)	Member	Lecturer in Computer Science AG & SC State
(A Srikanth)		Degree College of Arts & Science, Vuene College
and		o status de betenee, vuyyuru-521165.
S Prabharathi)	. Member	Lecturer in Computer Science, AG & SG Siddhartha
	2	Degree College of Arts & Science, Vuyyuru-521165
)A. Ordivan	Member	Lecturer in Computer Science 4 G a
A. Sravani)		Degree College of Arta & Science, AG & SG Siddhartha
in (malle)		- spice conege of Aris & Science, Vuyyuru-521165
(0)	Member	Lecturer in Computer Science AC & GG Street
N.MalleswraRao)		Degree College of Arts & Science, V
1 Bul		se serence, vuyyuru-521165
A Noor Camina D	Member	Lecturer in Computer Science, AG & SC State
Naga Shqivasa Rao)		Degree College of Arts & Science, Vuyyuru-521165
/ Munni)	Member	Lecturer in Computer Science AG & SC Stan
14. Augeri		Degree College of Arts & Science, Vuyyuru-521165
Sunriva)	Member	Lecturer in Computer Science AG & SC Statum
(Supriya)		Degree College of Arts & Science, Vuvvuru-521165
k: Rajya Lakshon?	Mamh	
K. Rajya Lakshmi)	wiember	Student in M.Sc. Computer Science, AG& SG Siddhartha
-M.Jyothi	Member	Degree College of Arts & Science, Vuyyuru-521165
	wiennber	Student in B.Sc. Computer Salar

#### Agenda for B.O.S Meeting.

- 1. To Discuss and approve the Structure and Syllabi, Model Question Paper for Second Semester of B.Sc.(MPCs, MCCs. MSCs) & B.Com (C.A), B.Com(e-commerce-computers) Programs for the student are admitted from the Academic Year 2021-22.
- 2. To discuss introducing B.Com (e-commerce-computers) and B.Sc.(M.S.Cs) in Second semester for the students admitted in academic year 2021 2022
- To Discuss and approve the Structure and Syllabi, Model Question Paper for Fourth Semester of B.Sc.(MPCs, MCCs.) & B.Com (C.A) Programs for the Academic Year 2021-22.
- To Discuss and approve the Structure and Syllabi, Model Question Paper for Six Semester of B.Sc.(MPCs, MCCs.) & B.Com (C.A) Programs for the Academic Year 2021-22.
- 5. To recommend any changes in the syllabi for II, IV, VI Semesters of I, II, III year Degree B.Sc.(MPCs, MCCs, MSCs), B.Com.(C.A.) and B.Com(e-commerce).
- 6. To recommend the teaching and evaluation methods to be followed under Autonomous status.
- 7. To recommend the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG & SG Siddhartha Degree College of Arts & Science College, Vuyyuru.
- 8. Any other matter

#### Resolutions.

- It is Resolved and Recommended to adopt the structure and syllabi and Model Question Papers for second semester of B.Sc.(MPCs, MCCs, MSCs) & B.Com (C.A), B.Com(e-Commerce-computers) Programs under CBCS(Choice Based Credit System) Approved by the Academic Council from the Academic Year 2021-22.
- 2) It is Resolved and Recommended to adopt the structure and syllabi and Model Question Papers for Second semester of B.Sc.(MCCs) & B.Com (e-commerce-computers), Programs under CBCS(Choice Based Credit System) Approved by the Academic Council from the Academic Year 2021-22
- 3) It is resolved and recommended to introduce new structure for 4<sup>th</sup> semester of B. Sc. (MPCS, MCCS) and B.Com(CA) programmes in line with APSCHE guidelines for the students admitted in academic year 2020 2021 and onwards
- 4) It is Resolved and Recommended to adopt the structure and syllabi and Model Question Papers for six semester of B.Sc.(MPCs, MCCs) & B.Com (C.A), Programs under CBCS(Choice Based Credit System) Approved by the Academic Council from the Academic Year 2020-21
  - 5) It is Resolved and Recommend any changes in the syllabi for II, IV, VI Semesters of I, II, III year Degree B.Sc.(MPCs, MCCs, MSCs), B.Com.(C.A.) and B.Com(e-commerce).
    - > It is Resolved and Recommend change Syllabi and Model Question paper as per new regulations in IV Semester of II Year Degree B.Sc. (MPCs, MCCs) and B.Com(CA).
    - It is Resolved and recommend NO changes in the syllabi for VI Semester of III Year B.Sc.(MPCs, MCCs) & B.Com.(CA).
  - 6) It is resolved to continue the teaching and evaluation methods to be followed under Autonomous status.
  - 7) It is resolved to continue the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG & SG Siddhartha Degree College of Arts & Science College, Vuyyuru.
  - 8) Any other matter

### Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of LMS and LCD projector to display on power board etc..for better understanding of concepts.

### Evaluation of a student is done by the following procedure:

There are two components in the Valuation and Assessment of a student – Internal Assessment (IA) Semester Examinations (SE). For the Batch of Students Admitted from 2021-22.

#### Internal Assessment (IA)

- The maximum mark for IA is 25 and SE is 75 for theory; and for practical marks for IA 10 and 40 Marks for External Exam.
- Each IA written examination is of 1 hour 30 minutes duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /PPT/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation.
- The semester examination will be of 3 hours with maximum 75 marks.
- There are no passing minimum marks for IA.

#### Internal Assessment (IA) For the Batch of Students Admitted from 2019-20.

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical marks for IA 10 and 40 Marks for External Exam.
- Each IA written examination is of 1 hour 30 minutes duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /PPT/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation.
- For attendance 5 Marks are allotted.
- The semester examination will be of 3 hours with maximum 70 marks.
- There are no passing minimum marks for IA.

#### Semester Examinations (SE)

- A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.
- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration & Foundation course 2 hours irrespective of the number of credits allotted to it.
- If a candidate fails to obtain pass marks even after the due to less mark in the IA examination, the
  marks of the next examination will be converted to be out of 100.
- Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/she gets 40/100) and the result shall be declared as 'PASS'.
- The maximum marks for each Paper shall be 100.

Question paper guide lines for Practical Examinations at the end of Semesters II, IV & VI Two Practical Programs to be conducted out of 15 programs at the end of Semester II, IV & VI Practical Examination time 3Hrs and Maximum Marks 50 Scheme of valuation Semesters – I, III & V B.Sc.& B.Com.(C.A), Computer Science Practical's - External (Time: 3 hrs.) Total Marks: 40M

rks,
rks
rks

#### **Computer Science Practical's- Internal**

Total Marks: 10 M

1. . Record

6.) Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council.

10 marks

7) Discussed and empowered the HOD to suggest the panel of the paper setters and examiners to the controller of the examinations.

 We implemented online certificate courses such as NPTL, APSSDC - PYTHON, R- Programming, Amazon Web services and JAVA -----etc. To fill the curriculum gaps from II year Degree on words
 Suggestions

١. Chairman

## A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

## DEPARTMENT OF COMPUTER SCIENCE

LIST OF THE COURSES REVISED/ INTRODUCED IN II, IV & VI										
		S	EMF	ESTERS	-2021-2	2 <mark>2</mark>				
S. NO	Name of the Course	Course Code	SE M No	Type of the Paper	Total Marks	IA TEST	SEE	Teaching Hours	Credi ts	Offered to (Name of the Programme)
1	Data Structures	CSCT21B	II	Core	100	25	75	4	3	B.Sc (MPCs, MCCs, MSCs)
2	Data Structures Lab	CSCT21B	Π	Core Lab	50	10	40	2	1	B.Sc (MPCs, MCCs, MSCs)
3	E– COMMERCE & WEB DESIGNING	CABT21A	II	Core	100	25	75	4	3	B.Com(CA)
4	Web Design Lab	CABT21A	Π	Core Lab	50	10	40	2	1	B.Com(CA)
5	Information Technology	CABT21A	II	Core	100	25	75	4	4	B.Com(ecomm erce- Computers)
6	Computer Applications	CABT22A	II	Core	100	25	75	4	3	B.Com(ecomm erce- Computers)
7	Computer Application Lab	CABT22A	II	Core Lab	50	10	40	2	1	B.Com(ecomm erce- Computers)
8	Digital Marketing	SDCCSC02	II	SDC	50	10	40	2	2	B.Sc (MPCs, MCCs, MSCs)
9	Oop's With JAVA	CSCT01	IV	Core	100	30	70	4	3	B.Sc (MPCs, MCCs)
10	Oop's With JAVA Lab	CSCT01	IV	Core Lab	50	10	40	2	1	B.Sc (MPCs, MCCs)
11	Operating System	CSCT41C	IV	Core	100	30	70	4	3	B.Sc (MPCs, MCCs)
12	Operating system Lab	CSCT41C	IV	Core Lab	50	10	40	2	1	B.Sc (MPCs, MCCs)
13	DBMS	CCSE401G	IV	Core	100	30	70	4	3	B.Com(CA)
14	DBMS Lab	CCSC401P	IV	Core Lab	50	10	40	2	1	B.Com(CA)
15	Oop's With JAVA	CCSC402G	IV	Core	100	30	70	4	3	B.Com(CA)
16	Oop's With JAVA Lab	CCSC402P	IV	Core Lab	50	10	40	2	1	B.Com(CA)
17	Web Technology	CSC601GE	VI	Core	100	30	70	4	3	B.Sc (MPCs, MCCs)

18	Web Technology Lab	CSC601GE	VI	Core Lab	50	10	40	2	2	B.Sc (MPCs, MCCs)
19	PHP& My sql, Word Press	CSC602CE	VI	Cluster	100	30	70	4	3	B.Sc (MPCs, MCCs)
20	PHP& My sql Lab	CSC602CE	VI	Cluster Lab	50	10	40	2	2	B.Sc (MPCs, MCCs)
21	Java Script/Ajax	CSC603CE	VI	Cluster	100	30	70	4	3	B.Sc (MPCs, MCCs)
22	Java Script Lab	CSC603CE	VI	Cluster Lab	50	10	40	2	2	B.Sc (MPCs, MCCs)
23	Project	CSC604CE	VI	Cluster	100	30	70	4	4	B.Sc (MPCs, MCCs)
24	Tally	CCSC605CE	VI	Core	100	30	70	4	3	B.Com(CA)
25	Tally Lab	CCSC605P	VI	Core Lab	50	10	40	2	2	B.Com(CA)
26	E-Commerce	CSC606CE	VI	Core	100	30	70	5	5	B.Com(CA)
27	PHP & MY Sql	CCSC606CE	VI	Core	100	30	70	4	3	B.Com(CA)
28	PHP & MY Sql Lab	CCSC606P	VI	Core	50	10	40	2	2	B.Com(CA)
		TOTAL	(Maxin	num)	2100	550	1550	85	66	


A.G. & S.G. Siddhartha Degree College of Arts & Science Vuyyuru-521165, Krishna District, Andhra Pradesh (An Autonomous institution in the jurisdiction of Krishna University, Machilipatam) NAAC "A" Grade, ISO 9001:2015 Certified Institution

## DEPARTMENT OF COMPUTER SCIENCE

Minutes of the meeting of Board of Studies in Computer Science for UG held on 07-04-2022in the Department of Computer Science.

Semester	:	Π	Programme	:	MPCS,MCCS,MSCS
Course	:	DATA STRUCTURES	Course Code	:	22CS2T3
Course delivery method	:	Class room / Blended	Credits	:	4
Credits	:	4	CIA marks	:	25
No. of lecture hours / week	:	4	Semester end exam	:	75
Total no. of lecture hours	:	60	Total marks	:	100
Year of Introduction	:	2021-22	Year of Revision	:	2021-22
% of revision:	:	100%			

Course content suggested by APSCHE	Additions	Deletions
<u>Unit - 1</u> Introduction to Data Structures , Arrays	Principles of Programming and Analysis of Algorithms	
<u>Unit - 2</u>	**STACKS, QUEUES Topics	
Linked Lists:	moved to Unit-3	
Stacks:		
Queues:		
<u>Unit - 3</u> Binary Trees:	Binary Trees Topic moved to unit- 4	
Unit-4		
Graphs:	Graphs Topic moved to unit-5	
<u>Unit-5</u> Searching and sorting:		

It is resolved and recommend the changes in the syllabus of course code: CSCT21B Course: Data Structures from the academic year 2021-22 onwards for IBSC(MPCS,MCCS,MSCS), II Semester.

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

## **Title of the Paper: Data Structures**

#### Semester: II

#### **Course Objectives**

To introduce the fundamental concept of data structures and to emphasize the importance of various data structures in developing and implementing efficient algorithms.

#### **Course Outcomes:**

COURSE OUTCOME NO	Upon successful completion of the course, student will be able to:	PROGRAM OUTCOME NO
CO1	Learn the concepts of ADT and understand analysis of algorithms	PO1, PSO1, PSO2, PSO4
CO2	Understand available Data Structures for data storage and processing.	PO1, PSO1, PSO2, PSO4
CO3	Learn stacks, queues and their applications	PO1, PSO1, PSO2, PSO4
CO4	Understand trees, graphs and implement their operations	PO1, PO7, PSO1, PSO2, PSO4
CO5	Develop ability to implement different Sorting and Search methods	PO1, PO7, PSO1, PSO2, PSO4

## **Syllabus**

## : 11Periods Introduction to Data Structures: Introduction to the Theory of Data Structures, Data Representation, Abstract Data Types, Data Types, Primitive Data Types, Data Structure and Structured Type, Atomic Type, Difference between Abstract Data Types, Data Types, and Data Structures, Refinement Stages.

**Principles of Programming and Analysis of Algorithms:** Software Engineering, Program Design, Algorithms, Different Approaches to Designing an Algorithm, Complexity, Big 'O' Notation, Algorithm Analysis, Recursion.

#### UNIT – II:

#### **11Periods**

**14Periods** 

Linked Lists: Introduction to Lists and Linked Lists, Basic Linked List Operations, Doubly Linked List, Circular Linked List, Atomic Linked List, Linked List in Arrays, Linked List versus Arrays

#### UNIT – III:

**Stacks:** Introduction to Stacks, Stack as an Abstract Data Type, Representation of Stacks through Arrays, Representation of Stacks through Linked Lists, Applications of Stacks, Stacks and Recursion

**Queues:** Introduction, Queue as an Abstract data Type, Representation of Queues, Circular Queues, Double Ended Queues- De-ques, Priority Queues, Application of Queues

#### UNIT – IV:

**Binary Trees:** Introduction to Non- Linear Data Structures, Introduction Binary Trees, Types of Trees, Basic Definition of Binary Trees, Properties of Binary Trees, Representation of Binary Trees, Operations on a Binary Search Tree, Binary Tree Traversal, Counting Number of nodes in Binary Trees, Applications of Binary Tree

#### UNIT – V:

#### **14Periods**

**10Periods** 

Searching and sorting: Sorting – An Introduction, Bubble Sort, Insertion Sort, Merge Sort, searching – An Introduction, Linear or Sequential Search, Binary Search, Indexed Sequential Search

**Graphs:** Introduction to Graphs, Terms Associated with Graphs, Sequential Representation of Graphs, Linked Representation of Graphs, Traversal of Graphs, Spanning Trees, Shortest Path, Application of Graphs.

#### **BOOKS:**

- "Data Structures using C", ISRD group Second Edition, TMH
- Data Structures through C", YashavantKanetkar, BPBPublications
- "Data Structures Using C" Balagurusamy E.TMH

## UNIT – I:

## **RECOMMENDED CO-CURRICULAR ACTIVITIES:**

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

#### A. Measurable

- 1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
- 2. Student seminars (on topics of the syllabus and related aspects (individual activity))
- 3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
- 4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

#### B. General

- 1. Group Discussion
- 2. Others

#### **RECOMMENDED CONTINUOUS ASSESSMENT METHODS:**

Some of the following suggested assessment methodologies could be adopted;

- 1. The oral and written examinations (Scheduled and surprise tests),
- 2. Closed-book and open-book tests,
- 3. Programming exercises,
- 4. Practical assignments and laboratory reports,
- 5. Observation of practical skills,
- 6. Individual and group project reports.
- 7. Efficient delivery using seminar presentations,
- 8. Viva voce interviews.
- 9. Computerized adaptive testing, literature surveys and evaluations,
- 10. Peers and self-assessment, outputs form individual and collaborative work.

Vuyyuru- 521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified MODEL Question Paper: 2021-2022

COURSE CODE: CSCT21E
R: II MAX: 75M
N –A
5 X 5 =25 M.
<b>0</b> <sub>1</sub> , L2}
0 <sub>2</sub> , L2}
O <sub>3</sub> , L5}
<b>D</b> <sub>3</sub> , L2}
r and pre order traversals
our own example. {CO <sub>5</sub> , L2}
3}
– B
5 X 10 =50 M. atomic type. {CO <sub>1</sub> , L2}
lexity. {CO1, L2}
ble linked list.{CO <sub>2</sub> , L2}
$\{CO_2, L2\}$
D <sub>3</sub> , L3}
L3}
nple.{CO4, L2}
()
a binary search tree. {CO <sub>4</sub> , L2}
a binary search tree. {CO4, L2}

Vuyyuru- 521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### **BLUE PRINT**

TITLE	E: DATA	STRUCTURES		COURSE CODE: CSCT21B
SECTI	IONS: B.	SC(MPCS / MCCS / MSCS)		SEMESTER: II
TIME	: 3 Hrs.			MAX: 75M
			SECTION-A	
	ANS	WER ANY FIVE QUESTI	IONS	5X5=25M
1.	Unit I			
2.	Unit 1			
3.	Unit 2			
4.	Unit 3			
5.	Unit 3			
6.	Unit 4			
7.	Unit 5			
8.	Unit 5			
			SECTION – B	
ANSV	VER A	LL THE QUESTIONS		5 X 10 =50 M.
9		a)Unit 1.		
		(Or)		
		b) Unit 1.		
10		a) Unit 2.		
		(Or)		
		b) Unit 2.		
11		a)Unit 3.		
		(Or)		
		b) Unit 3.		
12		a) Unit 4.		
		(Or)		
		b) Unit 4.		
13		a) Unit 5.		
		(Or)		
		b) Unit 5.		
			****	

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

## An Autonomous college within the jurisdiction of Krishna University A.P, India.

Semester II	Course Code	Course Title	Hours	Credits
BSC(MPCS/MCCS/MSCS)	CSCT21B	Data Structures Lab	30	1

COURSE OUTCOME NO	Upon successful completion of this course, students should have the knowledge and skills to:	PROGRAM OUTCOME NO
CO1	Implement stacks, queues using arrays and linked lists.	PO1, PSO1, PSO2, PSO4
CO2	Write program for conversion from infix to postfix.	PO1, PSO1, PSO2, PSO4
CO3	Implement different sorting and searching techniques.	PO 7, PSO1, PSO2, PSO4
CO4	Construct binary trees and binary search trees.	PO 1, PSO1, PSO2, PSO4
CO5	implement binary tree and Graph traversals.	PO1,PO 7, PSO1, PSO2, PSO4

#### Lab Experiments List

## Cycle - I

Week 1: Write a program to read 'N' numbers of elements into an array and also perform the following operation on an array

- Add an element at the beginning of an array
- Insert an element at given index of array
- Update a element using a values and index
- Delete an existing element

Week 2: Write Program to implement the Stack operations using an array.

Week 3: Write a program using stacks to convert a given infix expression to postfix.

Week 4: Write a program for arithmetic expression evaluation.

Week 5: Write Program to implement the Stack operations using Liked List.

Week 6: Write Program to implement the Queue operations using an array.

Week 7: Write Program to implement the Queue operations using Liked List.

Week 8: Write Program to implement circular Queue operations using an array.

### Cycle - II

Week 9: Write a program to implement de-queues.

Week 10: Write a program to implement single linked list.

Week 11: Write a program to implement double linked list.

Week 12: Write a program for Binary Search Tree Traversals.

**Week 13:** Write a program to search an item in a given list using the following Searching Algorithms

- Linear Search
- Binary Search.

Week 14: Write a program for implementation of the following Sorting Algorithms

- Bubble Sort
- Insertion Sort
- Merge sort

Week 15: Write a program for implementation of the following graph traversals.

- BFS
- DFS



A.G. & S.G. Siddhartha Degree College of Arts & Science

Vuyyuru-521165, Krishna District, Andhra Pradesh (An Autonomous institution in the jurisdiction of Krishna University, Machilipatam) NAAC "A" Grade, ISO 9001:2015 Certified Institution

## DEPARTMENT OF COMPUTER SCIENCE

Minutes of the meeting of Board of Studies in Computer Science for UG held on 07-04-2022in theDepartment of Computer Science.

Semester	:	II	Programme	:	BCOM(CA)
Course	:	E–COMMERCE & WEB DESIGNING	Course Code	:	CABT21A
Course delivery method	:	Class room / Blended	Credits	:	4
Credits	:	4	CIA marks	:	25
No. of lecture hours / week	:	4	Semester end exam	:	75
Total no. of lecture hours	:	60	Total marks	:	100
Year of Introduction	:	2021-22	Year of Revision	:	2021-22
% of revision:	:	100%			

Course content suggested by APSCHE	Additions	Deletions
<u>Unit – 1</u> Introduction,Electronic Commerce	An Overview on E-Commerce Business Models for Ecommerce	
<u>Unit - 2</u> payment System	E-Marketing &E – CRM& Electronic Payment Systems Online Marketing	
<u>Unit - 3</u> On-line Business Transactions:	Electronic Payment Systems	
<u>Unit-4</u> Introduction to HTML	Introduction to Web Designing HTML	
<u>Unit-5</u> Website Designing: Hyperlinks:	Website Designing: Hyperlinks topic moved to UNIT-4 Introduction to WIX Editor Getting Started with Wix	

It is resolved and recommend the changes in the syllabus of course code: CABT21A Course: E-COMMERCE & WEB DESIGNING from the academic year 2021-22 onwards for IBCOM(CA), II Semester.

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

## Title of the Paper: E-COMMERCE & WEB DESIGNING

Semester: II

#### **COURSE OBJECTIVES**:

The main objective of the course is to impart conceptual understanding on business transactions on worldwide web and electronic commerce & Electronic Customer Relationship Management and Web designing concepts for providing quality content on website.

#### **COURSE OUTCOMES:**

COURSE OUTCOME NO	Upon successful completion of this course, students should have the knowledge and skills to
CO1	Understand the structure of HTML its basic tags
CO2	Implement various HTML tags for web page development
CO3 Understand about implementing forms and frames in web page designing	
CO4	Gain knowledge in E- commerce and its business models
CO5	Differentiate traditional and e – marketing and also gain knowledge in E-CRM and EPS

UNIT I: An Overview on E-Commerce	(10periods)
Introduction E-Commerce	
Definition of E- Commerce and its advantages & disadvantages	
Electronic Data Interchange (EDI)	
E-Commerce transactional issues and challenges	
Difference between Commerce and E-Commerce	
Business Models for Ecommerce	
B2C -Business to consumer. B2B – Business to business C2B -	- Consumer to business. C2C - Consumer
to consumer.	
UNIT II: E-Marketing &E – CRM& Electronic Payment Systems	(10periods)
Online Marketing	(
Traditional Vs. E-Marketing	
Online Marketing	
E-Advertising	
Internet marketing	
E – CRM	
Definition of CRM and E-CRM and its Applications	
E- CRM Architectural components	
Definition & characteristics of E- SCM	
Benefits and goals of $E - SCM 2.2.5 E$ -Logistics of UP	
UNIT III: Electronic Payment Systems	(10periods)
Types of EPS	
Traditional payment system and modern payment system	
Steps for electronic payment 3.4 Payment security	
UNIT IV: Introduction to Web Designing	(12periods)
4.1 <b>HTML</b>	
.1Define HTML 4.1.2 Structure of HTML 4.1.3 Basic HT	'ML tags
4.1.4 Formatting HTML tags	C C
Lists	
Ordered List 4.2.2 Unordered List	
4.3Links	
4.3.1 Link tag 4.3.2 Image tag 4.3.3 Marquee tag 4.4 <b>Tables</b>	
4.4.1 Table Creation 4.4.2 Attributes of Table	

#### 4.5forms& Frames

- 4.5.1 Forms creation 4.5.2 Form tag 4.5.3 Input fields of form
- 4.5.4 Frame Creation 4.5.5 Frameset tag 4.5.6 Frame tag

#### **UNIT V: Introduction to WIX Editor**

Getting Started with Wix Adding and Editing Text Adding a Site Title Changing Your Text Font Creating a Clickable URL Adding Language Fonts Adding Elements to Your Site Arranging the Content on Your Site's Pages About the Header About the Footer

## Adding an Image to Your Page Background

Uploading Your Own Background Image Adding a Video to Your Page Background Uploading Your Own Video Page Background Uploading Your Own Images Adding a Logo to Your Site Adding a Link to an Image

#### **Gallery and Button**

Adding a Gallery Cropping and Editing Gallery Images Adding and Setting Up an Icon Button Adding a Link to a Button

#### Video

Adding a Video from YouTube Retrieving a YouTube URL

#### Menu

Adding a Site Menu Customizing Your Menu Design Adding and Deleting a Menu Folder Reordering Menu Items Changing the Direction of Menu Items

#### **Text Book:**

- 1. Uttam Kumar Roy, Web Technologies, Oxford University Press.
- 2. E-Commerce- A Managerial Perspective- P. T. Joseph, Prentice- Hall of India, New Delhi, 2005.

#### **References:**

1. Kogent Learning Solutions Inc.(Author), "Black Book HTML 5.0", dramatic. 2.Daniel Amor, E-Business R(Evolution), Pearson Edude, New Delhi, 2005.

#### Weblink: https://support.wix.com/en/the-wix-editor/editor-basics

#### (18periods)

Vuyyuru- 521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

> Title: E-Commerce Web Designing Model Paper

CLASS: B.Com (Computer Applications) Semester: II	Course Code: CABT21A	Max. Marks: 75M Time: 3 Hours
Section	<u>1-A</u>	
ANSWER <u>ANY FIVE</u> QUESTIONS 1. Explain the E-Commerce (CO1, L2)		5X5M=25M
2. Compare Traditional marketing and E-Mar	keting. (CO2, L2)	
3. Define Networks and its types? (CO3, L1)		
4. Explain Link tags in HTML (CO4, L2)		
5. Explain the steps to add a link to a button (	CO5, L1)	
6. Compare Commerce and E-Commerce. (Co	D1, L2)	
7. Explain Benefits and goals of $E - SCM$ . (C	O2, L2)	
8. Demonstrate concept of formatting Tags (C	CO4, L2)	
	Section-B	
ANSWER THE FOLLOWING QUESTIONS 9. (A) Explain EDI. (CO1, L2)	5	5X10M=50M
(OR) (B) Classify Business Models for Ecomme	erce. (CO1, L2)	
10. (A) Illustrate E- CRM Architectural compo	onents. (CO2, L2)	
(OR) (B) Explain Electronic Payment Systems.	(CO2, L2)	
11. (A) Define Structure of HTML with exam	ples (CO3, L1)	
(OR) (P) What are different types Natural Ten	alarian9 (CO2 I 1)	
(b) what are different types Network Top	ologies? (CO3, L1)	
12. (A) Demonstrate the concept of Table creat	tion with apply all Attributes. (CO	D4, L2)
(B) Define forms in html and creation of	form with all input types? (CO4,	L1)
13 (A) Explain the stars to add elements to $y_{0}$	our site $(CO5 I 1)$	
(OR)	Jui Site. (COJ,L1)	
(B) How to add images and logo to your sit	te (CO5, L1)	
	****	

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

Computer Science	САРТЭТА	2021 22	P. Com (Computers Applications)
Computer Science	CADIZIA	2021-22	<b>b.</b> Com (Computers Applications)

Semester - II

#### WEB DESIGNING LAB

Credits: 1

#### **COURSE OBJECTIVES:**

The purpose of this course is to introduce to students to the field of creation web pages using HTML language. The students will be able to enhance their analyzing and help to creation for Web Site Design

#### **COURSE OUTCOMES:**

COURSE OUTCOME NO	on successful completion of this course, students should have the knowledge and skills to
	Implement HTML tags.
CO1	
CO2	plementing lists and tables in web pages.
CO3	plementing frames in web pages.
CO4	plementing frames in web pages.
CO5	eation of CSS in a web page.

Week 1: Write a HTML program to print text in bold and italic font.

- Week 2: Write a HTML program to print Heading tags.
- Week 3: Write a HTML program using Text formatting tags
- Week 4: Write a HTML program to implement unordered lists. Write a HTML program to implement order lists.

Week 5: Write a html file which display 3 images at LEFT, RIGHT and CENTER respectively in the browser.

- Week 6: Create a HTML file which contains hyperlinks.
- Week 7: Write a HTML program to create a table
- Week 8: Write a HTML program to create a table using Row Span and Cols pan.
- Week 9: Write a HTML program to Create a simple form
- Week 10: Create a Registration form that interacts with the user. Collect login name, password, date of birth, gender, address, qualification.

Week 11: Create a HTML page using frameset tag.

#### Developing Websites using WIX: https://www.wix.com/blog/2020/05/how-to-design-a-website/

- Week 12: An online store to sell your products.
- Week 13: A photography website to display and sell prints.
- Week 14:A fitness website to book new clients.
- Week 15: A restaurant website to help with online orders, delivery and payment.

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

## Title of the Paper: Information Technology

#### Semester: II

Course Code	CABT21A	Course Delivery Method	Class Room / Blended Mode – Both
Credits	4	CIA Marks	25
No. of Lecture Hours / Week	4	Semester End Exam Marks	75
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

#### **COURSE OBJECTIVES**:

It provides to learn computer basics and basic principles of using Windows operation system and be able to access the Internet, data communication, Software, hardware and various new technologies in information technology.

## **Course Outcomes:**

COURSE OUTCOME	Upon successful completion of this course students should have the
NO	knowledge and skills to
CO1	Understand fundamental concepts of a computer and its basic components
CO2	Understand basic functioning of an operating system and customizing Windows Desktop
CO3	Analyze type of soft ware's and programming languages
CO4	Have knowledge in basic Network and Data Communication Concepts
CO5	Understand the need of data mining and get familiarize with basics of new concepts like KDD, OLAP

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)

Semester II	<b>Course Code</b>	Course Title	Credits	Periods
B.Com.(E-Commerce Computer)	CABT21A	Information Technology	4	75
UNIT-I: INTRODUCTION:			13Pe	riods
Introduction to computers				
Generations of computers				
An overview of computer	system - Types	of computers		
Input & Output Devices.				
Hardware: Basic compone	ents of a comp	uter system- Control unit-	ALU- Inpu	t/outputfunc
Memory – RAM – ROM –	EPROM - PR	OM and Other types of mer	nory.	
<b>UNIT-II: OPERATING SYSTE</b>	CM (OS):			12Perio
Meaning - Definition & Fu	inctions.			
Types of OS - Booting pro	cess			
DOS – Commands (interna	al & external) -	Wild card characters		
Windows: Using the Start	Menu –Contro	l Panel – Using multiple		
Windows – Customizin	g the Desktop	– Windows accessories (Pr	referably lat	estversion of
windows or Linux Ubu	ntu).			
Unit-III: SOFTWARE:				15Period
System software and application	on software.			
Operating system	windows OS,			
Mobile device operating s	ystem and note	book operating systems		
Application software Types of	f personal appli	cation software		
Spread sheet-data ma	anagement			
Word processing				
Desktop publishing				
Graphics, CAD, CA	M, CIM			
Programming Languages				
Assembly language				
Procedural language	, non-procedura	al language, natural program	nming langu	lage.
Unartaxt mark up 1	anguage mode	ling language object origin	tad program	

#### **Unit-IV: DATA COMMUNICATION:**

**20 Periods** 

Telecommunication and Networks Communication media& channel cable media

Broad cast media channels twisted pair Coaxial cable, fibers optical cable, micro wave, satellite, radio, cellular radio, Infrared global positioning system. Introduction, Analog and Digital signals, modulation need of modulations, modems. Telecommunication System communication processors: Modem Multiplexers Front –end-processor. Networks LAN, WAN, VAN, virtual private network (VPN). Internet, intranet and Extranets The evolution of the internet, service provided by the internet, World Wide Web.

#### **Unit-V: NEW TECHNOLOGIES:**

New technologies in Information Technology: Introduction to hyper media, artificial intelligence and business intelligence, knowledgediscovery in database (KDD) Data warehouse and data marts. Data mining and OLAP.

#### **Student Activity:**

Students have to submit assignments and give seminars on various topics allotted to them. **Total of 5 Hrs is allotted for student seminars**. Student activity also includes gathering of information related to latest technologies in computers.

#### Library Activity:

Students will visit library in their allotted time and will refer various text books to gather information for their assignments.

#### **TEXT/ REFERENCE BOOKS:**

- 1. B.E.V.L.Naidu, V.V.. Devi Prasad Konti, Ganti Naga Srikanth, Himalaya publishing House.
- 2. Introduction to Computers: Peter Norton, McGraw Hill

@@@@@

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P., India.

#### (With Effect from Academic Year 2021-22)

**MODEL Question Paper:** 

PAPER TITLE: INFORMATION TECHNOLOGY	COURSE CODE: CABT21A
CLASS: B.Com (E-Commerce-Computers)	
SEMESTER: II	
TIME: 3 Hrs.	MAX: 75M

#### <u>SECTION – A</u>

#### Answer any five of the following

- 1. Illustrate the characteristics of RAM and ROM. (CO1, L2)
- 2. Define Operating system. What are different types of OS? (CO2, L1)
- 3. Demonstrate application software and system software. (CO3, L2)
- 4. What are the different types of networks? (CO4, L1)
- 5. Explain the steps involved in the process of KDD. (CO5, L2)
- 6. Explain about input devices. (CO1, L2)
- 7. What are analog and digital signals? (CO4, L1)
- 8. Explain Data warehouse. (CO5, L2)

### **SECTION –B**

#### Answer the following

5x10=50M

5X5 = 25M

- 9. a) Explain the block diagram of computer. (CO1, L2) **OR** 
  - b) Explain the generations of computers. (CO1, L2)
- 10. a) What are the functions of operating system? (CO2, L1)

#### OR

- b) What are DOS Internal and External commands? (CO2, L1)
- 11. a) Explain the characteristics of various types of programming languages. Give examples. (CO3, L2)OR
  - b) Summarize the concepts on CAD, CAM and CIM. (CO3, L2)
- 12. a) Define the various types of Communication media and channels. (CO4, L1)
  OR
  b) What are the Advantages and Disadvantages of Internet? (CO4, L1)
- 13. a) Demonstrate On-Line Analytical process (OLAP). (CO5, L2) OR
- b) Explain about Artificial Intelligence and Business Intelligence. (CO5, L2) @@@@@

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

## Title of the Paper: **COMPUTER APPLICATIONS**

Semester: II

Course Code	CABT22A	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	25
No. of Lecture Hours / Week	4	Semester End Exam Marks	75
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

#### **COURSE OBJECTIVES:**

It provides to learn computer basics and basic principles of using Windows operation system and be able to access the Ms-Office, Power Point, Excel and various new technologies in information technology.

COURSE OUTCOME	Upon successful completion of this course, students should have the
NO	knowledge and skills to
CO1	Understand fundamental concepts of a computer and its basic components
CO2	Understand basic functioning of an Ms-Office and MS-Word Window Components Windows Desktop
CO3	Analyze type of soft ware's and programming languages
CO4	Have knowledge in MS-Excel and MS Access
CO5	Understand the need of Finding, Sorting and Displaying Data and get familiarize

#### **Course Outcomes:**

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-'22)

(With I	Effect from A	Academic	Year 202	1-*22)

	COMDU	TED SCIENCE	САРТЭЭА	2021 (22	B.Co	m(E-Commerce-	
	COMPU	IENSCIENCE	CADI 22A	2021- 22	comp	outers)	
SEMES	STER – II	PAPER – II	Max. Marks 75	Pass Mar	:ks 30	Total Hrs: 60	
Syllabu	IS	COMPUT	ER APPLICATIO	NS NO. Of H	Irs: 4	Credits: 3	
Unit-I:	<b>MS-Word</b>					10 Hrs	
Feature	s of MS-W	ord – MS-Word W	indow Components	- Creating, Ed	iting, F	Formatting and Printi	ng of
Docum	ents – Head	lers and Footers – I	nsert/Draw Tables,	Table Auto for	mat – I	Page Borders and Sh	ading
- Insert	ing Symbol	ls, Shapes, Word A	rt, Page Numbers, H	Equations – Spe	elling a	and Grammar – Thes	aurus –
Mail M	erge						
Unit-II	: MS-Powe	erPoint				10 Hrs	
Feature	s of Powerl	Point – Creating a I	Blank Presentation -	Creating a Pre	sentati	on using a Template	-
Insertin	g and Dele	ting Slides in a Pre	sentation – Adding	Clip Art/Pictur	es - In	serting Other Object	s,
Audio,	Video - Re	sizing and scaling of	of an Object – Slide	Transition – C	ustom	Animation	
Unit-II	I: MS-Exc	el				10Hrs	
Overvie	ew of Excel	features – Creating	g a new worksheet,	Selecting cells,	Enteri	ing and editing Text,	
Number	rs, Formula	e, Referencing cell	s – Inserting Rows/	Columns – Cha	nging	column widths and r	OW
heights,	auto forma	at, changing font si	zes, colors, shading	and attributes -	– Data	Sorting and Filters –	-
Functio	ns – Functi	ons requiring Addi	ns, Functions by cat	egory Creating	differe	ent types of Charts	
Unit-IV	: MS Acce				12H	Irs	
Creating	g a Simple	Database and Tabl	es: Features of Ms-A	Access, Creatin	ig a Da	tabase, Parts of Acco	ess.
Tables:	table creati	on using design vie	ew, table wizard, da	ta sheet view, i	mport	table, link table. For	ms:
The For	m Wizard,	design view, colur	nnar, tabular, data s	heet, chart wiza	ard.	1011	
Unit- V	: Finding,	Sorting and Displ	aying Data:		0	12Hrs	
Queries	and Dynas	ts, Creating and us	ing select queries, R	eturning to the	Query	Design, Multi-level	l sorts,
Finding	incomplete	e matches, showing	g All records after a $\mathbf{D}$	Query, saving	queries	s - Crosstab Queries.	
Printing	g Reports: F	form and Database	Printing				
Referen	nce Books:						
1.Ron N	/ansfield, V	Working in Microso	oft Office, Tata McO	Graw Hill(2008	)		
2.Ed Bo	ott, Woody	Leonhard, Using N	licrosoft Office 200	7, Pearson Edu	cation(	(2007)	
3. Sanja	iy Saxsena,	Microsoft Office,	4.Microsoft Office,	BPB Publicatio	ons		

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22)

	COMPUTER SCIENCE	CABT22A	2021-'22	B.Com(e-comm computers)	nerce-
	SEMESTER – II	PAPER – III		Max. Ma	nrks 75
Model Section	<u> Paper</u> : COMPUTER APPL] <u> -A</u>	ICATIONS NO of	Hours: 4 N	lo Of Credits: 3	Pass Marks 30
Answe	r any <u>FIVE Q</u> uestions. Each q	uestion carries FIV	VE Marks	5x5=25M	
1.	UNIT -1		5M		
2.	UNIT -1		5M		
3.	UNIT -2		5M		
4.	UNIT -2		5M		
5.	UNIT -3		5M		
6.	UNIT -3		5M		
7.	UNIT -4		5M		
8.	UNIT -5		5M		
		Section-	<u>B</u>		
Answe	r All Questions. Each question	ı carries TEN Mark	ĊS	5X10=50M	

9.a) UNIT -1		M
()	Or)	
b). UNIT -1		М
10. a) UNIT -2		M
()	Or)	
b). UNIT -2		М
11. a) UNIT -3	101	М
()	Or)	
b). UNIT -3		М
12. a) UNIT -4	10M	1
((	Or)	
b). UNIT -4		М
13. a) UNIT -5		М
()	Or)	
b). UNIT -5		М

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### Title of the Paper: DIGITAL MARKETING

Course Code	SDCCSC02	Course Delivery Method	Class Room / Blended Mode – Both
Credits	2	CIA Marks	10
No. of Lecture Hours / Week	2	Semester End Exam Marks	40
Total Number of Lecture Hours	30	Total Marks	50
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

#### **Objective:**

The aim of the Digital Marketing Course is to provide students with the knowledge about business advantages of the digital marketing and its importance for marketing success. The application of the gained knowledge, skills and competences will help students in forming digital marketing plan in order to manage a digital marketing performance efficiently.

#### **Course Outcomes:**

COURSE OUTCOME NO	on successful completion of this course, students should have the knowledge and skills to
CO1	derstand fundamental concepts of Digital Marketing and Channels (PO1, PO7, PSO1, PSO4)
CO2	derstand how to optimize a Web site and SEO optimization D1, PO7, PSO1, PSO4)
CO3	nderstand Social Media Plan for measuring effects of digital marketing D1, PO7, PSO1, PSO4)

**5** Periods

#### **UNIT-I: INTRODUCTION:**

What is Digital Marketing?
Difference between Traditional Marketing and Digital Marketing?
Benefits of Digital Marketing?
Latest Digital Marketing Trends
Digital Marketing Platforms
Digital Marketing Strategies for Websites
Career Opportunities in Digital Marketing
Difference Between Digital Marketing , Online Marketing and Internet Marketing
Functions and Types of Digital marketing
What is Marketing and how to build Online Marketing Plan
Digital Marketing Process
How to increase Visibility and People Engagement
Traffic Generation Techniques , Leads and How to gauge Performance Evaluation
Digital Marketing Techniques for Product Marketing and Service Marketing

#### **UNIT-II: SEO Training (Search Engine Optimization)**

#### 12Periods

Introduction to SEO What are Search engines and How Search Engines Work Search Engine Algorithms and Latest Updates Keyword Research Google Trends Purpose of website analytics How to choose Website Analysis Tools Installing Google Analytics in website **Competitive Analysis Domain Registration and Hosting Plans** Keyword Placement SEO Content Writing and Rewriting Google Webmaster Tools Sitemap Creation Robots.txt File Creation Google Updates and their effects in website Rankings. On page Optimization strategies

#### **Unit-III:SEM Training ( Search Engine Marketing )**

**13Periods** Introduction to Free and Paid Marketing What is Search Engine Marketing? What is Link Building Advantages and Disadvantages of Link Building Difference Between Search engines and Directories **Directory Submission Techniques Classified Postings** Press Release Postings **Article Posting Techniques** Forum Postings Advantages and Disadvantages of Forums How and when to Participate in Groups Trade Fairs and Trade lead Postings Participating in Ouestions and Answers sites What are Do Follow and No Follow Links SMO Training (Social Media Optimization) Introduction to social media optimization and Social Media Marketing **Twitter Marketing** Facebook Marketing, Facebook for Business, Advantages and Disadvantages LinkedIn Account creation and LinkedIn Marketing Social Bookmarking Sites, Advantages and Disadvantages of Submitting your website toSocial bookmarking Sites

#### **TEXT/ REFERENCE BOOKS:**

- 1. The Beginner's Guide to Digital Marketing (2015). Digital Marketer. Pulizzi, J. (2014) Epic Content Marketing, Mcgraw Hill Education.
- 2. Ryan, D. (2014). Understanding Digital Marketing: Marketing Strategies for Engaging the Digital Generation, Kogan Page Limited.
- 3. Chaffey, D., e-Marketing Excellence: Planning and Optimizing Your Digital Marketing, Burlington: Elsevier.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)

**MODEL Question Paper:** 

#### PAPER TITLE: Digital Marketing SEMESTER: II TIME: 2 Hrs.

## COURSE CODE: SDCCSC02

#### **MAX: 40M**

## <u>SECTION – A</u>

(Total: 4x7=28 Marks)

Answer any four questions. Each answer carries 7 marks

- 1. 2.
- 3.
- 4.
- 5.
- 6.

<u>SECTION – B</u>

#### (Total: $6x^2 = 12$ Marks)

Answer any Six questions. Each answer carries 2 marks

- 7.
- 8.
- 9.
- 10.
- 11.
- 12
- 13
- 14
- 15
- 16

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

## Title of the Paper: OBJECT ORIENTATED PROGRAMMING THROUGH JAVA Semester: IV

Course Code	CSCT01	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** To introduce the fundamental concepts of Object-Oriented programming and to design & implement object oriented programming concepts in Java.

#### **Course Outcomes:**

CO <sub>1</sub>	Understand the benefits of a well-structured program
CO2	Understand different computer programming paradigms
CO3	Understand underlying principles of Object-Oriented Programming in Java
CO4	Develop problem-solving and programming skills using OOP concepts
CO5	Develop the ability to solve real-world problems through software development inhigh-level programming language like Java

#### **Syllabus**

UNIT – I: Introduction to Java: Features of Java, The Java virtual Machine, Parts of Java

Naming Conventions and Data Types: Naming Conventions in Java, Data Types in Java, Literals

Operators in Java: Operators, Priority of Operators

**Control Statements in Java:** if... else Statement, do... while Statement, while Loop, for Loop, switch Statement, break Statement, continue Statement, return Statement

**Input and Output:** Accepting Input from the Keyboard, Reading Input with Java.util.Scanner Class, Displaying Output with System.out.printf(), Displaying Formatted Output with String. Format ()

**Arrays:** Types of Arrays, Three Dimensional Arrays (3D array), arrayname.length, Command Line Arguments

#### $\mathbf{UNIT} - \mathbf{II}$

**Strings:** Creating Strings, String Class Methods, String Comparison, Immutability of Strings **Introduction to OOPs:** Problems in Procedure Oriented Approach, Features of Object-Oriented Programming System (OOPS)

**Classes and Objects:** Object Creation, Initializing the Instance Variables, Access Specifiers, Constructors

**Methods in Java:** Method Header or Method Prototype, Method Body, Understanding Methods, Static Methods, Static Block, The keyword 'this', Instance Methods, Passing Primitive Data Types to Methods, Passing Objects to Methods, Passing Arrays to Methods, Recursion, Factory Methods

**Inheritance:** Inheritance, The keyword 'super', The Protected Specifier, Types of Inheritance

#### UNIT – III

**Polymorphism:** Polymorphism with Variables, Polymorphism using Methods, Polymorphism with Static Methods, Polymorphism with Private Methods, Polymorphism with Final Methods, final Class

**Type Casting:** Types of Data Types, Casting Primitive Data Types, Casting Referenced Data Types, the Object Class

Abstract Classes: Abstract Method and Abstract Class

Interfaces: Interface, Multiple Inheritance using Interfaces

**Packages:** Package, Different Types of Packages, The JAR Files, Interfaces in a Package, Creating Sub Package in a Package, Access Specifiers in Java, Creating API Document

**Exception Handling:** Errors in Java Program, Exceptions, throws Clause, throw Clause, Types of Exceptions, Re – throwing an Exception

#### UNIT - IV

**Streams:** Stream, Creating a File using File Output Stream, Reading Data from a File uingFileInputStream, Creating a File using File Writer, Reading a File using File Reader, Counting Number of Characters in a File, File Copy, File Class

**Threads:** Single Tasking, Multi Tasking, Uses of Threads, Creating a Thread and Running it, Terminating the Thread, Single Tasking Using a Thread, Multi Tasking Using Threads, Multiple Threads Acting on Single Object, Thread Class Methods, Deadlock of Threads, Thread Communication, Thread Priorities, thread Group, , Applications of Threads, Thread Life Cycle

#### $\mathbf{UNIT} - \mathbf{V}$

**Applets:** Creating an Applet, Uses of Applets, <APPLET> tag, A Simple Applet, An Applet with Swing Components, Animation in Applets, A Simple Game with an Applet, Applet Parameters

**Java Database Connectivity:** Database Servers, Database Clients, JDBC (Java Database Connectivity), Working with Oracle Database, Working with MySQL Database, Stages in a JDBC Program, Registering the Driver, Connecting to a Database, Preparing SQL Statements, Using jdbc–odbc Bridge Driver to Connect to Oracle Database, Retrieving Data from MySQL Database, Retrieving Data from MS Access Database, Stored Procedures and Callable Statements, Types of Result Sets

#### **BOOKS:**

- 1. Core Java: An Integrated Approach, Authored by Dr. R. Nageswara Rao &Kogent Learning Solutions Inc.
- 2. E.Balaguruswamy, Programming with JAVA, A primer, 3e, TATA McGraw-Hill Company.
- John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series, TMH.
- 4. Deitel& Deitel. Java TM: How to Program, PHI (2007)

AG & SG SIDDHARTHA C An Autonomous college w (With 1	COLLEGE OF ART vithin the jurisdicti Effect from Acader	<b>IS AND SCII</b> on of Krishna nic Year 2021	ENCES - VUYYURU. a University A.P, India. 1-22)
COMPUTER SCIENCE	CSCT01	2021-'22	B.Sc.(MPCs,MCCs)
SEMESTER – IV	PAPER – IV		Max. Marks 70
Model Paper: 'OBJECT ORIENTA	ATED PROGRAM	MING THRO	DUGH JAVA'
NO of Hours: 4	No Of Cre	dits: 3	Pass Marks 28
	Section	on-A	
Answer any <u>FOUR Questions</u> . Each	question carries FI	VE Marks	4x5=20M
1. UNIT -1		5M	
2. UNIT -1		5M	
3. UNIT -2		5M	
4. UNIT -3		5M	
5. UNIT -4		5M	

6. UNIT -5\_\_\_\_\_ 5M

## Section-B

Answer any <u>FIVE</u> Questions. Each question carries TEN Man	rks	5X10=50M
7. UNIT -1	10 <b>M</b>	
8. UNIT -2	10M	
9. UNIT -2	10M	
10. UNIT -3	10M	
11. UNIT -3	10M	
12. UNIT -4	10 <b>M</b>	
13. UNIT -4	10M	
14. UNIT -5	10M	

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22)

COMPUTER SCIENCE	CSCT01	2021-'22	B.Sc.(MPCs,MCCs)
		16 1 50	D 1( 1 00

SEMESTER – IV PAPER –IV Max. Marks 70 Pass Marks 28 Guidelines for paper setting 'OBJECT ORIENTATED PROGRAMMING THROUGH JAVA

	Unit wise weight age of Mark	<u>(S</u>
	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	1
Unit-2	1	2
Unit-3	1	2
Unit-4	1	2
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

#### (With Effect from Academic Year 2021-22)

COMPUTER SCIENCE	CSCT01P	2021-'22	B.Sc.(MPC	CS,MCCs)
SEMESTER – IV	PAPER -	- 1V	Max. Marks	s 50
Lab List: OBJECT ORIEN	TATED PROGRA	MMING TH	ROUGH JAV	VA
No. of Hours per week: 2	External: 40	Inte	ernal: 10	Credits: 1
<b>1.</b> Write a program to read	Student Name, R	egd.No, Marks	s [5] and calcu	ulate Total,

Percentage, and Result. Display all the details of students

- 2. Write a program to perform the following String Operations
  - a. Read a string
  - b. Find out whether there is a given substring or not
  - c. Compare existing string by another string and display status
  - d. Replace existing string character with another character
  - e. Count number of works in a string
- 3. Java program to implements Addition and Multiplication of two N X N matrices.
- 4. Java program to demonstrate the use of Constructor.
- 5. Calculate area of the following shapes using method overloading.
  - a. Triangle
  - b. Rectangle
  - c. Circle
  - d. Square
- 6. Implement inheritance between Person (Aadhar, Surname, Name, DOB, and Age) and Student (Admission Number, College, Course, Year)classes where ReadData(), Display Data() are overriding methods.
- 7. Java program for implementing Interfaces
- 8. Java program on Multiple Inheritance.
- 9. Java program for to display Serial Number from 1 to N by creating two Threads
- **10.** Java program to demonstrate the following exception handlings
  - a. Divided by Zero
  - b. Array Index Out of Bound
  - c. File Not Found
  - d. Arithmetic Exception
  - e. User Defined Exception

- Create an Applet to display different shapes such as Circle, Oval, Rectangle, Square and Triangle.
- 12. Write a program to create *Book (ISBN,Title, Author, Price, Pages, Publisher*)structure and store book details in a file and perform the following operations
  - a. Add book details
  - b. Search a book details for a given ISBN and display book details, if available
  - c. Update a book details using ISBN
  - d. Delete book details for a given ISBN and display list of remaining Books

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous ISO 9001 – 2015 Certified

## **Title of the Paper: OPERATING SYSTEM**

#### Semester: IV

Course Code	CSCT41C	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** This course aims to introduce the structure and organization of a file system. It emphasizes various functions of an operating system like memory management, process management, device management, etc.

## .Course Outcomes:

CO1	Know Computer system resources and the role of operating system in resourcemanagement with algorithms
CO2	Understand Operating System Architectural design and its services
CO3	Gain knowledge of various types of operating systems including Unix and Android
CO4	Understand various process management concepts including scheduling, synchronization, and deadlocks.
CO5	Have a basic knowledge about multithreading.
CO6	Comprehend different approaches for memory management.

#### **SYLLABUS**

**UNIT- I what is Operating System?** History and Evolution of OS, Basic OS functions, Resource Abstraction, Types of Operating Systems– Multiprogramming Systems, Batch Systems, Time Sharing Systems; Operating Systems for Personal Computers, Workstations and Hand-held Devices, Process Control & Real time Systems.

**UNIT- II Processor and User Modes**, Kernels, System Calls and System Programs, System View of the Process and Resources, Process Abstraction, Process Hierarchy, Threads, Threading Issues, Thread Libraries; Process Scheduling, Non-Preemptive and Preemptive Scheduling Algorithms.

**UNIT III Process Management**: Deadlock, Deadlock Characterization, Necessary and Sufficient Conditions for Deadlock, Deadlock Handling Approaches: Deadlock Prevention, Deadlock Avoidance and Deadlock Detection and Recovery. Concurrent and Dependent Processes, Critical Section, Semaphores, Methods for Inter- process Communication; Process Synchronization, Classical Process Synchronization Problems: Producer-Consumer, Reader-Writer.

**UNIT IV Memory Management:** Physical and Virtual Address Space; Memory Allocation Strategies– Fixed and -Variable Partitions, Paging, Segmentation, Virtual Memory.

**UNIT V File and I/O Management,** OS security : Directory Structure, File Operations, File Allocation Methods, Device Management, Pipes, Buffer, Shared Memory, Security Policy Mechanism, Protection, Authentication and Internal Access Authorization Introduction to Android Operating System, Android Development Framework, Android Application Architecture, Android Process Management and File System, Small Application Development using Android Development Framework.

#### **REFERENCE BOOKS:**

- Operating System Principles by Abraham Silberschatz, Peter Baer Galvin and GregGagne (7<sup>th</sup>Edition) Wiley India Edition.
- 2. Operating Systems: Internals and Design Principles by Stallings (Pearson)
- 3. Operating Systems by J. Archer Harris (Author), Jyoti Singh (Author) (TMH)
- 4. Online Resources for UNIT V

COMI UTER SCIENCE	CSCT41C	2021-'22	B.Sc.(MPCs,MC	Cs)
SEMESTER – IV	PAPER – V		Max. Marks	70
<u>lodel Paper</u> : 'OPERATING S	YSTEM			
NO of Hours: 4	No Of Credit	as: 3	Pass Marks	28
	<u>Secti</u>	on-A		
nswer any <u>FOUR Q</u> uestions. E	Each question car	ries FIVE Ma	rks 4x	x5=2(
1. UNIT -1			5M	
1. UNIT -1 2. UNIT -1			5M 5M	
1. UNIT -1 2. UNIT -1 3. UNIT -2			5M 5M 5M	
<ol> <li>UNIT -1</li> <li>UNIT -1</li> <li>UNIT -2</li> <li>UNIT -3</li> </ol>			5M 5M 5M 5M	
<ol> <li>UNIT -1</li> <li>UNIT -1</li> <li>UNIT -2</li> <li>UNIT -3</li> <li>UNIT -4</li> </ol>		······	5M 5M 5M 5M 5M	

# Section-B

Answer any <u>FIVE</u> Questions. Each question carries TEN Marks 5X10=50M

10M
10M

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
An Autonomous college within the jurisdiction of Krishna University A.P, India.
(With Effect from Academic Year 2021-22)

COMPUTER SCIENCE	CSCT41C	2021-'22	B.Sc.(MPCs,MCCs)	
SEMESTER – IV PAP	PER –V Max. Marks 70		Pass Marks 28	ļ.
Guidelines fo	r paper setting 'Ol	PERATING S	YSTEM'	
<u>I</u>	Unit wise weight a	<u>ge of Marks</u>		
Section-A		Section-B		
	(Short answer questions)		(essay questions	
Unit-1	2		1	
Unit-2	1		2	
Unit-3	1		2	
Unit-4	1		2	
Unit-5	1		1	
	COMPUTER SCIENCE SEMESTER – IV PAF Guidelines fo Unit-1 Unit-2 Unit-3 Unit-4 Unit-5	COMPUTER SCIENCECSCT41CSEMESTER – IVPAPER –VMax. Guidelines for paper setting 'OI Unit wise weight aUnit wise weight aSection (Short answer Unit-1Unit-12Unit-21Unit-31Unit-41Unit-51	COMPUTER SCIENCECSCT41C2021-'22SEMESTER – IVPAPER –VMax. Marks 70Guidelines for paper setting 'OPERATING S' Unit wise weight age of MarksUnit wise weight age of MarksSection-A (Short answer questions)Unit-12Unit-21Unit-31Unit-41Unit-51	COMPUTER SCIENCECSCT41C2021-'22B.Sc.(MPCs,MCCs)SEMESTER – IV PAPER –VMax. Marks 70Pass Marks 28Guidelines for paper setting 'OPERATING SYSTEM'Unit wise weight age of MarksSection-ASection-ASection-ASection-B(Short answer questions)(essay questions)Unit-121Unit-212Unit-312Unit-412Unit-511

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

COMPUTER SCIENCE	CSCT41C	2021-'22	B.Sc.(MPCS,MCCs)
SEMESTER – IV	PAPER – V	Μ	ax. Marks 50

#### (With Effect from Academic Year 2021-22)

#### Lab List: OPERATING SYSTEM LAB USING C/JAVA

No. of Hours per week: 2	External: 40	Internal: 10	Credits: 1
--------------------------	--------------	--------------	------------

- 1. Write a program to implement Round Robin CPU Scheduling algorithm
- 2. Simulate SJF CPU Scheduling algorithm
- 3. Write a program the FCFS CPU Scheduling algorithm
- 4. Write a program to Priority CPU Scheduling algorithm
- 5. Simulate Sequential file allocation strategies
- 6. Simulate Indexed file allocation strategies
- 7. Simulate Linked file allocation strategies
- 8. Simulate MVT and MFT memory management techniques
- 9. Simulate Single level directory File organization techniques
- 10. Simulate Two level File organization techniques
- 11. Simulate Hierarchical File organization techniques
- 12. Write a program for Bankers Algorithm for Dead Lock Avoidance
- 13. Implement Bankers Algorithm Dead Lock Prevention.
- 14. Simulate all Page replacement algorithms.
  - a) FIFO
  - b) LRU
  - c) LFU
- 15. Simulate Paging Techniques of memory management

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

## Title of the Paper: Database Management System

#### Semester: IV

Course Code	CCSC401G	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** The objective of the course is to introduce the design and development of databases with special emphasis on relational databases.

#### **Course Outcomes:**

CO <sub>1</sub>	Able to have knowledge about database, Traditional File System.
CO2	Be able to Design a database using Relation models and Data Modeling
CO3	Store, retrieve data in database using Integrity constraints and Normal Forms.
CO4	Be able to implement various SQL queries
CO5	Be able to implement various Procedural SQL queries and
#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22)

COMPUTER SCIENCE	CCSC402G	2021-'22	B.Com.(CA)
SEMESTER – IV	PAPE	R – IV	Max. Marks 70

#### Syllabus: 'Database Management System

#### **UNIT-I** Overview of Database Management System

Introduction, Data and Information, Database, Database Management System, Objectives of DBMS, Evolution of Database Management System, Classification of Database Management System.

#### **UNIT-2: File-Based System**

File Based System. Drawbacks of File-Based System, DBMS Approach, Advantage of DBMS, Data Models, Components of Database System, Database Architecture, DBMS Vendors and their products.

#### **UNIT-III: Entity-Relationship Model:**

Introduction, The Building Blocks of an Entity-Relationship, Classification of Entity Set, Attribute Classification, Relationship Degree, Relationship Classification, Generalization and Specialization, Aggregation and Composition, CODD's Rules, Relational Data Model, Concept of Relational Integrity.

#### **UNIT-IV: Structured Query Language**

Introduction, History of SQL Standards, Commands in SQL, Data types in SQL, Data Definition Language (DDL), Selection Operation Projection Operation, Aggregate Functions, Data Manipulation Language, Table Modification, Table Truncation, Imposition of Constraints, Set Operations.

#### UNIT-V: **PL/SQL**:

Introduction, Structure of PL/SQL,PL/SQL Language Elements, Data Types, Control Structure, Steps to Create a PL/SQL Program, Iterative Control Cursors, Steps to Create a Cursor, Procedure, Functions, Packages, Exceptions Handling, Database Triggers, Types of triggers.

#### • <u>References:</u>

- Paneer selvam: Database Management system, PHI.
- David Kuklinski, Osborne, Data management system McGraw Hill Publication.
- Shgirley Neal And Kenneth LC Trunik Database management system in Business-PHI.
- Godeon C. EVEREST, Database Management-McGraw Hill Book Company.
- MARTIN, Database Management-Prentice Hall of India, New Delhi.
- Bipin C.Desai, `An Introduction to Database System`, Galgotia Publications
- Navathe, Database Management System.

COMPUTER SCIENCE	CCSC401G	2021-'22	B.Com.(C.A.)
EMESTER – IV PA	APER – IV		Max. Marks 70
<u>del Paper</u>	DATA BASE MAN	AGEMENT	<b>F SYSTEMS</b>
of Hours: 5	No Of Credits:	3	Pass Marks 28

#### Answer any <u>FOUR Q</u>uestions. Each question carries FIVE Marks

1.	UNIT -1	5M
2.	UNIT -1	5M
3.	UNIT -2	5M
4.	UNIT -3	5M
5.	UNIT -4	5M
6.	UNIT -5	5M

#### Section-B

#### Answer any <u>FIVE</u> Questions. Each question carries TEN Marks

7. UNIT -1 10M 8. UNIT -2 10M 9. UNIT -2 10M 10. UNIT -3 10M 11. UNIT -3 10M 12. UNIT -4 10M 13. UNIT -4 10M 14. UNIT -5 \_\_\_\_\_ 10M 5X10=50M

4x5 = 20M

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

COMPUTER SCIENCE	CCSC401G	2021-'22	B.Com.(C.A.)

SEMESTER – IV

PAPER – IV

Max. Marks 70

Guidelines for paper setting 'DATA BASE MANAGEMENT SYSTEMS'

Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(essay
		questions)
Unit-1	2	1
Unit-2	1	2
Unit-3	1	2
Unit-4	1	2
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	(	With Effect from A	cademic Yea	ar 2020-21)	
C	OMPUTER SCIENCE	CCSC401P	2021-'22	B. COM(	CA)
SEME	ESTER –IV	PAPER – IV	V Max. Marks 50		·ks 50
Lab L	ist DATA BASE M	ANAGEMENT SY	STEMS		~
No. of	Hours per week: 2	External: 40	Inte	rnal: 10	Credits: 1
1.	Creation of college data	base and establish re	elationships b	etween table	S
2.	Explain various data typ	e in Oracle.			
3.	Show the structure of th	e Emp table.			
4.	Show the structure of th	e DEPT table.			
5.	Explain the syntax of SI	ELECT statement.			
6.	Create a query to display	y the name, job, hire	date and emp	loyee numbe	er from emp
7.	table. Create a query to displa	y unique jobs from	the emp table		
8.	Create a query to displa from emp.	the empno as EM	P#, ename as	EMPLOYEI	E and Hire_date
9.	Create a query to displ comma and name the co	ay all the data from olumn THE_OUTPU	the EMP table JT.	e. Separate e	ach column by
10	. Create a query to displa	y the name and salar	ry of employe	es earning m	ore than 2850.
11	. Create a query to displa the range of 1500 and 2	y the name and salar 850.	ry for all emp	loyees whose	e salary is not in
12	. Display the employee r 20,1981 and May 1, 19	name, job and start d 81. Order the query	late of employ in ascending	vees hired be order of star	tween Februar
13	Display the employee na departments 10 and 30 i	ame and department in alphabetical order	number of al by name.	l the employ	ees in
14	. List the name and salar department 10 or 30.	y of employees who	earn more th	an 1500 & ai	re in
15	. Display the name, salar and commission.	ry and commissions	and sort data	in descendin	g order of salar
16	. Display the name and j	ob title of all employ	yees who do n	ot have a ma	nager.
17	. Display the name, job a their salary is not equal	and salary for all emp to 1000, 3000 or 50	ployees whose 00.	e job is Clerl	c or Analyst and
18	. Display the names of al	ll employees where	the third letter	of their nan	ne is an 'A'.
19	. Display the names of all	l employees who ha	ve two 'L's ir	their name	and are in
20	Display the name sala	ry and commission	for all employ	vees whose c	ommission
20	amount is greater than t	heir salary increased	101 an empioy		011111351011
21	Explain all the character	r functions	1 Uy 1070.		
21 22	Explain all the number	functions			
22	Explain all the Date fur	notions			
23	. Explain an the Date ful				

Create Student database using the following tables.

STUDENT: Sno : primary key, numbers name : NOT NULL, varchar2 Address: Varchar2

COURSE:Sno : Foreign key.Course Name : varchar2 Queries:

- 1. Alter table by adding a column fees in table COURSE.
- 2. Alter table by modifying the address to VARCHAR2(20)
- 3. Create a view on which the students who joined in one course only.

#### PL/SQL.

- 1. Write A Pl/Sql Program To Swap Two Numbers Without Using Third Variable.
- 2. Write A Pl/Sql Program To Generate Multiplication Tables For Numbers 2,4 And 6
- **3.** Write A PI/Sql Program To Display Sum Of Even Numbers And Sum Of Odd Numbers In The Given Range.
- 4. Write A Pl/Sql Program To Check The Given Number Is Pollinndrome Or Not.
- 5. Write A Pl/Sql Program To Display Top 10 Rows In Emp Table Based On Their Job And Salary.

#### **Reference Books:**

- 1. Oracle Pl/Sql By Example. Benjamin Rosenzweig, Elena Silvestrova, Pearsoneducation 3rd Edition
- 2. Sql& Pl/Sql For Oracle 10g, Black Book, Dr.P.S. Deshpande

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### Title of the Paper: Object Oriented Programming with Java

Semester: IV

Course Code	CCSC402G	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** The objective of the course is to introduce the design and development of databases with special emphasis on relational databases.

#### **Course Outcomes:**

$CO_1$	Understanding the meaning and necessity of audit in modern era
CO2	Comprehend the role of auditor in avoiding the corporate frauds
CO3	Identify the steps involved in performing audit process
CO4	Determine the appropriate audit report for a given audit situation
CO5	Apply auditing practices to different types of business entities

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22)

COMPUTER SCIENCE	CCSC402G	2021-'22	B.Com.(CA)
<b>SEMESTER – IV</b>	PAPE	$\mathbf{R} - \mathbf{V}$	Max. Marks 70

#### SYLLABUS: 'OBJECT ORIENTATED PROGRAMMING THROUGH JAVA'

**Unit I:** Introduction to OOPs: Problems in Procedure Oriented Approach, Features of Object Oriented Programming

Introduction to Java: Features of Java, The Java Virtual Machine (JVM), Parts of Java program, Naming Conventions in Java, Data Types in Java, Operators in Java, Reading Input using scanner Class, Displaying Output using System. out.println (), Command Line Arguments.

**Unit II:** Control Statements in Java: if... else, do... while Loop, while Loop, for loop, Switch Statement, break Statement, continue Statement

Arrays: Types of Arrays, array name, length,

Strings: Creating Strings, String Class Methods, String Comparison, Immutability of Strings.

**Unit III:** Classes and Objects: Object Creation, Initializing the Instance Variables, Access Specifiers, Constructors

Inheritance: Inheritance, Types of Inheritance

Polymorphism: Method overloading, Operator overloading

Abstract Classes: Abstract Method and Abstract Class

**Unit IV:** Packages: Package, Different Types of Packages, Creating Package and Accessing a Package

Streams: Stream classes, Creating a File using File Output Stream, Reading Data from a File using File Input Stream, Creating a File using File Writer, Reading a File using File Reader

**Unit V:** Exception Handling: Errors in Java Program, Exceptions, throws Clause, throw Clause, Types of Exceptions

Threads: Single Tasking, Multi-Tasking, Uses of Threads, Creating a Thread and Running it, Terminating the Thread, Thread Class Methods.

#### **References:**

1. The Complete Reference JAVA Seventh Edition Herbert Schildt. Tata McGraw Hill Edition.

2. Core Java: An Integrated Approach, Dr. R. Nageswara Rao & Kogent Learning Solutions Inc.

3. E. Balaguruswamy, Programming with JAVA, A primer, 3e, TATA McGraw-Hill Company

#### **Online Resources:**

https://stackify.com/java-tutorials/ https://www.w3schools.com/java/ https://www.javatpoint.com/java-tutorial https://www.tutorialspoint.com/java/index.html

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22) COMPUTER SCIENCE CCSC402G 2021-'22 B.Com.(CA)

	COMI UTER SCIENCE	020	2021-22	<b>D.Com.</b> (CA)	
	SEMESTER – IV	PAPE	R – V	Max. Marks 7	D
M	odel Paper: 'OBJECT ORI	ENTATED PROG	RAMMING 7	THROUGH JAVA'	

	NO of Hours: 4	No Of Credits: 3	Pass
Marks	28		

Section-A

4x5 = 20M

Answer any <u>FOUR Q</u> uestions. Each question carries FIVE Marks				
1. UNIT -1	5M			
2. UNIT -1	5M			
3. UNIT -2	5M			
4. UNIT -3	5M			

5.	UNIT -4	5M
6.	UNIT -5	5M

#### Section-B

Answer any <u>FIVE</u> Questions.	Each question carries TEN Marks	5X10=50M
-----------------------------------	---------------------------------	----------

7. UNIT -1	10M
8. UNIT -2	10M
9. UNIT -2	10M
10. UNIT -3	10M
11. UNIT -3	10M
12. UNIT -4	10M
13. UNIT -4	10M
14. UNIT -5	10M

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22)

	COMPUTER SCIENCE	CCSC402G	2021-'22	B.Com.(CA)		
	SEMESTER – IV PA	PER –V Max.	Marks 70	Pass Marks 28		
(	Guidelines for paper setting 'OBJECT ORIENTATED PROGRAMMING THROUGH					
JAVA						

#### Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	1
Unit-2	1	2
Unit-3	1	2
Unit-4	1	2
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)				
COMPUTER SCIENCE	CCSC402P	2021-'22	B.Com.(CA)	
SEMESTER – IV	PAPER -	- V	Max. Marks 50	

Lab List: OBJECT ORIENTATED PROGRAMMING THROUGH JAVANo. of Hours per week: 2External: 40Internal: 10

#### Credits: 1

- Write a program to read *Student Name, Regd.No, Marks* [5] and calculate Total, *Percentage, and Result*. Display all the details of students
- 2. Write a program to perform the following String Operations
  - a. Read a string
  - b. Find out whether there is a given substring or not
  - c. Compare existing string by another string and display status
  - d. Replace existing string character with another character
  - e. Count number of works in a string
- **3.** Java program to implements Addition and Multiplication of two N X N matrices.
- 4. Java program to demonstrate the use of Constructor.
- 5. Calculate area of the following shapes using method overloading.
  - a. Triangle b. Rectangle c. Circle d. Square
- Implement inheritance between Person (Aadhar, Surname, Name, DOB, and Age) and Student (Admission Number, College, Course, Year)classes where ReadData(), Display Data() are overriding methods.
- 7. Java program on Multiple Inheritance.
- **8.** Java program for to display *Serial Number from 1 to N* by creating two Threads
- 9. Java program to demonstrate the following exception handlings
  - a. Divided by Zero b. Array Index Out of Bound c. File Not Found d. Arithmetic Exception
  - e. User Defined Exception

.10. Write a program to create *Book (ISBN,Title, Author, Price, Pages, Publisher)*structure and store book details in a file and perform the following operations a. Add book details b. Search a book details for a given ISBN and display book details, if available c. Update a book details using ISBN d Delete book details for a given ISBN and display list of remaining Books

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### Title of the Paper: WEB TECHNOLOGY

#### Semester: VI

Course Code	CSC-601GE	Course Delivery Method	Class Room / Blended Mode – Both	
Credits	3	CIA Marks	30	
No. of Lecture Hours / Week	4	Semester End Exam Marks	70	
Total Number of Lecture Hours	60	Total Marks	100	
Year of Introduction :2017-18	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%	

#### **Course Objectives:**

To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services.

#### **Course Outcomes:**

CO1	Understand the basic structure of a HTML design and develop a website using different text Formatting tags, images, links, lists and tables.
CO2	Understand to style a webpage using CSS and Basic Concepts of Java Scripts
CO3	Understand to style a webpage Using Objects in Java Script and DHTML.
CO4	Understand the Basic Concepts of XML and Defining Data for Web Applications
CO5	Understand the Concepts of JS.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-18)

(with Effect from Academic Tear 2017-18)				
COMPUTER SCIENCE	CSC-601(GE)	2021-'22	<b>B.Sc.</b> (MPCs & MCCs)	
SEMESTER – VI	PAPER – VII		Max. Marks 70	
<u>Svllabus</u>	WEB TECHN	OLOGIES		
NO of Hours: 4	No of Credits: 3		Pass Marks 28	

#### **Course Objectives:**

- 1. To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services.
- 2. To provide skills to design interactive and dynamic web sites.

#### **Unit -I** Introduction to XHTML:

Introduction to HTML, Basic html, Document body text, Hyper links, Adding more formatting Lists, Tables, Images, Multimedia Objects, Frames, Forms and XHTML.

#### Unit- II: CSS:

Cascading Style Sheets: Introduction, Defining your own styles, properties and values in styles, Formatting blocks of information, Layers.

Java Script: java Script, the basics, Variables, String Manipulations, Mathematical functions, Statements, Operators, Arrays, Functions.

Unit –III: Objects in Java Script & Dynamic HTML with Java Script 12 Hrs Objects in Java Script: Data and objects in java script, Regular expressions, Exception Handling, Built in objects, Events.

*Dynamic HTML with Java Script:* Data validation, Opening a new window, Messages and Confirmations, The status bar, writing to a different frame, Rollover buttons, Moving images, multiple pages in a single download, A text-only menu system, Floating logos.

#### Unit –IV: XML Defining Data for Web Applications

*XML:* Introduction to XML, Basic XML, document type definition, XML Schema, Document object model, presenting XML, Using XML parser.

#### UNIT-V: JSP:

JSP Lifecycle, Basic Syntax, EL (Expression Language), EL Syntax, Using EL Variables **Prescribed Books:** 

- 1. Chris Bates, Web Programming Building Internet Application, Second Edition, Wiley (2007)
- 2. Head First Servlet and JSP 2<sup>nd</sup> Edition, Bryan Basham, Kathy Sierra
- 3. Uttam Kumar Roy, Web Technologies from Oxford University Press

#### **Student Activities:**

- 1. Prepare a web site for your college
- 2. Prepare your personal website

## 12 Hrs

## 12 Hrs

#### 10Hr's

# 12 Hrs

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18) COMPUTER SCIENCE CSC-601(GE) 2021-'22 B.Sc.(MPCs& MCCs) SEMESTER – VI PAPER – VII Max. Marks 70

Model Paper No of Hours: 4 WEB TECHNOLOGIES No of Credits: 3

Pass Marks 28

#### Section -A

Answer **FOUR** Questions. Each Question carries **FIVE** Marks. **4 X 5=20M** 

- 1. Write about structure of HTML Document with an example
- 2. Explain about lists in HTML
- 3. Write about properties used in Style Sheet
- 4. Describe Data Object
- 5. Describe XML Elements
- 6. Write the syntax of EL and EL variables

#### Section- B

Answer **<u>FIVE</u>** the Questions. Each Question carries **TEN** Mark **5 X 10=50M** 

- 7. Explain about hyper links? Write about how to link another pages
- 8. What is Form? Explain about forms with examples
- 9. What is CSS? How to design Cascading style sheet
- 10. Explain about Mathematical Functions
- 11. Explain about Regular Expressions
- 12. Write about Data validations in DHTML
- 13. Explain about Document Object Model
- 14. Explain about JSP Lifecycle with neat diagram

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18)

COMPUTER S	SCIENCE	CSC-601(GE)	2021-22	B.Sc.(MPCs & MCCs)
SEMESTER - V	I P	APER – VII	Max. Marks	70 Pass Marks 28

#### Guidelines for paper setting 'WEB TECHNOLOGIES'

#### Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	COMPUTER SCIENCE	CSC-601(GE)	2021-	22 <b>B.S</b>	Sc.(MP	CS & MCCs)
	SEMESTER – VI	PAPER	– VII		Max	x. Marks 50
Lab List		WEB TECHNOI	OGIES			
				<b>.</b>	~ -	

- 1. Write an HTML program to demonstrate text formatting, working with images and hyper links
- 2. Write an HTML program to create Student Marks sheet preparation.
- 3. Write an HTML program to explain String manipulation-using functions.
- 4. Write an HTML program to explain <form> events
- 5. Write an HTML program to perform all arithmetic operations using java script.
- 6. Develop a HTML Form, which accepts any Mathematical expression. Write JavaScript code to Evaluates the expression and Displays the result.
- 7. Create a form for Student information. Write JavaScript code to find Total, Average, Result and Grade.
- 8. Create a form for Employee information. Write JavaScript code to find DA, HRA, PF, TAX, Gross pay, Deduction and Net pay.
- 9. Create a form consists of a Multiple choice questions that validates the answer dynamically and displaying result using java script.
- 10. Write a java script to work with following
- a. Date display b. Calendar c. Copy Selected Text
- b. IP Address

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### Title of the Paper: PHP, MySql & WORDPRESS

#### Semester: IV

Course Code	CSC-602CE	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2017-18	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

#### **Course Objectives:**

To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services.

#### **Course Outcomes:**

CO1	Understand the concepts Of PHP and MY SQL Installations.
CO2	Able to know the basic concepts Function and Working with Functions.
CO3	Understand the concepts of FORMS and working with FORMS.
CO4	Understand the concepts of MY SQL and MY SQL Components.
CO5	Able to know the concepts of WORD PRESS.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P. India. (With Effect from Academic Year 2017-2018)

COMPUTER SCIENCE	CSC-602CE 2021-'22		B.Sc.(MPCs& MCCs)
SEMESTER – VI	PAPER – V	Max. Marks 70	
<u>Syllabus</u>	PHP, MySql &	5	
NO Of Hours:4	Credits: 3	Pass Marks 28	

Course Objective: To introduce the concept of PHP and to give basic Knowledge of PHP. Learn about PHP Syntax., Arrays, PHP Loops, PHP and MySql connectivity, PHP form validation, PHP form handling. Overview of MySql and PHPMyAdmin, Understand basic concepts of how a database stores information via tables, Understanding of SQL syntax used with MySQL, Learn how to retrieve and manipulate data from one or more tables, Know how to filter data based upon multiple conditions, Updating and inserting data into existing tables, Learning how the relationships between tables will affect the SQL, The advantages of store procedures with storing data using variables and functions, How SQL can be used with programming languages like PHP to create dynamic websites for visitors, Review of some sample PHP projects interacting with MySql.

UNIT-1: Installing and Configuring MySQL: Current and Future Versions of MySOL, How to Get MySOL, Installing MySOL on Windows, Trouble Shooting your Installation, Basic Security Guidelines, Introducing MySQL Privilege System, Working with User Privileges. Installing and Configuring Apache: Current and future versions of Apache, Choosing the Appropriate Installation Method, Installing Apache on Windows, Apache Configuration File Structure, Apache Log Files, Apache Related Commands, Trouble Shooting. Installing and Configuring PHP: Building PHP with Apache on Windows, php.ini.Basics, The Basics of PHP scripts. The Building blocks of PHP: Variables, Data Types, Operators and Expressions, Constants. Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output.

#### **Unit – II: Working with Functions:**

What is function?, Calling functions, Defining Functions, Returning the values from User-Defined Functions, Variable Scope, Saving state between Function calls with the static statement, more about arguments. Working with Arrays: What are Arrays? Creating Arrays, Some Array-Related Functions. Working with Objects: Creating Objects, Object Instance Working with Strings, Dates and Time: Formatting strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.

#### **Unit – III: Working with Forms:**

Creating Forms, Accessing Form Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user. Sending Mail on Form Submission, Working with File Uploads. Working with Cookies and User Sessions: Introducing Cookies, Setting a Cookie with PHP, Session Function Overview, Starting a Session, Working with session variables, passing session IDs in the Query String, Destroying Sessions and Unsetting Variables, Using Sessions in an Environment with Registered Users. Working with Files and Directories: Including Files with inclue(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files, Writing or Appending to a File, Working with Directories.

15 Hrs

**10 Hrs** 

#### 10 Hrs

#### **Unit – IV: Introduction to MySQL**

#### 15Hrs

Introduction to My SQLand Interfacing with Databases through PHP Understanding the database design process: The Importance of Good Database Design, Types of Table Relationships, Understanding Normalization. Learning basic SQL Commands: Learning the MySQL Data types, Learning the Table Creation Syntax, Using Insert Command, Using SELECT Command, Using WHERE in your Queries, Selecting from Multiple Tables, Using the UPDATE command to modify records, Using RELACE Command, Using the DELETE Command, Frequently used string functions in MySQL, Using Date and Time Functions in MySQL. Interacting with MySQL using PHP: MySQL Versus MySQLi Functions, Connecting to MySQL with PHP, Working with MySQL Data. Unit – V: Word press 10

Word press: Introduction to word press, servers like wamp, bitnami e.tc, installing and configuring word press, understanding admin panel, working with posts and pages, using editor, text formatting with shortcuts, working with media-Adding, editing, deleting media elements, working with widgets, menus. Working with themes-parent and child themes, using featured images, configuring settings.

#### **References:**

1. Julie C. Meloni, PHP MySQL and Apache, SAMS Teach yourself, Pearson Education (2007).

2. Xue Bai Michael Ekedahl, The web warrior guide to Web Programming, Thomson (2006).

COMPUTER SCIENCE	CSC-602CE	2021-'22	B.Sc.(MPCs)
SEMESTER – VI	PAPER – VIII		Max. Marks 70
<u>Model Paper</u> NO Of Hours:3	PHP, MySql & Wor <u>No Of Credits</u>	rd Press : 3	Pass Marks 28
	Section- A		
nswer <u>FOUR Q</u> uestions. Eac	ch Question carries FIV	E Marks.	4*5=25N
Define variable and list the sta	ndard data types in PHP.		
What is Break and Continue st	atements in PHP.		
Define Function and write a pr	rogram for Function?		
Write programs to pass an argu	ument to function by Val	ue and Refe	rence in PHP.
What is Cookie and explain ho	ow to accessing cookie in	PHP.	
Write short notes on Word Pre	288.		
nswer <u>FIVE</u> Questions. Each	<u>Section- B</u> n Question carries TEN	Marks	5*10=50
. Explain about Operators and	Expressions available in	PHP with e	xamples.
Explain about Loops and swite	ching statements in PHP	with examp	les.
Explain about Arrays and related	ted functions to arrays in	PHP with e	xamples.
). Explain the following Strings	s functions with examples	S	
a. strlen() b. strstr() c.	strpos() d. substr() e.	strtok()	
. Explain how to send Mail on	form submission in PHP	<b>)</b> .	
2. Explain how to work with Se	essions in PHP.		
B. Explain how to insert & retrie	eve data with MySql in P	PHP.	

#### An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18)

	COMPUTER SCIENCE	CSC-602CE	2021-'22	B.Sc.(MI	PCs,MCCs)
	SEMESTER – VI	PAPER – VIII	Max. M	larks 70	Pass Marks 28
G	uidelines for paper setting	'PHP, MySql & V	Vord Press '		

#### Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(Essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	()	17-2018	)		
	COMPUTER SCIENCE	CSC-602CE	2021-'22	<b>B.Sc.</b> (1	MPCS&MCCS)
SEMESTER – VI		PAPE	CR – VIII	Max. Marks 50	
La No	ab List PHP, My o. of Hours per week: 3	Sql & Word Press I External: 25	.ab Inter	nal: 25	Credits: 2
Μ	ySQL Lab Cycle				
C	ycle -1				

An Enterprise wishes to maintain the details about his suppliers and other corresponding details. For that he uses the following details. Suppliers (sid: Integer, sname: string, address: string) Parts (pid: Integer, pname: string, color: string) Catalog (sid: integer, pid: integer, cost: real)

The catalog relation lists the prices charged for parts by suppliers.

Write the following queries in SQL:

1. Find the pnames of parts for which there is some supplier.

2. Find the snames of suppliers who supply every part.

3. Find the snames of supplier who supply every red part.

4. Find the pnames of parts supplied by London Supplier abd by no one else.

5. Find the sid's of suppliers who charge more for some part than the average cost of that part.

6. For each part, find the sname of the supplier who charges the most for that part.

- 7. Find the sid's of suppliers who supply only red parts.
- 8. Find the sid's of suppliers who supply a red and a green part.

9. Find the sid's of suppliers who supply a red or green part.

10. Find the total amount has to pay for that suppler by part located from London.

Cycle – 2

An organisation wishes to maintain the status about the working hours made by his employees. For that he uses the following tables.

Emp (eid: integer, ename: string, age: integer, salary: real)

Works (eid: integer, did: integer, pct\_time: integer)

Dept (did: integer, budget: real, managerid: integer)

An employee can work in more than one department; the pct\_time field of the works relation shows the percentage of time that a given employee works in a given department.

Resolve the following queries.

1. Print the names and ages of each employee who works in both Hardware and Software departments.

2. For each department with more than 20 full time equivalent employees (i.e., where the part-time and full-time employees add up to at least that many full-time employees), print the did's together with the number of employees that work in that department.

3. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she work in.

4. Find the managerid's of managers who manage only departments with budgets greater than 1,000,000.

5. Find the enames of managers who manage the departments with largest budget.

6. If a manager manages more than one department, he or she controls the sum of all the budgets for those departments. Find the managerid's of managers who control more than 5,000,000.

7. Find the managerid's of managers who control the highest amount.

8. Find the average manager salary.

#### PHP Lab Cycle

- 1. Write a PHP program to Display "Hello"
- 2. Write a PHP Program to display the today's date.
- 3. Write a PHP Program to read the employee details.
- 4. Write a PHP Program to display the
- 5. Write a PHP program to prepare the student marks list.
- 6. Write a PHP program to generate the multiplication of two matrices.
- 7. Write a PHP Application to perform demonstrate the college website.
- 8. Write a PHP application to add new Rows in a Table.
- 9. Write a PHP application to modify the Rows in a Table.
- 10. Write a PHP application to delete the Rows from a Table.
- 11. Write a PHP application to fetch the Rows in a Table.
- 12. Develop an PHP application to make following Operations
  - i. Registration of Users.
  - ii. Insert the details of the Users.
  - iii. Modify the Details.
  - iv. Transaction Maintenance.
    - a) No of times Logged in
    - b) Time Spent on each login.
    - c) Restrict the user for three trials only.
    - d) Delete the user if he spent more than 100 Hrs of transaction.

#### Wordpress Lab

- 1. Installation and configuration of word press.
- 2. Create a site and add a theme to it.

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### Title of the Paper: JQUERY/AJAX/JSON/ANGULAR JS

#### Semester: VI

Course Code	CSC-603CE	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2017-18	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

#### **Course Objectives:**

To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services.

#### **Course Outcomes:**

CO1	Understand the concepts Of HTML and JQUERY
CO2	Understand the concepts JQUERY and CSS Methods using DOM Attributes
CO3	Understand the concepts of JQUERY USER INTERFACE Programs
CO4	Understand the concepts of AJAX and JSON Objects
CO5	Develop the ability to solve real-world problems through software development inhigh-level programming language like ANGULAR JS and ANIMATIONS

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P. India. (With Effect from Academic Year 2017-2018)

COMPUT	ER SCIENCE	CSC-603CE	2021-'22	B.Sc.(MPCs,MCCs)	
SEMESTER – VI		PAPER – IX		Max. Marks 70	
<u>Syllabus</u>	Advanced ja	ava Script: JQUER	Y/AJAX/JSO	DN/ANGULAR JS	
NO Of Hours	s:4	Credits: 3		Pass Marks 28	

**Course Objective:** To impart knowledge in designing a webpage in a structured way by using advanced java script ie., using different scripting languages

#### **UNIT-1: JOuerv – Basics:**

String, Numbers, Boolean, Objects, Arrays, Functions, Arguments, Scope, Built-in Functions. jQuerySelectors: CSS Element Selector, CSS Element ID Selector, CSS Element Class Selector, CSS Universal Selector, Multiple Elements E, F, G Selector, Callback Functions. jQuery - DOM Attributes: Get Attribute Value, Set Attribute Value. jQuery – DOM Traversing : Find Elements by index, Filtering out Elements, Locating Descendent Elements, JQuery DOM Traversing Methods. 10 Hrs

#### Unit – II: jQuery – CSS Methods :

Apply CSS Properties, Apply Multiple CSS Properties, Setting Element Width & Height, JOuerv CSS Methods. jQuery - DOM Manipulation Methods: Content Manipulation, DOM Element Replacement, Removing DOM Elements, Inserting DOM elements, DOM Manipulation Methods. jQuery - Events Handling: Binding event handlers, Removing event handlers, Event Types, The Event Object, The Event Attributes. jQuery – Effects: JQuery Effect Methods, jQuery Hide and Show, jQuery Toggle, jQuery Slide - slideDown, slideUp, slideToggle, jQuery Fade - fadeIn, fadeOut, fadeTo, jQuery **Custom Animations** 

#### Unit – III: Intro to jQuery UI

, Need of jQuery UI in real web sites, Downloading jQuery UI, Importing jQuery UI, Draggable, Droppable, Resizable, Selectable, Sortable, Accordion, Auto Complete, Button Setw, Date Picker, Dialog, Menu, Progress Bar, Slider, Spinner, Tabs, Tooltip, Color Animation, Easing Effects, addClass, removeClass, Effects, jQuery UI themes, Customizing jQuery UI widgets / plug-ins, jQuery UI with CDN, Consuming jQuery Plug-ins from 3rd party web sites jQuery Validations, Intro to jQuery validation plug-in, Using jQuery validation plug-in, Regular expressions.

#### **Unit – IV: Intro to AJAX**

Need of AJAX in real web sites, Getting database data using jQueryAJAX, Inserting, Updating, Deleting database data using jOuery-AJAX Grid Development using jOuery-AJAX Intro to JSON JSON syntax, Need of JSON in real web sites, JSON object, JSON array, Complex JSON objects, Reading JSON objects using jQuery.

#### Unit – V: Intro to Angular.IS

Need of AngularJS in real web sites, Downloading AngularJS, AngularJS first example, AngularJS built-in directives, AngularJS expressions, AngularJS modules, AngularJS controllers, AngularJS scope AngularJS dependency injection AngularJS, bootstrapping AngularJS data bindings, AngularJS \$watch, AngularJS filters, AngularJS events, AngularJS AJAX, Ng-repeat, AngularJS with json arrays, AngularJS registration form and login form, AngularJS CRUD operations, AngularJS Animations, AngularJS validations AngularJS \$q, AngularJS custom values, AngularJS custom factories, AngularJS custom services, AngularJS custom directives, AngularJS custom providers, AngularJS Routing, AngularUI Routing.

#### **References:**

- 1. jQuery UI 1.8: The User Interface Library for jQuery by Dan Wellman
- 2. ¡Ouery Fundamentals by Rebecca Murphey 3. Ajax: The Complete Reference by Thomas

#### 15 Hrs

#### 15 Hrs

15 Hrs

# **10 Hrs**

<b>COMPUTER SCIENCE</b>	<b>CSC-603CE</b>	2021-'22	B.Sc.(MPCs,MCCs)
SEMESTER – VI	PAPER – IX	I	Max. Marks 70
Model Paper Advanced j	ava Script: JQUERY/A	JAX/JSON	VANGULAR JS
NO of Hours: 3	No Of Credits	: 3	Pass Marks 28
	Section- A		
Answer <u>FOUR</u> Questions. Ea	ch Question carries FIV	'E Marks.	4*5=20M
1 .What is jquery? Write a simp	le program to display we	lcome mess	age.
2. Write a jquery-dom attributes.			
. Write a program for jquery fac	le in, fade out.		
. Discuss in detail about jquery	UI categorization.		
. Write a need of AJAX in real	websites		
	built in directives		

#### Answer <u>FIVE</u> Questions. Each Question carries TEN Marks

5\*10=50M

- 7. Explain in detail about DOM traversing methods.
- 8. Explain detail about jquery-dom manipulation methods.
- 9. Explain detail about jquery even handling methods.
- 10. Write a program for droppable, resizable using jquery UI.
- 11. How can we manipulate the data in a database using jquery-AJAX?
- 12. What is JSON object? Discuss in detail about complex JSON objects.
- 13. What is angular JS? Need of angular JS in real websites &write any example program.
- 14. Write a program for registration from and login from using Angular JS.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18)

COMPUTER SCIE	NCE	CSC-603C	E	2021-'22	B.Sc.(MPCs)
SEMESTER – VI	PA	PER – IX	Μ	lax. Marks 70	Pass Marks: 28

Guidelines for paper setting ' Advanced java Script: JQUERY/AJAX/JSON/ANGULAR JS'

#### Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(Essay questions)
Unit-1	2	1
Unit-2	2	2
Unit-3	1	1
Unit-4	2	2
Unit-5	1	2

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Vear 2017-2018)

	()		define Teal 20	17 2010)	
	COMPUTER SCIENCE	CSC-603CE	2021-'22	B.Sc.(MPC	S&MCCs)
SE	CMESTER – VI	PAPER – IX		Max	x. Marks 50
La	b List Advanced java Scrip	ot: JQUERY/AJAX	K/JSON/ANG	ULAR JS	
	No. of Hours per week: 3	External: 2	5 In	ternal: 25	Credits:2

1. Using jQuery find all textareas, and makes a border. Then adds all paragraphs to the jQuery object to

set their borders red.

- 2. Using jQuery add the class "w3r\_font\_color" and w3r\_background to the last paragraph element.
- 3. Using jQuery add a new class to an element that already has a class.
- 4. Using jQuery insert some HTML after all paragraphs.
- 5. Using jQuery insert a DOM element after all paragraphs.
- 6.Convert three headers and content panels into an accordion. Initialize the accordion

And specify the animate option

- 7. Convert three headers and content panels into an accordion. Initialize the accordion and specify the height.
- 8. Create a pre-populated list of values and delay in milliseconds between a keystroke occurs and a search is performed.
- 9. Initialize the button and specify the disable option.
- 10. Initialize the button and specify an icon on the button.
- 11. Initialize the button and do not show the label.
- 12. Create a simple jQuery UI Datepicker. Now pick a date and store it in a textbox.
- 13. Initialize the date picker and specify a text to display for the week of the year column heading.

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### Title of the Paper:PROJECT (Java, PHP & MYSQL)Semester:VI

Course Code	CSC-604GE	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2017-18	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

#### **Course Objectives:**

To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-'18)

COMPUTER SCIENCE	CSC PROJ-602 P	2021-'22	B.Sc.(MPCs,MCCs)
------------------	----------------	----------	------------------

#### SEMESTER – VI PROJECT (Java, PHP & MYSQL) Max. Marks 100

#### **OBJECTIVE**

The objective of the Project Course is to help the students to study, analyze and design software or utility for different problems or applications. This will improve the skills of software development of the students.

#### MARKS FOR PROJECT EVALUATION

The project course will be evaluated for **100** Marks, of which **75** marks are meant for the practical evaluation of a project and **25** marks are allotted for attending viva-voce examination. The passing minimum in the project work will be 50% of the total mark. i.e. the student should get minimum 50% marks in the project evaluation and the viva-voce examination. Thus, the minimum mark the student is required to obtain is 50 out of 100 marks.

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### **Title of the Paper: TALLY**

#### Semester: VI

Course Code	CSC-605CE	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2017-18	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

#### **Course Objectives:**

To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services.

#### **Course Outcomes:**

$CO_1$	Able to understand the basic concepts of TALLY
CO2	Able to understand the installation of TALLY Software.
CO3	Able to implement the concepts of ledgers
CO4	Able to implement the concepts of vouchers
CO5	Able to implement the basic concepts of final accounts

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-2018)

COMPUTER SCIENCE	CCSC-605CE	2021-22	B.Com (C.A)
SEMESTER -VI	PAPER	– IX	Total: 60 Hrs
Syllabus	TALLY		Max.Marks:70
<u>Credits 3</u> Unit-I: Introduction to Tall	NO Of Hours 5 v:		Pass Marks 28 12Hrs

Introduction, Software versions of Tally, Terminology related to Accounts credit & Debit, Journal, Ledger, Voucher, Group etc. Difference between Manual Accounting and Accounting Packages. Features and advantages of Tally.

**Unit-II: Introduction of Tally Software** 

Introduction of Tally Software Creation of a company, Gateway of Tally, Accounts Information, Groups, pre defined Groups, Creation of New Groups, and Creation of sub Group.

#### **Unit-III: Ledgers**

Ledger Creation Single and multiple Ledgers, Displaying & altering Ledgers, configure Ledger, Stock Ledger, Ledgers and their Group Allocation.

#### **Unit-IV: Vouchers**

Types of vouchers – recording of vouchers – entry of payment voucher, Receipt voucher, sales voucher, purchase voucher, Journal Voucher, Contra Voucher, Debit & Credit Note. Creating New Voucher types, customizing the Existing voucher types, Alternation of Voucher, Deletion of Voucher.

#### **Unit-V: Final Accounts**

Customizing the final accounts - Profit and Loss Account, Balance Sheet. Key board shortcuts in Tally. Generating the Reports from Tally, Trial Balance, Account Books, Sales, Purchase, Journal Registers, Statement of Accounts, Day Book, List of Accounts.

#### **Reference Books:**

1. K. Kiran Kumar, Tally ERP9.

2. Tally 9 In Simple Steps, Kogent solutions Inc., John Wiley & Sons, 2008.

3. Narmata Agarwal, Financial Accounting on Computers Using Tally, Dreamtech Press, 2000.

4. Tally 9.0, Google eBook, Computer World.

5. Vikas Gupta, Comdex Computer and Financial Accounting with Tally 9.0, 2007.

#### 12Hrs

12Hrs

12Hrs

#### 12Hrs

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2017-2018)				
COMPUTER SCIENCE	CCSC-605CE	2021-22	B.Com (C.A)	
SEMESTER –VI	PAPER -	- IX	Total: 60 H	Irs
Model Paper	TAL	LY	Max.Marks:70	0
Credits 3	<u>NO Of Hours 5</u>		Pass Marks: 28	

Answer **<u>FIVE</u>** Questions. Each Question carries **FIVE** Marks. 5x5=25M

- 1. Differentiate between Manual Accounting and Accounting Packages?
- 2. What are the features of Tally?
- 3. How to maintain account information? Explain
- 4. Explain how to create a stock ledger?
- 5. Explain contra Voucher
- 6. Write a short note on Day Book

#### Section-B

Answer **<u>FIVE</u>** the Questions. Each Question carries **TEN** Marks 5 X 10=50M

- 7. Explain evolution of Tally and what are the features and advantages of Tally
- 8. Explain versions of Tally software
- 9. Explain about Gateway of Tally
- 10. Explain about Group and predefined Groups
- 11. Explain ledger creation
- 12. How to create a single and multiple ledgers
- 13. Explain different types of vouchers?
- 14. Explain how to generate the reports from Tally?

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2017-'18)

	COMPUTER SCIENCE	CCSC-605CE	2021-22	B.Com (C.A)		
S	EMESTER –VI	PAPER – IX N	Aax. Marks 70	Pass Marks 28		
	Guidelines for paper setting 'TALLY'					

Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
An Autonomous college within the jurisdiction of Krishna University A.P, India.
(With Effect From Academic Year 2017-'18)

COMPUTER SCIENCE	CCSC-605P		2021-22	B.Com.(C.A.)
SEMESTER – VI	PAPER – V			Max. Marks:50 Pass Mark: 20
	TALLY			1 ass wark. 20
No. Of Hours per week: 3 Lab list	External: 25	Intern	al: 25	Credits: 2
1. Architecture and customization of	Tally			
2. Configuration of Tally				
3. Tally Screens and Menus				
4. Creation of new company and gro	ups.			
5. Preparation of voucher entries.				
a. Payment voucher creation				
b. Receipt voucher creation				
c. Sales voucher creation				
d. Purchase voucher creation				
e. Contra voucher creation				
f. Journal voucher creation				
6. Ledger Creation.				
7. Preparation of VAT				
8. Preparation of TDS				
7. Preparation of Trail balance				
8. Preparation of Profit and loss state	ement.			
9. Preparation of Balance Sheet				
<ol> <li>Preparation of Bank Reconciliati</li> <li>Example Exercise</li> </ol>	on Statement.			

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### Title of the Paper: E-COMMERCE

#### Semester: VI

Course Code	CSC-606CE	Course Delivery Method	Class Room / Blended Mode – Both	
Credits	3	CIA Marks	30	
No. of Lecture Hours / Week	4	Semester End Exam Marks	70	
Total Number of Lecture Hours	60	Total Marks	100	
Year of Introduction :2017-18	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%	

#### **Course Objectives:**

To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services.

#### **Course Outcomes:**

CO1	Understand the benefits of a well-structured program
CO2	Understand different computer programming paradigms
CO3	Understand underlying principles of Object-Oriented Programming in Java
CO4	Develop problem-solving and programming skills using OOP concepts
CO5	Develop the ability to solve real-world problems through software development inhigh-level programming language like Java

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2017-2018)

	( · · · · · · · · · · · · · · · · · · ·		/	
COMPUTER SCIEN	ICE CCSC-606CE	2021-22	B.Com (C.A)	
SEMESTERVI	STER –VI PAPER – X			
Syllabus	E-COMME	<b>E-COMMERCE</b>		
Credits 3	NO Of Hours 5	NO Of Hours 5		
<b>Unit-I: Introduction to</b>	E-Commerce			
Scope, Definition, e-Con	nmerce and the Trade	Cycle, Electronic	Markets, Electronic Dat	

Scope, Definition, e-Commerce and the Trade Cycle, Electronic Markets, Electronic Data Interchange, Internet Commerce. Business Strategy in an Electronic Age: Supply Chains, Porter's Value Chain Model, Inter Organizational Value Chains, Competitive Strategy, First Mover Advantage – Sustainable Competitive Advantage, Competitive Advantage using E-Commerce – Business Strategy.

#### **Unit-II: Business-to-Business Electronic Commerce**

Characteristics of B2B EC, Models of B2B EC, Procurement Management by using the Buyer's Internal Market place, Just in Time Delivery, Other B2B Models, Auctions and Services from traditional to Internet Based EDI, Integration with Back-end Information System, Role of Software Agents for B2B EC, Electronic marketing in B2B, Solutions of B2B EC, Managerial Issues, Electronic Data Interchange (EDI), EDI: Nuts and Bolts EDI and Business.

#### **Unit-III: Internet and Extranet**

Automotive Network Exchange, Largest Extranet, Architecture of the Internet, Intranet and Extranet, Intranet software, Applications of Intranets, intranet Application Case Studies, Considerations in Intranet Deployment, Extranets, Structures of Extranets, Extranet products and services, Applications of Extranets, Business Models of Extranet Applications, Managerial Issues. Electronic Payment Systems: Issues and Challenges.

#### **Unit-IV: Public Policy**:

From Legal Issues to Privacy : Legal Incidents, Ethical and Other public Policy Issues, Protecting Privacy, Protecting Intellectual Property, Free speech, Internet Indecency and Censorship, Taxation and Encryption Policies, Other Legal Issues: Contracts, Gambling and More, Consumer and Seller Protection in EC.

#### **Unit-V: Infrastructure For EC**

Network of Networks, Internet Protocols, Web- Based client/Server, Internet Security, Selling on the Web, Chatting on the Web, Multimedia delivery, Analyzing Web Visits, Managerial Issues, Equipment required for establishing EC Sites – problems in Operation – Future of EC.

#### **Reference Books**

- 1. David Whiteley, "E-Commerce", Tata McGraw Hill, 2000.
- 2. E Business by Parag Kulakarni and Sunitha Jahirabadkar from Oxford University Press.
- 3. E Business by Jonathan Reynolds from Oxford University Press.
- 4. Eframi Turban, Jae Lee, David King, K. Michael Chung, "Electronic Commerce",
- 5. Pearson Education, 2000.
#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

		(With	Effect From Acade	emic Year 2017	7-2018)
	CON	MPUTER SCIENCE	CCSC-606CE	2021-22	B.Com (C.A)
SEMESTER –VI Svllabus E		<u>VI</u> E-0	PAPER – X COMMERCE		Total: 60 Hrs
Max.Ma	arks:'	70			
<u>Credits</u>	<u>3</u>	NO	O Of Hours5	Р	ass Marks 28
A	Answe	er <u>FIVE</u> Questions. Eac	Section-A Ch Question carries I	FIVE Marks.	5*5=25M
	1.	Explain Electronic dat	a interchange?		
	2.	Write about Value Ch	ain Model		
	3.	What are the character	ristics of B2B Electr	onic Commerce	<u>,</u>
	4.	Write about application	ons of Intranet?		
	5.	Explain encryption po	licies?		
	6.	Write about Internet p	rotocols?		
			Section-B		
A	Answe	er <u>FIVE</u> Questions. Eac	ch Question carries 7	<b>FEN</b> Marks.	5*10=50M
	7.	What are the advantag	ges and limitations o	f E-commerce?	
	8.	Write Business Strate	egy in an Electronic a	age	
	9.	Explain Electronic Da	ta Interchange(EDI)	1	
	10	. Explain different Mod	lels of B2B Electron	ic Commerce?	
	11	. Explain the Architectu	are of Internet?		
	12	. Explain Business Mod	lels of Extranet App	lications?	
	13	. Explain Ethical and O	ther public Policy Is	sues?	
	14	. Explain about the futu	re of EC		

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2017-2018)

	COMPUTER SCIENCE	CCSC-606CE	2021-22	B.Com (C.A)
S	EMESTER –VI	PAPER – X	Max. Marks	70 Pass Marks 28

#### Guidelines for paper setting <u>'E-COMMERCE'</u>

#### Unit wise weight age of Marks

	Section-A (Short answer questions)	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

#### A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### Title of the Paper: PHP & MySql

#### Semester: IV

Course Code	CSC-607CE	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2017-18	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

#### **Course Objectives:**

To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services.

#### **Course Outcomes:**

CO1	Understand the benefits of a well-structured program
CO2	Understand different computer programming paradigms
CO3	Understand underlying principles of Object-Oriented Programming in Java
CO4	Develop problem-solving and programming skills using OOP concepts
CO5	Develop the ability to solve real-world problems through software development inhigh-level programming language like Java

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect From Academic Year 2017-'18)

COMPUTER SCI	ENCE CCSC-607CE	2021-22	B.Com (C.A)
SEMESTER -VI	PAPER -	- XI	
Syllabus PHP& MY SQL			Max.Marks:70
<u>Credits 3</u> Unit-I: Building bloc	NO Of Hours 5 ks of PHP:		Pass Marks 28

Variables, Data Types, Operators and Expressions, Constants. Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output. Working with Functions: Defining Functions, Calling functions, returning the values from UserDefined Functions, Variable Scope, Saving State between Function calls with the Static statement, more about arguments.

#### **Unit-II: Working with Arrays:**

Arrays, Creating Arrays, Some Array-Related Functions. Working with Objects: Creating Objects, Object Instance. Working with Strings, Dates and Time: Formatting Strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.

#### **Unit-III: Working with Forms:**

Creating Forms, Accessing Form – Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads. Working with Cookies and User Sessions: Introducing Cookies, Setting a Cookie with PHP, Session Function Overview, Starting a Session, Working with session variables, passing session Ids in the Query String, Destroying Sessions and Unsetting Variables, Using Sessions in an Environment with Registered Users.

#### **Unit-IV: Working with Files and Directories:**

Including Files with include(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files, Writing or Appending to a File, Working with Directories, Open Pipes to and from Process Using popen (), Running Commands with exec(), Running Commands with system () or passthru (). Working with Images: Understanding the Image-Creation Process, Necessary Modifications to PHP, Drawing a New Image, Getting Fancy with Pie Charts, Modifying Existing Images, Image Creation from User Input.

#### Unit-V: Interacting with MySQL using PHP:

MySQL Versus MySQLi Functions, Connecting to MySQL with PHP, Working with MySQL Data. Creating an Online Address Book: Planning and Creating Database Tables, Creating Menu, Creating Record Addition Mechanism, Viewing Records, Creating the Record Deletion Mechanism, Adding Sub-entities to a Record.

#### References:

1. Julie C. Meloni, PHP MySQL and Apache, SAMS Teach Yourself, Pearson Education (2007).

2. Xue Bai Michael Ekedahl, The Web Warrior Guide to Web Programming, Thomson (2006).

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	(With	Effect From Acade	nic Year 20	17-2018)
	COMPUTER SCIENC	E CCSC-607CE	2021-22	B.Com (C.A)
<u>SEN</u> Hrs	AESTER –VI	PAPER –	XI	Total: 60
Syll	abus	PHP & MYS	SQL	
	Max.Marks:70	<u>Credits 3</u> N	O Of Hours	5 Pass Marks 28
	Answer <u>FIVE</u> Questi	Section Section ca	n-A rries FIVE N	Marks. 5*5=25M
	1. Explain about	different data types av	vailable in Pl	HP?
	2. Define function	n? Explain how to cal	l the function	n?
	3. Write a short r	note on Creating Object	cts	
	4. Explain about	date and time function	ns?	
	5. Explain about	cookies?		
	6. Describe how	to create the Record A	Addition Mec	chanism?
		Saatic	m D	
	Answer FIVE Questi	Secure one Each Quastion on	rrias <b>TEN</b> M	10+1/0 5*10-50N
	Allswei <u>FIVE</u> Questi	ons. Each Question ca		Tarks. 5.10=3010
	7. Explain differe	ent types of Operators	in PHP?	
	8. Explain flow	control functions in P	HP?	
	9. What is an Arr	ray? Explain about arr	ay related fu	nctions.
	10. Explain differe	ent string functions in	PHP?	
	11. Explain about	how to create and acc	ess a form ir	PHP?
	12. Describe the v	vorking with session v	ariables?	
	13. Explain worki	ng with Directories?		

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2017-2018)

Computer Science	CCSC-607CE	2021-22	B.Com (C.A)
SEMESTER –VI	PAPER – XI	Max. Marks	70 Pass Marks 28

#### Guidelines for paper setting <u>'PHP & MYSOL'</u>

Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

8	U			•	
(With E	ffect from Academ	ic Year 201	7-2018)		
COMPUTER SCIENCE	CCSC-607CE	2021-22	B.Co	om (C.A)	
<u>SEMESTER –VI</u>	PAPER – VI			Total: (	」 50 Hr
Lab List PHP, My No. of Hours per week: 2	SQL External: 25	Int	ternal: 25	Pass Marks Cre	; 20 dits: 2
MySQL Lab Cycle					
Cycle -1 An Enterprise wishes to main corresponding details. For that h Suppliers (sid: Integer, sname: s Parts (pid: Integer, pname: string Catalog (sid: integer, pid: integer)	tain the details ab the uses the following string, address: strin g, color: string) er, cost: real)	out his sup g details. g)	pliers and	other	
The catalog relation lists the pri-	ces charged for part	s by supplie	rs.		
Write the following queries in S	QL:				
<ol> <li>Find the pnames of parts for</li> <li>Find the snames of suppliers</li> </ol>	which there is some who supply every p	e supplier. bart.			

- 3. Find the snames of supplier who supply every red part.
- 4. Find the pnames of parts supplied by London Supplier abd by no one else.

5. Find the sid's of suppliers who charge more for some part than the average cost of that part.

- 6. For each part, find the sname of the supplier who charges the most for that part.
- 7. Find the sid's of suppliers who supply only red parts.
- 8. Find the sid's of suppliers who supply a red and a green part.
- 9. Find the sid's of suppliers who supply a red or green part.
- 10. Find the total amount has to pay for that suppler by part located from London.

Cycle - 2

An organisation wishes to maintain the status about the working hours made by his employees. For that he uses the following tables.

Emp (eid: integer, ename: string, age: integer, salary: real)

Works (eid: integer, did: integer, pct\_time: integer)

Dept (did: integer, budget: real, managerid: integer)

An employee can work in more than one department; the pct\_time field of the works relation shows the percentage of time that a given employee works in a given department.

Resolve the following queries.

1. Print the names and ages of each employee who works in both Hardware and Software departments.

2. For each department with more than 20 full time equivalent employees (i.e., where the part-time and full-time employees add up to at least that many full-time employees), print the did's together with the number of employees that work in that department.

3. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she work in.

- 4. Find the managerid's of managers who manage only departments with budgets greater than 1,000,000.
- 5. Find the enames of managers who manage the departments with largest budget.

6. If a manager manages more than one department, he or she controls the sum of all the budgets for those departments. Find the managerid's of managers who control more than 5,000,000.

7. Find the managerid's of managers who control the highest amount.

8. Find the average manager salary.

#### PHP Lab Cycle

- 1. Write a PHP program to Display "Hello"
- 2. Write a PHP Program to display the today's date.
- 3. Write a PHP Program to read the employee details.
- 4. Write a PHP program to prepare the student marks list.
- 5. Write a PHP program to generate the multiplication of two matrices.
- 6. Write a PHP Application to perform demonstrate the college website.
- 7. Write a PHP application to add new Rows in a Table.
- 8. Write a PHP application to modify the Rows in a Table.
- 9. Write a PHP application to delete the Rows from a Table.
- 10. Write a PHP application to fetch the Rows in a Table.
- 11. Develop an PHP application to make following Operations
  - i. Registration of Users.
  - ii. Insert the details of the Users.
  - iii. Modify the Details.
  - iv. Transaction Maintenance.
    - a) No of times Logged in
    - b) Time Spent on each login.
    - c) Restrict the user for three trials only.
    - d) Delete the user if he spent more than 100 Hrs of transaction.

## A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

## VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

## Accredited by NAAC with "A" Grade

## 2021-2022



#### **DEPARTMENT OF COMPUTER SCIENCE**

#### **MINUTES OF BOARD OF STUDIES**

#### **ODD SEMESTER**

10-11-2021

Minutes of the meeting of Board of Studies in Computer Science for Semester I, III & V of I, II & III years B.Sc. (MPCs, MCCs, MSCs), B.Com. (C.A.) and B.Com (e-Commerce) Life Skill Course and Skill Development Course of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 9.30 Sri T.NagaPrasadaRao Presiding Members Present: Chairman (T.NagaPrasadaRao) Head, Department of Computer Science, AG & SG Siddhartha Degree College of Arts & Science. 21 University Principal, Krishna University College of Engineering (Dr. M. Babu Reddy) Nomine and Technology, Machilipatnam. 3)." Subject Head, Department of Computer Science (Dr. P. J. S Kumar) Expert A.N.R College Gudivada. 2 Subject Deputy Head, Department of Computer Science (Mr. K. Sridhar) Expert PB Siddhartha College of Arts & Science, Vijayawada. Industrial .Net Developer, Maven Soft System Pvt. Ltd (R. Sowian Expert Madaapur, Hyderabad. 6).... (T. Keerthi) Member Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru 40 7).... ...Member (K Srikanth) Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165. Member Lecturer in Computer Science, AG & SG Siddhartha (S.Prabhavathi) Degree College of Arts & Science, Vuyyuru-521165 A. Snavan 9) Member Lecturer in Computer Science, AG & SG Siddhartha (A Sm Degree College of Arts & Science, Vuyyuru-521165 10)....mall Member (V.N.MalleswraRao) Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165 11)..... ... Member Lecturer in Computer Science, AG & SG Siddhartha (A. Naga Srinivasa Rao) Degree College of Arts & Science, Vuyyuru-521165 12)..... upi. ..... Member Lecturer in Computer Science, AG & SG Siddhartha (V. Munni) Degree College of Arts & Science, Vuyyuru-521165 13) K. Rajyn Lokahm, Member Student in M.Sc. Computer Science, AG& SG Siddhartha (K. Rajya Lakshmi) Degree College of Arts & Science, Vuyyuru-521165 14) M. TUDT Member Student in B.Sc. Computer Science, AG& SG Siddhartha (M. Jyothi) Degree College of Arts & Science, Vuyyuru-521165

#### Agenda for B.O.S Meeting.

- To Discuss and approve the Structure and Syllabi, Model Question Paper for first Semester of B.Sc.(MPCs, MCCs.MSCs) & B.Com (C.A), B.Com(e-Commerce) Programs for the student are admitted from the Academic Year 2021-22.
- To Discuss and approve the Structure and Syllabi, Model Question Paper for Third Semester of B.Sc.(MPCs, MCCs.) & B.Com (C.A) Programs for the Academic Year 2021-22.
- 3. To Discuss and approve the Structure and Syllabi, Model Question Paper for Fifth Semester of B.Sc.(MPCs, MCCs.) & B.Com (C.A) Programs for the Academic Year 2021-22.
- 4. To recommend any changes in the syllabi for I, III, V Semesters of I, II, III year Degree B.Sc.(MPCs, MCCs, MSCs), B.Com.(C.A.) and B.Com(e-commerce).
- 5. To Introduce a New Programs for B.Sc (MSCs) and B.Com (e-commerce) from the Academic Year 2021-22.
- 6. To Introduce a Life Skill Course and Skill Development Course for all B.Sc and B.Com from the Academic Year 2021-22.
- 7. To recommend the teaching and evaluation methods to be followed under Autonomous status.
- 8. To recommend the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG & SG Siddhartha Degree College of Arts & Science College, Vuyyuru.
- 9. Any other matter

#### Resolutions.

 It is Resolved and Recommended to adopt the structure and syllabi and Model Question Papers for first semester of B.Sc.(MPCs, MCCs, MSCs) & B.Com (C.A), B.Com(e-Commerce) Programs under CBCS(Choice Based Credit System) Approved by the Academic Council from the Academic Year 2021-22.

2) It is Resolved and Recommended to adopt the structure and syllabi and Model Question Papers for Third semester of B.Sc.(MPCs, MCCs) & B.Com (C.A), Programs under CBCS(Choice Based Credit System) Approved by the Academic Council from the Academic Year 2020-21

- 3) It is Resolved and Recommended to adopt the structure and syllabi and Model Question Papers for fifth semester of B.Sc.(MPCs, MCCs) & B.Com (C.A), Programs under CBCS(Choice Based Credit System) Approved by the Academic Council from the Academic Year 2020-21
  - 4) It is Resolved and Recommend any changes in the syllabi for I, III, V Semesters of I, II, III year Degree B.Sc.(MPCs, MCCs, MSCs), B.Com.(C.A.) and B.Com(e-commerce).
    - It is Resolved and Recommend change Syllabi and Model Question paper as per new regulations in I & III Semester of I & II Year Degree B.Sc. (MPCs, MCCs) and B.Com(CA).
    - It is Resolved and recommend NO changes in the syllabi for V Semester of III Year B.Sc. (MPCs, MCCs) & B.Com.(CA).
    - It is Resolved and recommend to Value Added Course on ARTIFICIAL INTELLIGENCE Course code AIVAC101 in SEMESTER III for Second Year Students.
  - 5) It is Resolved to implements New Programs for B.Sc (MSCs) and B.Com (e-commerce) from the Academic Year 2021-22.
  - 6) It is Resolved to implements Life Skill Course and Skill Development Course for all B.Sc and B.Com from the Academic Year 2021-22.
  - 7) It is resolved to continue the teaching and evaluation methods to be followed under Autonomous status.
  - 8) It is resolved to continue the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG & SG Siddhartha Degree College of Arts & Science College, Vuyyuru.
  - 9) Any other matter

#### Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of LMS and LCD projector to display on power board etc..for better understanding of concepts. *Evaluation of a student is done by the following procedure:* 

There are two components in the Valuation and Assessment of a student – Internal Assessment (IA) Semester Examinations (SE). For the Batch of Students Admitted from 2021-22.

#### Internal Assessment (IA)

- The maximum mark for IA is 25 and SE is 75 for theory; and for practical marks for IA 10 and 40 Marks for External Exam.
- Each IA written examination is of 1 hour 30 minutes duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.

- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /PPT/Online- assignments/Open Book/Viva Voce/ Group work/ Mini
- Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation.
- The semester examination will be of 3 hours with maximum 75 marks.
- There are no passing minimum marks for IA.

#### Internal Assessment (IA)

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical marks for IA 10 and 40 Marks for External Exam.
- Each IA written examination is of 1 hour 30 minutes duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /PPT/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation.
- For attendance 5 Marks are allotted.
- The semester examination will be of 3 hours with maximum 70 marks.
- There are no passing minimum marks for IA.

#### Semester Examinations (SE)

- A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.
- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration & Foundation course 2 hours irrespective of the number of credits allotted to it.
- If a candidate fails to obtain pass marks even after the due to less mark in the IA examination, the marks of the next examination will be converted to be out of 100.
- Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'.
- The maximum marks for each Paper shall be 100.

Question paper guide lines for Practical Examinations at the end of Semesters I, III & V Two Practical Programs to be conducted out of 15 programs at the end of Semester I, III & V Practical Examination time 3Hrs and Maximum Marks 50 Scheme of valuation Semesters – I, III & V B.Sc.& B.Com.(C.A),

<b>Computer Science Practical's -</b>	External (T	'ime: 3 hrs.)	
1. Programs Writin	g (2) :	20 marks,	
2. Viva voice	:	5 marks	
3. Execution & Re	sult :	15 marks	
Total Marks	`:	40	

#### **Computer Science Practical's- Internal**

#### **Total Marks: 10 M**

**Total Marks: 25M** 

Record : 10 marks
 Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council.

7) Discussed and empowered the HOD to suggest the panel of the paper setters and examiners to the controller of the examinations.

8). We implemented online certificate courses such as NPTL, APSSDC - PYTHON, R- Programming, Amazon Web services and JAVA -----etc. To fill the curriculum gaps from II year Degree on words

9). Suggestions

Chairman

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

			-
COMPUTER SCIENCE	CSC-501C	2021-'22	B.Sc.(MPCs,MCCs)
SEMESTER – V	PAPER – V		Max. Marks 70
<u>Syllabus:</u> DATA BASE	MANAGEMENT	SYSTEMS	
NO of Hours: 4	to Of Credits: 3		Pass Marks 28

**Course Objective**: Design & develop database for large volumes & varieties of data with optimized data processing techniques.

#### **Unit – I: Database Systems Introduction**

Database Systems: Introducing the database and DBMS, Why the database is important,

Historical Roots: Files and File Systems, Problems with File System, Data Management, Database Systems. Data Models: The importance of Data models, Data Model Basic Building Blocks, The evaluation of Data Models, Degree of Data Abstraction.

#### Unit - II: Relational Database & Data Modelling

The Relational Database Model: A logical view of Data, Keys, Integrity Rules, Relational Set Operators, The Data Dictionary and the system Catalog, Indexes, Codd's relational database rules

.Entity Relationship Model: The ER ModelAdvanced Data Modelling: The Extended Entity Relationship Model, Entity clustering, Entity integrity.

#### **Unit-III: Normalization and Database Design**

Data base Tables and Normalization, The need Normalization, The Normalization Process, High level Normal Forms, Normalization and database design, de normalization.

Database Design: The Information System, The Systems Development Life Cycle, The Database Life Cycle, Centralized Vs Decentralized design.

#### **Unit-IV: Structured Query Language**

Introduction to SQL: Data Definition Commands, Data Manipulation Commands, Select queries, Advanced Data Definition Commands, Advanced Select queries, Virtual Tables, SQL Join Operators, Sub queries and correlated queries, SQL Functions.

#### **Unit-V: Procedural SQL**

Introduction to PL/SQL: Triggers, Stored Procedures, Pl/ SQL Stored Functions

#### **Prescribed Text Book**:

Peter Rob, Carlos Coronel, Database Systems Design, Implementation and Management, Seventh Edition, Thomson (2007).

**Reference Books:** 

Elimasri / Navathe, Fundamentals of Database Systems, Fifth Edition, Pearson Addison Wesley 2. Raman A Mata – Toledo/Panline K Cushman, Database Management Systems, .

C.J.Date, Arkansan, S.Swamynathan, An Introduction to Database Systems, Eight edition,

"DatabaseSystemConcepts" by AbrahamSilberschatz, Henry Korth, and S.Sudarshan,

Atul Kahate, Introduction to Database Management Systems, Pearson Education (2006).

Student Activity: 1. Create your college database for placement purpose. 2. Create faculty database of your college with their academic performance scores

#### 12 Hrs

# 10Hrs

#### 12Hrs

12 Hrs

14 Hrs

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

COMPUTER SCIENCE	CSC-501C	2021-'22	B.Sc.(MPCs,MCCs	)
SEMESTER – V	PAPER – V	Max.	Marks 70	]
Model Paper: DATA BASE N	IANAGEMENT SYS	STEMS		
NO of Hours: 4 No	Of Credits: 3	Pass	Marks 28	
Answer any FOUR Questions	Each question carrie	<u>on-A</u> 28 FIVF Marks	. /v5	-20M
Answer any <b><u>FOOR</u></b> Questions.	Each question carrie			-20111
1. Explain the Compone	nts of Database Syst	em?		
2. Explain Relational Da	ta Model?			
3. Write about Relationa	l Set Operators?			
4. Describe BCNF?				
5. Write about Special F	unctions?			
6. Explain Stored Proceed	lures?			
	Section-	B		
Answer any <u>FIVE</u> Questions. I	Each question carries	s <b>TEN</b> Marks	5X1	10=50M
7. What is File? Explain	the problems with F	file system		
8. Explain the Degree of	Data Abstraction			
9. Explain E.F.CODDs'	rules.			
10. Explain Extended Ent	ity Relationship Mo	del		
11.Explain the concept o	f Normal Forms			
12.Explain about SDLC.				
13.Explain DDL and DM	IL commands.			

14. Explain about triggers.

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.An Autonomous college within the jurisdiction of Krishna University A.P, India.(With Effect from Academic Year 2020-21)COMPUTER SCIENCECSC-501C2021-'22B.Sc.(MPCs,MCCs)

 SEMESTER – V
 PAPER – V
 Max. Marks 70
 Pass Marks 28

 Guidelines for paper setting 'DATA BASE MANAGEMENT SYSTEMS'

Unit wise weight age of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21) **COMPUTER SCIENCE CSC-501P** 2021-'22 **B.Sc.(MPCS,MCCs)** SEMESTER – V PAPER – V Max. Marks 50 Lab List DATA BASE MANAGEMENT SYSTEMS Pass Marks 25 No. of Hours per week: 2 External: 25 Internal: 25 Credits: 2 1. Creation of college database and establish relationships between tables 2. Explain various data type in Oracle. 3. Show the structure of the Emp table. 4. Show the structure of the DEPT table. 5. Explain the syntax of SELECT statement. 6. Create a query to display the name, job, hire date and employee number from emp table. 7. Create a query to display unique jobs from the emp table. 8. Create a query to display the empno as EMP#, ename as EMPLOYEE and Hire date from emp. 9. Create a query to display all the data from the EMP table. Separate each column by a comma and name the column THE\_OUTPUT. 10. Create a query to display the name and salary of employees earning more than 2850. 11. Create a query to display the name and salary for all employees whose salary is not in the range of 1500 and 2850. 12. Display the employee name, job and start date of employees hired between February 20, 1981 and May 1, 1981. Order the query in ascending order of start date 13. Display the employee name and department number of all the employees in departments 10 and 30 in alphabetical order by name. 14. List the name and salary of employees who earn more than 1500 & are in department 10 or 30. 15. Display the name, salary and commissions and sort data in descending order of salary and commission. 16. Display the name and job title of all employees who do not have a manager. 17. Display the name, job and salary for all employees whose job is Clerk or Analyst and their salary is not equal to 1000, 3000 or 5000. 18. Display the names of all employees where the third letter of their name is an 'A'. 19. Display the names of all employees who have two 'L's in their name and are in department 30 or their manager is 7782. 20. Display the name, salary and commission for all employees whose commission amount is grater than their salary increased by 10%. 21. Explain all the character functions. 22. Explain all the number functions. 23. Explain all the Date functions. 24. Explain different types of JOIN. 25. Write a query to display the name, department number and department name for all employees. 26. Create a unique listing of all jobs that are in department 30. and include the location of department 30 in the output. 27. Write a query to display the employee name, department name and location of all employees who earn a commission.

- 28. Write a query to display the name, job department number and department name for all employees who work in 'DALLAS'.
- 29. Create a query to display the name and hire date of any employee hired after employee BLAKE.

- 30. Display all employees names and hire dates along with their manager's name and hire date for all employees who were hired before their managers.
- 31. Create your own users and give permissions to you and explain GRANT and REVOKE Commands.
- A. <u>Create MOVIE database using the following tables.</u>

MOVIE:Movie no: primary key, varchar2Movie name: NOT NULL, varchar2Movie Type: varchar2Star: Varchar2

CUSTOMER: Customer No: primary key, varchar2 Customer Name: NOT NULL, varchar2 Address: NOT NULL Phone no: Number INVOICE: Invoice no: Varchar2, primary key Movie no: foreign key Customer no: foreign key

Price: NOT NULL, Number

Queries:

- 1. List the movie names that starts with 'p'
- 2. List the number of the movies those price ranges from 15000 and 20000
- 3. List the customers who have phone numbers.
- 4. List the customers who have no phone numbers.
- 5. Display the following string
- (a) A Customer "customer number" has bought the "movie number" "movie name" with "Price"
- 6. List the customers by calculating price as (price\*tax)/100 where tax=0.5 and rename the column as 'tax'.
- 7. List the movies, which are owned by 2 customers.
- 8. List the customers, who bought 2 picture names.
- 9. List the customers, who are not the range of 15000 and 20000.

B. Create Student database using the following tables.

STUDENT: Sno : primary key, numberSname : NOT NULL, varchar2 Address: Varchar2 COURSE:Sno : Foreign key.Course Name : varchar2

Queries:

- 1. Alter table by adding a column fees in table COURSE.
- 2. Alter table by modifying the address to VARCHAR2(20)
- 3. Create a view on which the students who joined in one course only.

#### PL/SQL.

- 1. Write A Pl/Sql Program To Swap Two Numbers Without Using Third Variable.
- 2. Write A Pl/Sql Program To Generate Multiplication Tables For Numbers 2,4 And 6
- **3.** Write A Pl/Sql Program To Display Sum Of Even Numbers And Sum Of Odd Numbers In The Given Range.
- 4. Write A Pl/Sql Program To Check The Given Number Is Pollinndrome Or Not.
- 5. Write A Pl/Sql Program To Display Top 10 Rows In Emp Table Based On Their Job And Salary.
- 6. Write A Procedure Update The Salary Of Employee, Who is Not Getting Commission by 10%. Reference Books:
- 1. Oracle Pl/Sql By Example. Benjamin Rosenzweig, Elena Silvestrova, Pearsoneducation 3rd Edition
- 2. Sql& Pl/Sql For Oracle 10g, Black Book, Dr.P.S. Deshpande

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.							
An Autonomous college within the jurisdiction of Krishna University A.P, India.							
(With Effect from Academic Year 2020-21)							
COMPUTER SCIENCECSC-502C2021-'22B.Sc.(MPCs,MCCs)							
SEMESTER – V PAPER – VI			Max. Marks 70				
<u>Syllabus</u> :	<u>yllabus</u> : SOFTWARE ENGINEERING						
NO of Hours: 4		Pass Marks 28					

#### **Course Objectives**

The Objective of the course is to assist the student in understanding the basic theory of software engineering, and to apply these basic theoretical principles to a group software development project.

UNIT-I: Introduction to Software Engineering & Process

**The Evolving Role of Software**– Software - The Changing Nature of Software, Software Myths, Legacy Software.

*Process*: Software Engineering-A Layered Technology - A Process Framework - The Capability Maturity Model Integration (CMMI) - Process Patterns, Process Assessments - Personal Software Process(PSP), Team Software Process (TSP).

#### **Unit-II: Process Models**

The Waterfall Models - Increment Process Models: The Increment Model, The RAD Model - Evolutionary Process Models: Prototyping, The Spiral Model, The Concurrent Development Model.

#### **Unit-III: Requirements Engineering**

**Requirements Engineering Tasks** - Initiating The Requirements Engineering Process - Eliciting Requirements: Collaborative Requirements Gathering, Quality Function Deployment, User Scenarios, Elicitation Work Products - Negotiating Requirements - Validating Requirements.

#### **Unit-IV: Design Engineering**

Design Process And Design Quality - Design Concepts - The Design Model: Data Design Elements, Architectural Design Elements, Interface Design Elements, Component-Level Design Elements, Deployment -Level Design Elements.

#### **Unit-V:SoftwareQuality:**

Quality and Quality Concepts, Software Quality Assurance (SQA), Software Reviews, Formal Technical Reviews, Formal Approaches to SQA and SSQA, Software Reliability, The ISO 9000 Quality Standards, The SQA Plan.

#### **Prescribed Text Book:**

1. Software Engineering – A Practitioner's Approach, Sixth Edition - Roger S Pressman, TATA McGrawHill: Chapters: 1,2,3,7,8 and 9)

#### **Reference Books:**

1. Software Engineering Principles and Practice by Deepak Jain Oxford University Press

2. Sommerville, "Software Engineering", Eighth Edition, Pearson Education, 2007

**Student Activity:** Visit any financial organization nearby and prepare requirement analysis report 2. Visit any industrial organization and prepare risk chart.

#### 10Hrs

## 12Hrs

# 12Hrs

12Hrs

14 Hrs

COMPUTER SCIENCE	CSC-502C	2021-'22	B.Sc.(MPCs,MCCs)
ESTER – V	PAPER – VI		Max. Marks 70
PaperSOFTNO of Hours: 4	WARE ENGINE No Of Credits:	CERING 3 Pa	ss Marks 28
	Section	<u>on – A</u>	
any <u>FOUR</u> Questions. Each q	uestion carries <b>F</b>	<b>VE</b> Marks	4x5=
1. Write about Software L	ayered Technolog	y?	
2. Explain about Process I	Framework?		
3. Explain about RAD Mo	odel?		
4. Explain Validating Req	uirements		
5. Explain about Modulari	ity?		
6. Write about Software R	eliability?		
	Section	<u>on – B</u>	
any <b><u>FIVE</u></b> Questions. Each qu	estion carries <b>TE</b>	N Marks	5X10
7. Explain about CMMI	?		
8. Explain about Softwa	are Myths?		
9. Explain about Increm	ental Model?		
10. Explain about Spiral	Model		
11. Explain about Requir	ements Engineerir	ng Tasks?	
12. Write about design co	oncepts in design e	ngineering?	
13. Explain about Quality	and Quality Cond	cepts?	
14 Write about SSOA?			

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

COMPUTER SCIENCE	CSC-502C	2021-'22	B.Sc.(MPCs,MCCs)
SEMESTER – V P.	APER – VI	Max. Marks	s 70 Pass Marks 28
Guidelines for p	aper setting 'SOFT	WARE ENG	NEERING'

#### Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

	COMPUTER SCIENC	E CSC-502C	2021-'22	B.Sc.(MPCS,MCCs)	
SEMESTER – V		PAPE	$\mathbf{CR} - \mathbf{VI}$	Max. Marks 50	
Lab List SC		SOFTWARE ENG	NEERING	Pass Marks 25	
No.	of Hours per week: 2	External: 25	Internal: 25	Credits: 2	

#### A. <u>ATM</u>

1. Objective of an ATM System. 2. Use-case Diagram of an ATM System 3. Class Diagram of an ATM System 4. Sequence Diagram of an ATM System 5. Activity Diagram of an ATM System 6. State Diagram of an ATM System 7. Deployment Diagram of an ATM System

#### **B.** Library management System

1. Objective of Library management System.2. Use-case Diagram of Library management

3. Class Diagram of Library management System4. Sequence Diagram of Library management 5. Activity Diagram of Library management System 6. State Diagram of Library management 7. Deployment Diagram of Library management System

#### C. Barcode Reader

1. Objective of Barcode Reader 2. Use-case Diagram of Barcode Reader 3. Class Diagram of Barcode Reader 4. Sequence Diagram of Barcode Reader 5. Activity Diagram of Barcode Reader 6. State Diagram of Barcode Reader 7. Deployment Diagram of Barcode Reader

#### **D** .Safe Home System

1. Objective of Safe Home System.2. Use-case Diagram of Safe Home System3. Class Diagram of Safe Home System4. Sequence Diagram of Safe Home System5. Activity Diagram of Safe Home System6. State Diagram of Safe Home System7. Deployment Diagram of Safe Home System

#### E. Online Book Store System

1. Objective of Online Book Store System 2. Use-case Diagram of Online Book Store System3. Class Diagram of Online Book Store System 4. Sequence Diagram of Online Book Store 5. Activity Diagram of Online Book Store System 6. State Diagram of Online Book Store System 7. Deployment Diagram of Online Book Store System

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P. India.

			(With I	Effect fr	om Acade	mic Year2020	-21)	
	COMI	PUTER SC	CIENCE	CCS	C-505C	2021-22	B. Com (CA)	
SEMESTER – V PAPER – V Max. Marks 70 Pass Marks 28								
Syllabus	5	OBJECT	ORIENT	TED PR	OGRAMN	MING USING	JAVA	
Total H	rs: 60		NO. (	Of. Hou	rs: 5		Credits: 3	

#### **UNIT-I**

Fundamentals of Object - Oriented Programming: Introduction, Object Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Applications of OOP, Java features:

#### UNIT-II

Overview of Java Language: Introduction, Simple Java program structure, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments. Constants, Variables & Data Types: Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Type casting, Getting Value of Variables, Operators. **UNIT-III** 12Hrs

Decision Making & Branching: Introduction, Decision making with if statement, Simple if statement, if-Else statement, Nesting of if-else statements, the else if ladder, the switch statement, the conditional operator. **Looping**: Introduction, while statement, do-while statement, for statement, Jumps in loops. **UNIT-IV** 

Classes, Objects & Methods: Introduction, defining a class, adding variables, adding methods, creating objects, Accessing class members, Constructors, Method overloading, Method Overriding, Static members, Nesting of methods;

#### **UNIT-V**

Inheritance: Extending a Class, Overriding Methods, Final Variables and Methods, Final Classes, Abstract Methods and Classes; Arrays, Strings And Vectors: Arrays, One-dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Vectors, Wrapper classes; Interfaces: Multiple Inheritance: Introduction, Defining interfaces, Extending interfaces, Implementing interfaces, Assessing interface variables;

#### **Prescribed Text Book:**

1. E. Balaguruswamy, Programming with JAVA, A primer, 3e, TATA McGraw-Hill Company. **Reference Books** 

- 1. Programming In Java By Sachin Malhotra And Saurabh Choudhary From Oxford University Press
- 2. Object Oriented Programming Through Java by P. Radha Krishna, Universities Press
- 3. John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series,
- 4. Deitel&Deitel. Java TM: How to Program, PHI (2007)
- 5. Java Programming: From Problem Analysis to Program Design- D.S Mallik

14Hrs

## 12Hrs

#### 10Hrs

#### 12 Hrs

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college with in the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year2020-21) **COMPUTER SCIENCE** CCSC-505C 2021-22 B. Com (CA) SEMESTER – V PAPER – V Max. Marks 70 Pass Marks 28 Svllabus: OBJECT ORIENTED PROGRAMMING USING JAVA **Total Hrs: 60** NO. Of. Hours: 4 Credits: 3 Section- A Answer <u>FOUR</u> Questions. Each Question carries FIVE Marks. 4\*5=20M 1. What are the Applications of OOP? 2. What is a variable? Explain its rules? 3. Explain different data types in java? 4. Write about switch statement? 5. Explain about Constructors? 6. Differences between arrays and vectors? Section-B Answer FIVE the Questions. Each Question carries TEN Marks 5\*10=50M 7. Explain the Concepts of Object Oriented Programming? 8. Explain java Features? 9. Explain the structure of java program? 10. Explain different types of Operators in Java with Examples? 11. Explain about Decision Making Statements with examples? 12. Explain Looping statements with example?

- 13. Explain Method overloading with an example program?
- 14. Explain about inheritance?

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college with in the jurisdiction of Krishna University A.P, India.

		(With I	Effect from Acade	mic Year202(	)-21)	
	COMPUT	ER SCIENCE	CCSC-505C	2021-22	B. Com (CA)	
SEME	CSTER – V	PAPER – V	Max. Mark	s 70	Pass Marks 28	
Syllabu	S	OBJI	ECT ORIENTED	PROGRAM	AING USING JAVA	
Total H	rs: 60	I	NO. Of. Hours: 4		Credits: 3	

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	1	2
Unit-2	2	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

	AG & SG SIDDHA	RTHA COLLEGE	OF ARTS AN	D SCIENCES - VUY	YUR	
	(Wit	h Effect from Acad	emic Year202	<b>0-21</b> )		
	COMPUTER SCIENCI	E CCSC-505C	2021-22	B. Com (CA)		
SEM	ESTER – V			PAPER – V		
Lab Li	st: OBJECT OR	ENTED PROGRA	MMING USI	NG JAVA Pass Mark	is 25	
No. of l	Hours per week: 2 Ext	ernal: 25	Internal: 25	Credits: 2		
1.	Write a program to perform	various String Operation	ations			
2.	Write a program to print the	given number is Ar	mstrong or not	2		
3.	Prompt for the cost and selli	ng price of an article	e and display th	e profit (or) loss		
4.	Write a program to print the	numbers given by c	ommand line a	rguments		
5.	Write a program on class an	d object in java				
6.	Illustrate the method overric	ling in JAVA				
7.	Write a program to find the	Simple Interest using	g Multilevel Inl	neritance		
8.	Write a program to display	matrix multiplication	l.			
9.	Write a program on interface in java					
10.	Write a program on inherita	nce				

	AG & SC An Autonomo	G SIDDHART ous college wit (With Et	THA COLLEGE O thin the jurisdiction fect from Academi	F ARTS AN 1 of Krishna c Year 2020	ND SCIENCES - VUYYURU. A University A.P, India. D-21)	
	COMPUTER	SCIENCE	CCSC 506C	2021-'22	B.Com.(C.A.)	
SEMI	ESTER – V	PAPER -	- VI		Max. Marks 70	
Svllabu	s :	DATA	A BASE MANAGE	MENT SYS	STEMS	
NO Of ]	Hours: 5	No Of	Credits: 3		Pass Marks 28	
Course	<b>Objective:</b> De	sign & develor	o database for large	volumes & v	varieties of data with optimized	
data processing techniques						
		-5. T. 4 1			1011	
Unit $-1$	1: Database Syst	ems Introduc	tion	hutha datah	12Hrs	
Databas	se Systems: Introc		Dase and DBMS, w		ase is important,	
Historic	cal Roots: Files	and File Syst	tems, Problems wit	in File Syste	em, Data Management, Database	
Systems	S. Data Models:	I ne importa	nce of Data mode	is, Data Mo	Dael Basic Building Blocks, The	
	on of Data Mode.	15. tahasa 8. Dat	Modelling		12 Um	
The Pel	ational Databasa	Model: A loo	ical view of Data I	Zove Integrit	12 ms	
Indexes	Codd's relations	<i>Model</i> . A log	s Entity Relationsh	in Model: Th	Prove PR Model	
A dvance	, Couu's Iciationa ad Data Modellin	a. The Extend	ed Entity Relationsh	in Model F	ntity clustering	
Init_III	eu Duiu Moueinn I• Normalization	and Databas	a Design		14 Hrs	
Normali	ization of databa	sa tablas: Dat	e Design abase Tables and No	ormalization	The need for Normalization. The	
Normali	ization Process F	igh level Nor	mal Forms Normali	zation and de	atabase design de normalization,	
Unit-IV	• Structured Ou	erv Languag	niai i ornis, riornian		12 Hrs	
Introduc	ction to SOL: I	Data Definitio	on Commands. Day	ta Manipula	tion Commands Select queries.	
Advance	ed Data Definitio	n Commands.	Advanced Select ou	eries. Virtua	I Tables, SOL Join Operators.	
Unit-V:	Procedural SO	L		·····	10 Hrs	
Introduc	ction to PL/SOL :	Triggers, Stor	red Procedures, Pl/ S	SOL Stored H	Functions	
Prescril	bed Text Book:		,			
1. 1	Peter Rob, Carl	os Coronel,	Database Systems	Design, Im	plementation and Management,	
S	Seventh Edition,	Thomson (20	007).		• 0 /	
Referen	nce Books:					
2Eli	masri / Navathe,	Fundamentals	of Database System	s, Fifth Editi	ion, Pearson Addison Wesley	
3. (	C.J.Date, A.Kan	nan, S.Swam	ynathan, An Introd	luction to I	Database Systems, Eight edition,	
I	Pearson Education	n (2006).				
Student	t Activity:					
1. Creat	e your college da	tabase for plac	ement purpose.			
2. Create faculty database of your college with their academic performance scores						

	COMPUTER SCIE	NCE	CCSC 506C	2021-'22	B.Com.(C.A.)	
MES	STER – V P	APER –	VI	Max	x. Marks 70	
<u>lel Pa</u> Of H	<u>aper</u> ours: 5	DATA No	BASE MANAGE Of Credits: 3	MENT SYS Pas	TEMS s Marks 28	
		~				
Ans	wer any <b>FOUR</b> Quest	<u>Sec</u> tions. Eac	ction-A h question carries	FIVE Marks	5	4x5=20N
	1. Explain the Com	ponents (	of Database Syster	n?		
	2. Explain Entity R	Relationsh	ip Model?			
	3. Write about Rela	ational Se	t Operators?			
	4. Describe BCNF	?				
	5. Write about Spe	cial Func	tions?			
	6. Explain Stored F	Procedure	s?			
Ans	wer any <u>FIVE</u> Questi	<u>Sec</u> ons. Each	etion-B a question carries T	<b>EN</b> Marks		5X10=5
	7. What is File? Ex	plain the	problems with File	e system?		
	8. Explain any thre	e differer	t Data Models?			
	9. Explain E.F. CO	DDs' rul	es?			
	10. Explain Extende	d Entity l	Relationship Mode	1?		
	11. Explain the conc	cept of No	ormal Forms?			
	12. Explain different	t join ope	rators?			
	13. Explain DDL an	d DML c	ommands?			
	14. Explain about tri	iggers?				

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

	COMPUTER	R SCIENCE	(	CCSC 506C	2021-'22	B.Com.(C.A.)
SEME	STER – V	PAPER	– VI	Max. Marks 70	Pass	Marks 28

#### Guidelines for paper setting 'DATA BASE MANAGEMENT SYSTEMS'

Unit wise weightage of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	1
Unit-4	1	2
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within he jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-21)

	COMPUTER SCIENCE	CCSC-506P	2021-'22	B. COM(CA)	
SEM	IESTER – V	PAPER – VI	Max	. Marks 50	
Lab	List DATA BASE MANA(	GEMENT SYSTEM	S Pass	Marks 25	
No. c	of Hours per week: 2	External: 25	Internal: 2	5	Credits: 2

- 1. Creation of college database and establish relationships between tables
- 2. Explain various data type in Oracle.
- 3. Show the structure of the Emp table.
- 4. Show the structure of the DEPT table.
- 5. Explain the syntax of SELECT statement.
- 6. Create a query to display the name, job, hiredate and employee number from emp table.
- 7. Create a query to display unique jobs from the emp table.
- 8. Create a query to display the empno as EMP#, ename as EMPLOYEE and Hire\_date from emp.
- 9. Create a query to display all the data from the EMP table. Separate each column by a comma and name the column THE\_OUTPUT.
- 10. Create a query to display the name and salary of employees earning more than 2850.
- 11. Create a query to display the name and salary for all employees whose salary is not in the range of 1500 and 2850.
- 12. Display the employee name, job and start date of employees hired between February 20,1981 and May 1, 1981. Order the query in ascending order of start date
- 13. Display the employee name and department number of all the employees in departments 10 and 30 in alphabetical order by name.
- 14. List the name and salary of employees who earn more than 1500 & are in department 10 or 30.
- 15. Display the name, salary and commissions and sort data in descending order of salary and commission.
- 16. Display the name and job title of all employees who do not have a manager.
- 17. Display the name, job and salary for all employees whose job is Clerk or Analyst and their salary is not equal to 1000, 3000 or 5000.
- 18. Display the names of all employees where the third letter of their name is an 'A'.
- 19. Display the names of all employees who have two 'L's in their name and are in department 30 or their manager is 7782.
- 20. Display the name, salary and commission for all employees whose commission amount is grater than their salary increased by 10%.
- 21. Explain all the character functions.
- 22. Explain all the number functions.
- 23. Explain all the Date functions.

Create Student database using the following tables.

STUDENT: Sno: primary key, numberSname : NOT NULL, varchar2 Address: Varchar2

COURSE:Sno : Foreign key.Course Name : varchar2

Queries:

- 1. Alter table by adding a column fees in table COURSE.
- 2. Alter table by modifying the address to VARCHAR2(20)
- 3. Create a view on which the students who joined in one course only.

#### PL/SQL.

- 1. Write A Pl/Sql Program To Swap Two Numbers Without Using Third Variable.
- 2. Write A Pl/Sql Program To Generate Multiplication Tables For Numbers 2,4 And 6
- **3.** Write A Pl/Sql Program To Display Sum Of Even Numbers And Sum Of Odd Numbers In The Given Range.
- 4. Write A Pl/Sql Program To Check The Given Number Is Pollinndrome Or Not.
- **5.** Write A Pl/Sql Program To Display Top 10 Rows In Emp Table Based On Their Job And Salary. **Reference Books:** 
  - 1. Oracle Pl/Sql By Example. Benjamin Rosenzweig, Elena Silvestrova, Pearsoneducation 3rd Edition
  - 2. Sql& Pl/Sql For Oracle 10g, Black Book, Dr.P.S. Deshpande

A	G & SG SIDDHARTHA An Autonomous colleg	A COLLEGE OF AR	TS AND SCI	ENCES - VUYYURU. a University A.P, Indi	a.
_	(Wi	th Effect from Acade	mic Year 202	0-21)	
	COMPUTER SCIENC	E CCSC-507C	2021-'22	B.Com.(CA)	
SEMESTER – V		PAPER – VII	PAPER – VII		
<u>Syllabus</u>	<u> </u>	EB TECHNOLOGI	ES		
NO Of Hours: 5		No of Credits: 3		Pass Marks 28	
Unit -I	Introduction to XHTM	L:			13H

#### Unit -I Introduction to XHTML:

Introduction to HTML, Basic html, Document body text, Hyperlinks, Lists, Tables, Images, Frames, Forms and XHTML.

#### Unit- II: CSS:

Cascading Style Sheets: Introduction, Defining your own styles, properties and values in styles, Formatting blocks of information, Layers.

Java Script: java Script, the basics, Variables, String Manipulations, Mathematical functions, Statements, Operators.

#### Unit -III: Objects in Java Script & Dynamic HTML with Java Script

Objects in Java Script: Data and objects in java script, Regular expressions, Exception Handling, built in objects, Events.

Dynamic HTML with Java Script: Data validation, Rollover buttons, Moving images.

#### Unit –IV: XML Defining Data for Web Applications

XML: Introduction to XML, Basic XML, document type definition, XML Schema, Document object model, Using XML parser.

Unit -V:JSP:

JSP Lifecycle, Basic Syntax, EL (Expression Language), EL Syntax, Using EL Variables

#### **Prescribed Books:**

#### 1. Chris Bates, Web Programming Building Internet Application, Second Edition, Wiley

2.Head First Servlets and JSP 2<sup>nd</sup> Edition, Bryan Basham, Kathy Sierra

3.Uttam Kumar Roy, Web Technologies from Oxford University Press

#### 12Hrs

# **10Hrs**

12Hrs

13Hrs

	COMPUTER SCIEN	CE	CCSC-507C	2021-'22	B.Sc.(MPCs)
SEMI	ESTER – V PA	PER –	VII		Max. Marks 70
Model	<u>Paper</u>	WEB T	ECHNOLOGIE	ES	
No of C	redits: 3				Pass Marks 28
<b>.</b>	EQUID Orestians Each	0	Section-	<u>A</u>	5 X 4 20
Answer	<b><u>FOUR</u></b> Questions. Each	Questic	on carries <b>FIVE</b>	Marks.	5 X 4=20
1. V	Write about structure of	HTML	Document with a	in example?	
2. I	Explain about lists in HT	ML?			
3. V	Write about java script st	atement	s?		
4. V	Write about Rollover but	tons?			
5. I	Describe XML Elements	?			
6. V	Write the syntax of EL ar	nd EL v	ariables?		
			Section-B		
Answer	FIVE Questions. Each Q	Questior	n carries <b>TEN</b> Ma	arks.	5 X 10=50
7 1	Explain about hyper links	s? Write	about how to lir	k another nage	≥s
8.1	What is Form? Explain al	bout for	rms with example	s	
9. 1	What is CSS? How to de	sign Cas	scading style she	et	
10. I	Explain about Mathemati	ical Fun	ctions		
11. I	Explain about Regular Ex	xpressio	ns		
12. V	Write about Data validati	ions in i	DHTML		
13. I	Explain about Document	Object	Model		
14. I	Explain about JSP Lifecy	cle with	n neat diagram		
			C		

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

	COMPUTER SC	IENCE	CCSC-507C	l ,	2021-'22	B.COM(CA)	
SEME	STER – V	PAPER	– VII	Max	. Marks 70	Pass Marks 28	

Guidelines for paper setting 'WEB TECHNOLOGIES'

#### Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P. India. (With Effect from Academic Year 2021-22) **COMPUTER SCIENCE CSC-301C** 2021-'22 **B.Sc.(MPCs,MCCs)** SEMESTER –III PAPER – III Max. Marks 70 DATA BASE MANAGEMENT SYSTEMS Model Paper:

NO of Hours: 4

# No Of Credits: 3

#### **Course Objective:**

The objective of the course is to introduce the design and development of databases with special emphasis on relational databases.

#### UNIT I

Overview of Database Management System: Introduction to data, information, database, database management systems, file-based system, Drawbacks of file-Based System, database approach, Classification of Database Management Systems, advantages of database approach, Various Data Models, Components of Database Management System, three schema architecture of data base, costs and risks of database approach.

#### **UNIT II**

Entity-Relationship Model: Introduction, the building blocks of an entity relationship diagram, classification of entity sets, attribute classification, relationship degree, relationship classification, reducing ER diagram to tables, enhanced entity-relationship model (EER model), generalization and specialization, IS A relationship and attribute inheritance, multiple inheritance, constraints on specialization and generalization, advantages of ER modelling.

#### **UNIT III**

Relational Model: Introduction, CODD Rules, relational data model, concept of key, relational integrity, relational algebra, relational algebra operations, advantages of relational algebra, limitations of relational algebra, relational calculus, tuple relational calculus, domain relational Calculus (DRC), Functional dependencies and normal forms upto 3rd normal form. 12Hrs

#### **UNIT IV**

Structured Query Language: Introduction, History of SQL Standard, Commands in SQL, Data Types in SQL, Data Definition Language, Selection Operation, Projection Operation, Aggregate functions, Data Manipulation Language, Table Modification Commands, Join Operation, Set Operations, View, Sub Ouery.

#### UNIT V

12Hrs PL/SQL: Introduction, Shortcomings of SQL, Structure of PL/SQL, PL/SQL Language Elements, Data Types, Operators Precedence, Control Structure, Steps to Create a PL/SQL, Program, Iterative Control, Procedure, Function, Database Triggers, Types of Triggers.

#### BOOKS:

1. Database System Concepts by Abraham Silberschatz, Henry Korth, and S. Sudarshan, McGrawhill

- 2. Database Management Systems by Raghu Ramakrishnan, McGrawhill
- 3. Principles of Database Systems by J. D. Ullman
- 4. Fundamentals of Database Systems by R. Elmasri and S. Navathe

5. SOL: The Ultimate Beginners Guide by Steve Tale.

#### **RECOMMENDED CO-CURRICULAR ACTIVITIES:**

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)

2. Student seminars (on topics of the syllabus and related aspects (individual activity))

3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))

#### 12Hrs

12Hrs

## Pass Marks 28

#### 12Hrs

4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity

#### **B.** General

- 1. Group Discussion
- 2. Try to solve MCQ's available online.
- 3. Others

#### **RECOMMENDED CONTINUOUS ASSESSMENT METHODS:**

Some of the following suggested assessment methodologies could be adopted;

- 1. The oral and written examinations (Scheduled and surprise tests),
- 2. Closed-book and open-book tests,
- 3. Practical assignments and laboratory reports,
- 4. Observation of practical skills,
- 5. Individual and group project reports like Create your college database for placement purpose.
- 6. Efficient delivery using seminar presentations,
- 7. Viva voce interviews.
- 8. Computerized adaptive testing, literature surveys and evaluations,
- 9. Peers and self-assessment, outputs form individual and collaborative work
|       | (With I                             | Effect from Acade                   | mic Year 202             | 1-22)            |
|-------|-------------------------------------|-------------------------------------|--------------------------|------------------|
|       | COMPUTER SCIENCE                    | CSC-301C                            | 2021-'22                 | B.Sc.(MPCs,MCCs) |
|       | SEMESTER – III                      | PAPER – III                         | Max                      | . Marks 70       |
| [odel | Paper: : DATA BASE MANA             | AGEMENT SYST                        | EMS                      |                  |
|       | NO of Hours: 4 No O                 | f Credits: 3                        |                          | Pass Marks 28    |
| nswei | r any <u>FOUR Q</u> uestions. Each  | <u>Secti</u><br>question carries Fi | <u>on-A</u><br>IVE Marks | 4x5=20M          |
| 1.    | Explain the Components of D         | atabase System?                     |                          |                  |
| 2.    | Explain about advantages of         | database approach?                  | ,                        |                  |
| 3.    | Explain building blocks of an       | entity relationship                 | diagram?                 |                  |
| 4.    | Describe BCNF?                      |                                     |                          |                  |
| 5.    | Write about Special Functions       | \$?                                 |                          |                  |
| 6.    | Explain Stored Procedures?          |                                     |                          |                  |
|       |                                     | Section-                            | <u>B</u>                 |                  |
| nswei | r any <u>FIVE</u> Questions. Each q | uestion carries TE                  | N Marks                  | 5X10=50M         |
| 7.    | What is File? Explain the prol      | olems with File syst                | tem                      |                  |
| 8.    | Explain the Degree of Data A        | bstraction.                         |                          |                  |
| 9.    | Explain E.F.CODDs' rules.           |                                     |                          |                  |
| 10.   | . Explain Extended Entity Rela      | tionship Model.                     |                          |                  |
| 11.   | . Explain the concept of Norma      | l Forms.                            |                          |                  |
| 12.   | . Explain about SDLC.               |                                     |                          |                  |
| 13.   | . Explain DDL and DML comm          | nands.                              |                          |                  |
| 14.   | . Explain about triggers.           |                                     |                          |                  |

## An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22)

COMPUTER SO	COMPUTER SCIENCE		2021-'22	B.Sc.(MPCs,MCCs)	
SEMESTER	-III PA	PER –III Max.	Marks 70	Pass Marks 28	
Guidelines	for paper se	etting 'DATA BAS	E MANAGEN	<u>IENT SYSTEMS'</u>	
	Unit wise weight age of Marks				
		Section-A		Section-B	
		(Short answer ques	tions)	(essay questions)	
Unit-1	Unit-1			2	
Unit-2		1		2	
Unit-3		1		2	

1

1

1

1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B

Unit-4

Unit-5

• The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22)

		In Effect from Mead	tenne i cui 202	1 22)
	COMPUTER SCIENCE	CSC-301P	2021-'22	B.Sc.(MPCS,MCCs)
	SEMESTER – III		PAPER – III	Max. Marks 50
Lab Lis No. of H	t DATA BASE MANA lours per week: 2	GEMENT SYSTEN External: 25	IS Internal: 25	Pass Marks 25 5 Credits: 2
1. Draw	ER diagram for hospital admin	nistration		
2. Creati	on of college database and esta	ablish relationships b	between tables	
3. Relati <b>Relation</b> <b>Questio</b> 1. Create	onal database schema of a com nal Database Schema - COM ns to be performed on above e above tables with relevant <i>Pr</i>	npany is given in the PANY schema imary Key, Foreign	following figure	e. constraints
2. Popul	ate the tables with data			
3. Displa	ay all the details of all employe	es working in the co	mpany.	
4. Displa	ay ssn, lname, fname, address	of employees who w	vork in departme	ent no 7.
5. Retrie	we the <i>Birthdate and Address</i>	of the employee who	ose name is 'Fra	nklin T. Wong'
6. Retrie	we the name and salary of ever	y employee		
7. Retrie	we all distinct salary values			
8. Retrie	we all employee names whose	address is in 'Bellair	e'	
9. Retrie	ve all employees who were bo	rn during the 1950s		
10. Retr	ieve all employees in departme	ent 5 whose salary is	between 50,000	and 60,000(inclusive)
11. Retr	ieve the names of all employee	s who do not have su	upervisors	
12. Retr	ieve SSN and department name	e for all employees		
13. Retr	ieve the name and address of a	ll employees who we	ork for the 'Rese	arch' department
14. For e departm	every project located in 'Staffor ent manager's last name, addre	rd', list the project nu ss, and birth date.	umber, the contro	olling department number, and the
15. For e	each employee, retrieve the em	ployee's name, and t	he name of his o	or her immediate supervisor.
16. Retr	ieve all combinations of Emplo	oyee Name and Depa	artment Name	
17. Mak either as	e a list of all project numbers f a worker or as a manager of th	for projects that involute the time of time of the time of time of the time of tim	lve an employee ontrols the proje	whose last name is 'Narayan' ct.

18. Increase the salary of all employees working on the 'ProductX' project by 15%. Retrieve employee name and increased salary of these employees.

19. Retrieve a list of employees and the project name each works in, ordered by the employee's department, and within each department ordered alphabetically by employee first name.

20. Select the names of employees whose salary does not match with salary of any employee in department 10.

21. Retrieve the employee numbers of all employees who work on project located in Bellaire, Houston, or Stafford.

22. Find the sum of the salaries of all employees, the maximum salary, the minimum salary, and the average salary. Display with proper headings.

23. Find the sum of the salaries and number of employees of all employees of the 'Marketing' department, as well as the maximum salary, the minimum salary, and the average salary in this department.24. Select the names of employees whose salary is greater than the average salary of all employees in department 10.

25. Delete all dependents of employee whose ssn is '123456789'.

26. Perform a query using alter command to drop/add field and a constraint in Employee table.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22)

(				
COMPUTER SCIENCE	E CCSC-301C	2021-'22	B.com(CA)	
SEMESTER – III	PAPER – II	I	Max. Marks 7	
	Syllabus: Program	nming in C		
NO of Hours: 4	No Of Credits	: 3	Pass Marks 28	

UNIT-I: General Fundamentals& Programming Languages

General Fundamentals: Introduction to computers: Block diagram of a computer, characteristics and limitations of computers, applications of computers, types of computers, computer generations.

Introduction to Algorithms and Programming Languages: Algorithm – Key features of Algorithms, Flow Charts, **Programming Languages** – Generations of Programming Languages – Structured Programming Language- Design and Implementation of Correct, Efficient and MaintainablePrograms.

#### **UNIT- II: Introduction To C & Decision Making control Statements**

Introduction to C: Introduction – Structure of C Program – Writing the first C Program – File used in C Program - Compiling and Executing C Programs - Using Comment, Keywords - Identifiers - Basic Data Types in C – Variables – Constants – I/O Statements in C-Operators in C- Programming Examples. Decision Control and Looping Statements: Introduction to Decision Control Statements- Conditional Branching Statements – Iterative Statements – Nested Loops – Break and Continue Statement – Goto Statement.

#### **UNIT III: Arrays**

Arrays: Introduction – Declaration of Arrays – Accessing elements of the Array – Storing Values in Array– Operations on Arrays – one dimensional, two dimensional and multi dimensional arrays, character handling and strings.

#### **UNIT-IV: Functions & Structures**

**Functions:** Introduction – using functions – Function declaration/ prototype – Function definition – function call – return statement – Passing parameters – Scope of variables – Storage Classes – Recursive functions.

Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Arrays of Structures - Structures and Functions- Union - Arrays of Unions Variables - Unions inside Structures -Enumerated DataTypes.

#### **UNIT-V:Pointes&Files**

Pointers: Understanding Computer Memory - Introduction to Pointers - declaring Pointer Variables -Pointer Expressions and Pointer Arithmetic - Null Pointers -- Memory Allocation in C Programs -Memory Usage – Dynamic Memory Allocation – Drawbacks of Pointers

Files: Introduction to Files – Using Files in C – Reading Data from Files – Writing Data to Files – Detecting the End-of-file – Error Handling during File Operations – Accepting Command Line Arguments.

#### BOOKS

- 1. E Balagurusamy Programming in ANSIC Tata McGraw-Hillpublications.
- 2. Brain W Kernighan and Dennis M Ritchie The 'C' Programming language" -Pearsonpublications.
- 3. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publications.
- 4. YashavantKanetkar Let Us 'C' BPBPublications.

#### 10 Hrs

#### 13Hrs

#### 15Hrs

### 10Hrs

12Hrs

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-'21)

COMPUTER SCIENCE	CCSC-301C	2021-'22	B.COM(CA)
SEMESTER – III PAPER – III N	Max. Marks 70	Pass Mark	s 28

<u>Title :</u>Programming in 'C' NO. Of. Hours: 4Credits:3

#### Section- A

#### Answer <u>FOUR</u> Questions. Each Question carries FOUR Marks. 4\*5=20M

- 1. Explain different types of programming languages?
- 2. Explain about Data types in C?
- 3. Write about Break and Continue Statement?
- 4. Explain one dimensional array with example?
- 5. Explain Storage Classes in C?
- 6. Explain dynamic memory allocation?

#### Section-B

#### Answer <u>FIVE</u> the Questions. Each Question carries EIGHT Marks 5\*10=50M

- 7. Draw and Explain Block Diagram of Computer?
- 8. Explain about Algorithm and Flowchart with Examples?
- 9. Explain decision making Looping statements with examples?
- 10. Explain Structure of C Program with Example?
- 11. Write about two dimension arrays? Give an example program?
- 12. Write Passing Parameters Techniques in Functions?
- 13. Difference between structures and unions?
- 14. What is File? Explain different File Modes?

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-'22)

(With Effect from Academic Ye				rear	2021-*22)	
	COMPUTER SCIENC	СЕ	CSC-301C	2021-'2	22	B.com(CA)
SEMESTER – III		PAPER –III			Max. Marks 70	
Guidelines for paper setting <u>'Programming</u> in 'C''					in 'C''	
Unit wise weight age of Marks			Section-A		Section-B	
		(Short answer questions)		(essay questions)		
Unit-I		2			2	
Unit-II		1			2	
Unit-III		1			2	
Unit-IV		1			1	
Unit -V			1			1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22)

	COMPUTER SCIENCE	CCSC-301P	2021-'22	B.Com.(CA)
_	SEMESTER – III		PAPER – III	Max. Marks 50
Lab List	Programming in 'C	,		Pass Marks 20
No. of H	ours per week: 2	External: 25	Internal: 25	Credits: 2

- 1. 1 Write C programs for
  - a. Fibonacci Series
  - b. Prime number
  - c. Palindrome number
  - d. Armstrong number.

2. Write a 'C' program for multiplication of two matrices

3. Write a 'C' program to implement string functions

- 4. Write a 'C' program to swap numbers
- 5. Write a 'C' program to calculate factorial using recursion
- 6. Write a 'C' program to perform addition of two complex numbers using constructor
- 7. Write a program to find the largest of two given numbers in two different classesusing friend function
- 8. Program to add two matrices using dynamic contructor
- 9. Implement a class string containing the following functions:
  - a. Overload + operator to carry out the concatenation of strings.
  - b. Overload == operator to carry out the comparison of strings.
- 10. Program to implement inheritance.

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P., India.

(With Effect from Academic Year 2021-22)

Semester I	Course Code	Course Title	Credits	Periods
B.Sc. (MPCS/ MCCS / MSCS)	CSCT11B	Problem Solving In C	4	60

#### **Course Objectives:**

This course aims to provide exposure to problem-solving through programming and introduce the concepts of the C Programming language.

#### Course Learning Outcomes

Course Learning	Course Learning Outcomes.				
Course	Upon successful completion of the course, a student will be able to:	Program			
<b>Outcome No</b>		Outcome No.			
CO1	Understand the evolution & functionality of Digital Computers and develop	PO1, PO7, PSO1,			
	an algorithm for solving a given problem.	PSO4			
CO2	Understand tokens and control structures in C.	PO1, PO7, PSO1,			
		PSO4			
CO3	Understand arrays and strings and implement them.	PO1, PO7, PSO1,			
		PSO4			
CO4	Understand the right way of using functions, pointers, structures and unions	PO1, PO7, PSO1,			
	in C	PSO4			
CO5	Develop and test programs written in C files	PO1, PO7, PSO1,			
		PSO4			

#### **UNIT I**

12 periods

General Fundamentals: Introduction to computers: Block diagram of a computer, characteristics and limitations of computers, applications of computers, types of computers, computer generations.

Introduction to Algorithms and Programming Languages: Algorithm – Key features of Algorithms, Flow Charts, Programming Languages – Generations of Programming Languages – Structured Programming Language-Design and Implementation of Correct, Efficient and Maintainable Programs.

#### UNIT II

#### 12 periods

Introduction to C: Introduction – Structure of C Program – Writing the first C Program – File used in C Program – Compiling and Executing C Programs - Using Comments -

Keywords - Identifiers - Basic Data Types in C - Variables - Constants - I/O Statements in C- Operators in C-Programming Examples.

Decision Control and Looping Statements: Introduction to Decision Control Statements- Conditional Branching Statements - Iterative Statements - Nested Loops - Break and Continue Statement - goto Statement. UNIT III

#### 10 periods

Arrays: Introduction - Declaration of Arrays - Accessing elements of the Array - Storing Values in Array-Operations on Arrays – one dimensional, two dimensional and multi-dimensional arrays, character handling and strings.

#### **UNIT IV**

#### 14 periods

Functions: Introduction – using functions – Function declaration/ prototype – Function definition – function call – return statement – Passing parameters – Scope of variables – Storage Classes – Recursive functions.

Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Arrays of Structures – Structures and Functions- Union - Arrays of Unions Variables - Unions inside Structures - Enumerated Data Types.

#### UNIT V

#### 12 periods

Pointers: Understanding Computer Memory – Introduction to Pointers – declaring Pointer Variables – Pointer Expressions and Pointer Arithmetic - Null Pointers - Passing Arguments to Functions using Pointer - Pointer and Arrays - Memory Allocation in C Programs - Memory Usage - Dynamic Memory Allocation - Drawbacks of Pointers

Files: Introduction to Files – Using Files in C – Reading Data from Files – Writing Data to Files – Detecting the End-of-file – Error Handling during File Operations – Accepting Command Line Arguments.

- 1. E Balagurusamy Programming in ANSIC Tata McGraw-Hill publications.
- 2. Brain W Kernighan and Dennis M Ritchie The 'C' Programming language" Pearson publications.
- 3. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publications.

4. YashavantKanetkar - Let Us 'C' – BPB Publications.

#### **RECOMMENDED CO-CURRICULAR ACTIVITIES:**

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

#### A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)

2. Student seminars (on topics of the syllabus and related aspects (individual activity))

3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams)) 4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity

#### <u>B. General</u>

1. Group Discussion

- 2. Try to solve MCQ's available online.
- 3. Others

#### **RECOMMENDED CONTINUOUS ASSESSMENT METHODS:**

Some of the following suggested assessment methodologies could be adopted;

- 1. The oral and written examinations (Scheduled and surprise tests),
- 2. Closed-book and open-book tests,
- 3. Problem-solving exercises,
- 4. Practical assignments and laboratory reports,
- 5. Observation of practical skills,
- 6. Individual and group project reports like "Creating Text Editor in C".
- 7. Efficient delivery using seminar presentations,
- 8. Viva voce interviews.
- 9. Computerized adaptive testing, literature surveys and evaluations,
- 10. Peers and self-assessment, outputs form individual and collaborative work

@@@@@

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)

#### **MODEL Question Paper:**

TITLE: Problem solving in C SECTIONS: B.Sc. (MPCS / MCCS/ MSCS) TIME: 3 Hrs.

## SEMESTER: I

**COURSE CODE: CSCT11B** 

## SECTION -A

#### ANSWER ANY <u>FIVE</u> QUESTIONS

**ANSWER ALL THE QUESTIONS** 

- 1. What is a flowchart? Utilize flowchart symbols and draw a flowchart to find biggest of two numbers. (CO1, L3)
- 2. Write a short note on block diagram of computers. (CO1, L2)
- 3. Explain do...while loop with an example program. (CO2, L2)
- 4. Develop a C program to find largest number in a given integer list. (CO3,L3)
- 5. Classify data types in C. Write a short note on any two data types. (CO2, L2)
- 6. How to declare and initialize 1D arrays. (CO3, L1)
- 7. Construct a student structure to accept student details and write a C program to calculate grade of a student. (CO4, L3)
- 8. Illustrate command line arguments with an example program. (CO5, L2)

#### SECTION – B

#### 5 X 10 =50 M.

9 A) Define Algorithm. Demonstrate Key features of algorithm with examples. (CO1, L2)

(or)

B) List out the characteristics and limitations of computers. (CO1, L1)

10 A) Give Classification of Control statements in C. Explain multi-way decision making statements in C with examples. (CO2, L2)

(or)

B) Write a program to check whether the given number is Armstrong or not. (CO2, L3)

11 A) Develop a program in C for matrix multiplication. (CO3, L3)

(or)

- B) Demonstrate various String handling functions in C with examples. (CO3, L2)
- 12 A) Compare and contrast structures with unions. (CO4, L4)

(or) B) Explain the types of functions in C. (CO4, L2)

13 A) List different file handling functions in C. Explain with examples. (CO5, L2)

(or)

B) Explain call by value and call by reference with example. (CO4, L2)

@@@@@

## $5 \times 5 = 25 M.$

**MAX: 75M** 

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)

#### **BLUE PRINT**

TITLE: Problem solving in C SECTIONS: B.Sc. (MPCS / MCCS / MSCS) TIME: 3 Hrs.	COURSE CODE: CSCT11B SEMESTER: I MAX: 75M
	SECTION-A
ANSWER ANY FIVE QUESTIONS	5X5=25M
1. Unit 1	
2. Unit 1 3. Unit 2	
4 Unit 3	
5. Unit 2	
6. Unit 3	
7. Unit 4	
8. Unit 5	
S	ECTION B
ANSWER ALL THE OUESTIONS	$5 \times 10 = 50 M$
9 A) Unit 1.	
,	(or)
B) Unit 1.	
10 A) Unit 2.	
	(or)
B) Unit 2.	
11 A) Unit 3.	
$\mathbf{D}$ Unit 2	(or)
$\begin{array}{c} B \end{pmatrix} \text{ Unit } 3. \\ 12 \text{ A) Unit } 4 \end{array}$	
12 A) Unit 4.	(or)
B) Unit 4.	
13 A) Unit 5.	
	(or)
B) Unit 5.	

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22)

Semester I	<b>Course Code</b>	Course Title	Credits	Prd	
				S	
B.Sc.(MPCS / MCCS/ MSCS)	CSCP11B	Problem Solving in C Lab	1	30	

Course Outcome No	Upon successful completion of this course, students should have the knowledge and skills to:	Program Outcome No
CO1	Apply logical skills to analyse a given problem	PO1, PO7, PSO1, PSO4, PSO2
CO2	Design an algorithmic solution for a given problem	PO1, PO7, PSO1, PSO4, PSO2
CO3	Write a maintainable C program according to coding standards for a given algorithm	PO1, PO7, PSO1, PSO4, PSO2
CO4	Debug a given program	PO1, PO7, PSO1, PSO4, PSO2
CO5	Execute the C program	PO1, PO7, PSO1, PSO4, PSO2

#### Experiments List Cycle-I

Week 1:

Write a C program to check whether the given two numbers are equal, bigger or smaller? **Week 2:** 

Write a C program to perform arithmetic operations using Switch...case? Week 3:

- Write a program to find the sum of individual digits of a positive integer.
- Write a program to check whether the given number is Armstrong or not.

### Week 4:

Write a program to generate the first N terms of the Fibonacci sequence.

Week 5:

Write a program to find both the largest and smallest number in a list of integer values **Week 6**:

- Write a program that uses functions to add two matrices.
- Write a program for multiplication of two n X n matrices.

## Week 7:

Write a program to demonstrate refection of parameters in swapping of two integer values using Call by Value& Call by Address.

Write a program to calculate factorial of given integer value using recursive functions.

Cycle-II

Week 9:

Write a program to search an element in a given list of values.

Week 10:

Write a program to illustrate pointer arithmetic.

Week 11:

Write a program to sort a given list of integers in ascending order.

## Week 12:

Write a program to calculate the salaries of all employees using Employee (ID, Name, Designation, Basic Pay, DA, HRA, Gross Salary, Deduction, Net Salary) structure.

- a. DA is 30 % of Basic Pay
- b. HRA is 15% of Basic Pay
- c. Deduction is 10% of (Basic Pay + DA)
- d. Gross Salary = Basic Pay + DA+ HRA
- e. Net Salary Gross Salary Deduction

## Week 13:

Write a program to perform various string operations.

## Week 14:

Write a program to read the data character by character from a file.

## Week 15:

Write a program to create Book (ISBN, Title, Author, Price, Pages, Publisher) structure and store book details in a file and perform the following operations

- a. Add book details
- b. Search a book details for a given ISBN and display book details, if available
- c. Update a book details using ISBN
- d. Delete book details for a given ISBN and display list of remaining Books.

@@@@@

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)

Semester I	Course Code	Course Title	Credits	Periods	
B.Com.(Computer Applications	CABT11A	Information Technology	4	75	

#### INFORMATION TECHNOLOGY

**Objective:** It provides to learn computer basics and basic principles of using Windows operation system and be able to access the Internet, data communication, Software, hardware and various new technologies in information technology.

#### **Course Outcomes:**

<b>COURSE OUTCOME</b>	Upon successful completion of this course, students should have the
NO	knowledge and skills to
CO1	Understand fundamental concepts of a computer and its basic components
CO2	Understand basic functioning of an operating system and customizing Windows Desktop
CO3	Analyse type of soft wares and programming languages
CO4	Have knowledge in basic Network and Data Communication Concepts
CO5	Understand the need of data mining and get familiarize with basics of new concepts like KDD, OLAP

#### **UNIT-I: INTRODUCTION:**

1.1 Introduction to computers

1.2 Generations of computers

1.3 An overview of computer system - Types of computers

1.4 Input & Output Devices.

1.5 Hardware: Basic components of a computer system- Control unit- ALU- Input/output functions.

1.6 Memory – RAM – ROM – EPROM - PROM and Other types of memory.

### UNIT-II: OPERATING SYSTEM (OS):

12Periods

**15Periods** 

**13Periods** 

2.1 Meaning - Definition & Functions.

2.2 Types of OS - Booting process

2.2.1 DOS - Commands (internal & external) - Wild card characters

2.3 Windows: Using the Start Menu –Control Panel – Using multiple

2.3.1 Windows – Customizing the Desktop – Windows accessories (Preferably latestversion of windows or Linux Ubuntu).

### **Unit-III: SOFTWARE:**

3.1 System software and application software.

3.1.1 Operating system windows OS,

- 3.1.2 Mobile device operating system and notebook operating systems
- 3.2 Application software Types of personal application software

3.2.1 Spread sheet-data management

- 3.2.2 Word processing
- 3.2.3 Desktop publishing
- 3.2.4 Graphics, CAD, CAM, CIM

#### 3.3 Programming Languages

3.3.1 Assembly language

3.3.2 Procedural language, non-procedural language, natural programming language.

3.3.3 Hypertext mark-up language, modelling language, object-oriented programming language.

### **Unit-IV: DATA COMMUNICATION:**

4.1 Telecommunication and Networks Communication media& channel cable media

4.1.1 Broad cast media channels twisted pair

- 4.1.2 Coaxial cable, fibers optical cable, micro wave, satellite, radio, cellular radio, infrared global positioning system.
- 4.2 Introduction, Analog and Digital signals, modulation need of modulations, modems.

4.3 Telecommunication System communication processors:

- 4.3.1 Modem
- 4.3.2 Multiplexers
- 4.3.3 Front –end-processor.

4.4 Networks LAN, WAN, VAN, virtual private network (VPN).

4.5 Internet, intranet and Extranets

4.5.1 The evolution of the internet, service provided by the internet, World Wide Web.

#### **Unit-V: NEW TECHNOLOGIES:**

5.1New technologies in Information Technology:

5.1.1 Introduction to hyper media, artificial intelligence and business intelligence, knowledge discovery in database (KDD)

5.2 Data warehouse and data marts. Data mining and OLAP.

#### **Student Activity:**

Students have to submit assignments and give seminars on various topics allotted to them. **Total of 5 Hrs is allotted for student seminars**. Student activity also includes gathering of information related to latest technologies in computers.

#### Library Activity:

Students will visit library in their allotted time and will refer various text books to gather information for their assignments.

#### **TEXT/ REFERENCE BOOKS:**

1. B.E.V.L.Naidu, V.V.. Devi Prasad Konti, Ganti Naga Srikanth, Himalaya publishing House.

2. Introduction to Computers: Peter Norton, McGraw Hill

@@@@@

#### **10 Periods**

#### 20 Periods

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)

**MODEL Question Paper:** 

C COURSE CODE: CABT11A

PAPER TITLE: Problem solving in C CLASS: B.Com (Computer Applications) SEMESTER: I TIME: 3 Hrs.

#### MAX: 75M

5X5 = 25M

#### $\underline{SECTION} - \underline{A}$

Answer any five of the following

1. Illustrate the characteristics of RAM and ROM. (CO1, L2)

- 2. Define Operating system. What are different types of OS? (CO2, L1)
- 3. Demonstrate application software and system software. (CO3, L2)
- 4. What are the different types of networks? (CO4, L1)
- 5. Explain the steps involved in the process of KDD. (CO5, L2)
- 6. Explain about input devices. (CO1, L2)
- 7. What are analog and digital signals? (CO4, L1)
- 8. Explain Data warehouse. (CO5, L2)

#### **SECTION –B**

#### Answer the following

#### 5x10=50M

- 9. a) Explain the block diagram of computer. (CO1, L2) **OR** 
  - b) Explain the generations of computers. (CO1, L2)
- 10. a) What are the functions of operating system? (CO2, L1) OR
  - b) What are DOS Internal and External commands? (CO2, L1)
- 11. a) Explain the characteristics of various types of programming languages. Give examples. (CO3, L2)
  - **OR** b) Summarize the concepts on CAD, CAM and CIM. (CO3, L2)
- 12. a) Define the various types of Communication media and channels. (CO4, L1)

OR

b) What are the Advantages and Disadvantages of Internet? (CO4, L1)

13. a) Demonstrate On-Line Analytical process (OLAP). (CO5, L2)

OR

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)

Semester I	Course Code	Course Title	Credits	Periods
<b>B.Com.</b> (E-Commerce)	CSCT11B	E-COMMERCE & WEB DESIGNING	4	60

#### **COURSE OBJECTIVES:**

The main objective of the course is to impart conceptual understanding on business transactions on worldwide web and electronic commerce & Electronic Customer Relationship Management and Web designing concepts for Providing quality content on website.

#### **COURSE OUTCOMES:**

COURSE OUTCOME NO	Upon successful completion of this course, students should have the knowledge and skills to
CO1	Understand the structure of HTML its basic tags
CO2	Implement various HTML tags for web page development
CO3	Understand about implementing forms and frames in web page designing
CO4	Gain knowledge in E- commerce and its business models
CO5	Differentiate traditional and e – marketing and also gain knowledge in E-CRM and EPS

(12Hrs)

(12Hrs)

(12Hrs)

#### **UNIT I: Introduction to Web Designing**

#### 1.1 Introduction

- 1.2 1.1.1 WWW and its Evaluation
- 1.1.2 Define network and its advantages 1.1.3 Types of networks 1.1.4 Network Topologies 1.2 **HTML** 1.2.1 Define HTML 1.2.2 Structure of HTML 1.2.3 Basic HTML tags 1.2.4 Formatting HTML tags **UNIT II: HTML Tags** 2.1: Lists 2.1.1 Ordered List 2.1.2 Unordered List

#### 2.2 Links

- 2.2.1 Link tag
- 2.2.2 image tag
- 2.2.3 Marquee tag
- 2.3 Tables
  - 2.3.1 Table Creation
  - 2.3.2 Attributes of Table

#### UNIT III: Forms and Frames and CSS

#### 3.1 forms

3.1.1 forms creation	
3.1.2 form tag	
3.1.3 input fields of form	
3.2 Frames	
3.2.1 Frame Creation	
3.2.2 Frameset tag	
3.2.2 Frame tag	
5.2.5 Hume ug	
3.3 Cascading Style Sheets	
3.3.1 Introduction to CSS	
3.3.1 Types of CSS	
3.3.2 in-line Style Sheet	
3.3.3 internal Style Sheet	
3.3.4 External Style Sheet	
UNIT IV: An Overview on E-Commerce	( <b>10Hrs</b> )
4.1.1Introduction E-Commerce	
1. Definition of E- Commerce and its advantages & disadvantages	
2. Electronic Data Interchange (EDI)	
3. E-Commerce transactional issues and challenges	
4.1.4 Difference between Commerce and E-Commerce	
4.2Business Models for Ecommerce	
1. B2C -Business to consumer.	
2. B2B – Business to business	
3. C2B – Consumer to business.	
4. C2C – Consumer to consumer.	
UNIT V: E-Marketing &E – CRM& Electronic Payment Systems	( <b>14Hrs</b> )
5.1 Online Marketing	
1. Traditional Vs. E-Marketing	
5.1.2 Unline Marketing	
5.1.3 E-Advertising	
5.1.4 Internet marketing	
5.2 E - CRM 5.2 I Definition of CDM and E CDM and its Applications	
5.2.1 Definition of CRM and E-CRM and its Applications 5.2.2 E. CDM Architectural components	
5.2.2 E- CKW Alchitectural components	
5.2.5 Definition & characteristics of E - SCM	
5.2.4 Deficition of UDS $5.2.5 \text{ E}$ Logistics of UDS	
5.2.5 E-Logistics of 01.5	
5.3.1 Types of FPS	
5.3.2 Traditional navment system and modern navment system	
5.3.3 Steps for electronic navment	
5.3.4 Payment security	
- · · · · · · · · · · · · · · · · · · ·	
Text Book:	

1. Uttam Kumar Roy, Web Technologies, Oxford University Press.

2. E-Commerce- A Managerial Perspective- P. T. Joseph, Prentice- Hall of India, New Delhi, 2005. **References:** 

1. Kogent Learning Solutions Inc.(Author), "Black Book HTML 5.0", dreamtech.

2. Daniel Amor, E-Bussiness R(Evolution), Pearson Edude, New Delhi, 2005.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)

Computer Science	2021-22	B.Com (Computers Applications)

#### <mark>SEMESTER - I</mark>

#### WEB DESIGNING LAB (NEW SYLLABUS)

Credits: 2

#### **COURSE OBJECTIVES:**

The purpose of this course is to introduce to students to the field of creation web pages using HTML language. The students will be able to enhance their analyzing and help to creation for Web Site Design

#### COURSE OUTCOMES:

COURSE OUTCOME NO	Upon successful completion of this course, students should have the knowledge and skills to
CO1	Implement HTML tags.
CO2	Implementing lists and tables in web pages.
CO3	Implementing frames in web pages.
CO4	Implementing frames in web pages.
CO5	Creation of CSS in a web page.

1. Write a HTML program to print text in bold and italic font.

2. Write a HTML program to print Heading tags.

3. Write a HTML program using Text formatting tags

3. Write a HTML program to implement unordered lists.

4. Write a HTML program to implement order lists.

5. Write a html file which display 3 images at LEFT, RIGHT and CENTER respectively in the browser.

6 Create a HTML file which contains hyperlinks.

7 Write a HTML program to create a table

8. Write a HTML program to create a table using Row Span and Cols pan

9. Write a HTML program to create a table using cell padding and Row Spacing

10. Write a HTML program to create a simple form

11. Create a Registration form that interacts with the user. Collect login name, password, date of birth, gender, address, qualification.

12. Create a HTML page using frameset tag.

13Write a Program to create an inline style sheet.

14. Write a program to create Embedded Style Sheet.

15. Write a program to create an external style sheet to illustrate the "Font" elements.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)

a	E-Commerce Mod	&Web Designing el Paper
Cla Coi Se	uss: B.Com (Computer Applications) urse Code: emester: II	Max Marks: 75 M Time: 3Hours
	Section-A	
AN	SWER <u>ANY FIVE</u> QUESTIONS	5X5M=25M
1.	Define Networks and its types? (CO3, L1)	
2.	Explain Link tags in HTML (CO4, L2)	
3.	Define frames in HTML (CO5, L1)	
4.	Explain the E-Commerce (CO1, L2)	
5.	Compare Traditional marketing and E-Marketing. (	CO2, L2)
6.	Demonstrate concept of formatting Tags (CO4, L2)	
7.	Compare Commerce and E-Commerce. (CO1, L2)	
8.	Explain Benefits and goals of $E - SCM$ . (CO2, L2)	
		<u>Section-B</u>
AN	SWER THE FOLLOWING QUESTIONS	5X10M=50M
9.	(A) Define Structure of HTML with examples (CO.	3, L1)
-	(OR)	
(B	) What are different types Network Topologies? (CC	03, L1)
10.	(A) Classify List Types in HTML. (CO4, L2)	
	(OR)	
	(B) Demonstrate the concept of Table creation	n with apply all Attributes. (CO4, L2)
11.	(A) Define forms in html and creation of form with (OR)	all input types? (CO5, L1)
	(B)What are different types of CSS with suitable ex	amples? (CO5, L1)
12.	(A) Explain EDI. (CO1, L2)	•
	(OR)	
	(B) Classify Business Models for Ecommerce. (CC	01, L2)
13.	(A) Illustrate E- CRM Architectural components. (	CO2, L2)
	(OR)	
	(B) Explain Electronic Payment Systems. (CO2, L2	2)

\*\*\*\*\*\*

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22)

Semester ICourse CodeCourse TitleCreditsPeriodsLife Skill CourseLSC1BASIC COMPUTER<br/>APPLICATIONS230

#### **COURSE OBJECTIVES:**

This course aims at providing exposure to students in skill development towards basic office applications.

#### **Course Learning Outcomes:**

After successful completion of the course, student will be able to:

- 1. Demonstrate basic understanding of computer hardware and software.
- 2. Apply skills and concepts for basic use of a computer.
- 3. Identify appropriate tool of MS office to prepare basic documents, charts, spreadsheetsand presentations.
- 4. Create personal, academic and business documents using MS office.
- 5. Create spreadsheets, charts and presentations.
- 6. Analyze data using charts and spread sheets.

#### **Unit- I Basics of Computers:**

Definition of a Computer - Characteristics of computers, Applications of Computers – Block Diagram of a Digital Computer – I/O Devices, hardware, software human ware, application software, system software, Memories - Primary, Auxiliary and Cache Memory.

**MS Windows** – Desktop, Recycle bin, My Computer, Documents, Pictures, Music, Videos, Task Bar, Control Panel.

#### Unit-II: MS-Word:

Features of MS-Word - MS-Word Window Components - Creating, Editing, Formatting and Printing of Documents – Headers and Footers – Insert/Draw Tables, Table Auto format – Page Borders and Shading – Inserting Symbols, Shapes, Word Art, Page Numbers, MailMerge.

#### Unit-III: MS-Excel:

Overview of Excel features – Creating a new worksheet, Selecting cells, Entering and editing Text, Numbers, Inserting Rows/Columns – Changing column widths and row heights, Formulae, Referencing cells, Changing font sizes and colors, Insertion of Charts, Auto fill, Sort. **MS-PowerPoint:** Features of PowerPoint – Creating a Presentation - Inserting and Deleting Slides in a Presentation – Adding Clip Art/Pictures -Inserting Other Objects, Audio, Video - Resizing and scaling of an Object – Slide Transition – Custom Animation.

#### 8 Hrs

#### 10Hrs

#### D1 1

8Hrs

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

- Assignments (in writing and doing forms on the aspects of syllabus content and outside a. the syllabus content. Shall be individual and challenging)
- 2. Student seminars (on topics of the syllabus and related aspects (individual activity))
- 3. Quiz, Group Discussion
- 4. Solving MCQ's available online.
- 5. Suggested student hands on activities:
  - Create two folders, Rename the folder, create two files each using notepad and paint, move the files from one folder to another folder, delete a file you have created, copy and paste text within notepad.
  - Create a letter head for your college with watermark, your resume, visiting card, brochure for your college activity, organization chart for your college, any advertisement, Prepare your Class time table.
  - Prepare your mark sheet, Prepare your class time table, Prepare a salary bill for an organization, Sort the bill as per the alphabetical order of the names, Get online weather data and analyze it with various charts.
  - Create a PowerPoint presentation for a student seminar.

### **Reference Books**

- 1. Working in Microsoft Office Ron Mansfield TMH.
- 2. MS Office 2007 in a Nutshell Sanjay Saxena Vikas Publishing House.
- 3. Excel 2020 in easy steps-Michael Price TMH publications

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)

**MODEL Question Paper:** 

# PAPER TITLE: BASIC COMPUTER APPLICATIONSCOURSE CODE: LSC1SEMESTER: ITIME: 2 Hrs.MAX: 50M

#### <u>SECTION – A</u>

(Total: 4x5=20 Marks)

Answer any four questions. Each answer carries 5 marks

1. 2. 3. 4. 5. 6. 7. 8.

<u>SECTION – B</u>

(Total: 3x10 = 30 Marks)

(Answer any three questions. Each answer carries 10 marks

1.

2.

3.

4.

5.

## A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

## VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

## 2022-2023



## **DEPARTMENT OF COMPUTER SCIENCE**

## **MINUTES OF BOARD OF STUDIES**

## **EVEN SEMESTER**

03-04-2023

Minutes of the meeting of Board of Studies in Computer Science for Semester II, IV & VI of I, II & III years B.Sc. (MPCs, MCCs, MSCs), B.Com. (C.A.) and B.Com (e-Commerce-Computers) Life Skill Course and Skill Development Course of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10.00 A.M on 03-04-2023 in the Department of Computer Science.

Sri T.NagaPrasadaRao	Presic	ling
Members Present:		1
1)	Chairman	Head, Department of Computer Science, AG&SG Siddhartha Degree College of Arts & Science.
2) (Dr. M. Babu Reddy)	University Nomine	Principal, Krishna University College of Engineering and Technology, Machilipatnam.
3) (Dr. P. J. S Kumar)	Subject Expert	Principal, HOD of Department of Computer Science A.N.R College Gudivada.
4) (Mr. K. Sridhar)	Subject Expert	TPO, Department of Computer Science PB Siddhartha College of Arts & Science, VJA
5) (R. Sowjanya)	- Industrial Expert	.Net Developer, Maven Soft System Pvt. Ltd Madaapur, Hyderabad.
6) Prabhavatt (S. Prabhavathi)	Member	Lecturer in Computer Science, AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
7). (A. Sravani)	Member	Lecturer in Computer Science, AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
8) (A. Naga Srinivasa Rao)	Member	Lecturer in Computer Science, AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
9) G.Katyayini)	Member	Lecturer in Computer Science, AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
10) (O.Teja Sri)	Member	Lecturer in Computer Science, AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
11)	Member	Lecturer in Computer Science, AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
12) Gr. barranya (G.Lavanya)	Member	Student in M.Sc. CS, AG& SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165
13) J. Thearr (G.Jahnavi)	- Member	Student in B.Sc. MPCs, AG& SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165

#### Agenda for B.O.S Meeting.

- To discuss introducing Syllabi and Model papers for Elective Skill Enhancement Courses (SEC) for B.Sc. (MPCs) & B.Com (C.A) programmes in Fifth/Sixth Semester adopting COs in line with guidelines of OBE following Blooms Taxonomy for the students admitted in the Academic year 2020-2021 and onwards.
- 2. To Discuss and approve the Structure and Syllabi and model papers of B. Sc. (MPCs, MCCs, MSCs), B.Com (C.A) & B.Com(e-commerce-Computers) programme in Second, Fourth & Six semesters for the student admitted in the academic year 2022-23 and onwards.
- 3. To recommend any changes in the syllabi for I, III, V & VI Semesters of I, II, III year Degree B.Sc.(MPCs, MCCs, MSCs), B.Com.(C.A.) and B.Com(e-commerce-Computers).
- 4. To Introduce a Life Skill Course and Skill Development Course for all B.Sc and B.Com from the Academic Year 2022-23.
- 5. To recommend the teaching and evaluation methods to be followed under Autonomous status.
- 6. To recommend the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG & SG Siddhartha Degree College of Arts & Science College, Vuyyuru.
- 7. Any other matter

#### **Resolutions**

- 1. It is Resolved and Recommended to adopt the structure, syllabi & Model papers for Elective Skill Enhancement Courses (SEC) for B.Sc. (MPCs, MCCs, MSCs) & B.Com (C.A) programmes in Fifth/Sixth Semester adopting COs in line with guidelines of OBE following Blooms Taxonomy for the students admitted in the Academic year 2020-2021 and onwards.
- 2. It is Resolved and recommend the same syllabi without changes, but only changes on Model Paper for II Semester of I Year B.Sc. (MPCs, MCCs, MSCs), B.Com.(CA) & B.Com(e-commerce-Computers).
- 3. It is Resolved and Recommend to introduce new Syllabi and Model Question paper as per new regulations in IV Semester of II Year Degree B.Sc. (MPCs, MCCs) and B.Com(CA).
- 4. It is Resolved to implements Life Skill Course and Skill Development Course for all B.Sc and B.Com from the Academic Year 2022-23.
- 5. It is resolved to continue the teaching and evaluation methods to be followed under Autonomous status.
- 6. It is resolved to continue the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG & SG Siddhartha Degree College of Arts & Science College, Vuyyuru.
- 7. Discussed and recommended to introduce Value Added Course on "Deep Learning" with Course Code "DLVAC01" for II B.SC (MSC's)
- 8. Any other matter

#### Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of LMS and LCD projector to display on power board etc..for better understanding of concepts. *Evaluation of a student is done by the following procedure:* 

There are two components in the Valuation and Assessment of a student – Internal Assessment (IA) Semester Examinations (SE). For the Batch of Students Admitted from 2022-23.

#### Internal Assessment (IA)

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical marks for IA 10 and 40 Marks for External Exam.
- Each IA written examination is of 1 hour 30 minutes duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Attendance will be for 5 Marks. The other innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /PPT/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation.
- The semester examination will be of 3 hours with maximum 70 marks.

### Internal Assessment (IA) For the Batch of Students Admitted from 2021-22.

- The maximum mark for IA is 25 and SE is 75 for theory; and for practical marks for IA 10 and 40 Marks for External Exam.
- Each IA written examination is of 1 hour duration for 15 marks. The tests will be conducted centrally. The average of two such IA is calculated for 15 marks.

- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of
- Assignments/ quiz/ seminars /PPT/Online- assignments/Open Book/Viva Voce/ Group work/ MiniProject/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/herpresentation.
- The semester examination will be of 3 hours with maximum 75 marks.

#### Internal Assessment (IA) For the Batch of Students Admitted from 2020-21.

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical marks for IA 10 and 40 Marks for External Exam.
- Each IA written examination is of 1 hour 30 minutes duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Attendance will be for 5 Marks. The other innovative component is for 5 marks, conducted during
  the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/
  seminars /PPT/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/
  Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff
  member/ in charge of the subject in advance. Each student should explain and defend his/her
  presentation.
- The semester examination will be of 3 hours with maximum 70 marks.

#### Semester Examinations (SE)

- A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.
- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration & Foundation course 2 hours irrespective of the number of credits allotted to it.
- If a candidate fails to obtain pass marks even after the due to less mark in the IA examination, the marks of the next examination will be converted to be out of 100.
- Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/she gets 40/100) and the result shall be declared as 'PASS'.
- The maximum marks for each Paper shall be 100.

Question paper guide lines for Practical Examinations at the end of Semesters II, IV & VI Two Practical Programs to be conducted out of 15 programs at the end of Semester II, IV, VI Practical Examination time 3Hrs and Maximum Marks 50 Scheme of valuation Semesters – II, IV, VI B.Sc.& B.Com.(C.A), B.Com.(e-commerce-Computers).

Computer Science Practical's - External (Time: 3 hrs.) Total Marks: 40M

	1. Programs wr	iting (	2):20 marks,
2.	Viva voice	:	5 marks
3.	Execution & Result	:	15 marks
	Total Marks	:	40

#### **Computer Science Practical's- Internal**

1. Record

10 marks

#### **Total Marks: 10 M**

6) Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council.

7) Discussed and empowered the HOD to suggest the panel of the paper setters and examiners to the controller of the examinations.

8). We implemented online certificate courses & Internships such as NPTL, APSSDC - PYTHON, R-Programming, Amazon Web services and JAVA----- etc. To fill the curriculum gaps from II year Degree on words

9). Suggestions

Chairman

LIST OF THE COURSES REVISED/ INTRODUCED IN V/VI SEMESTERS (2022 – 2023) BSC(MPCs & MCCs)										
		Hı W	rs. / eek	Cre	edits	Marks				
SEM NO	Course Code	No.	Title of Course	Th.	Lab	Th.	Lab	Int. Max. Marks	SEE	Total Marks
	SECCSCT01	<i>с</i> <b>А</b>	Web Interface Designing Technologies	3		3		30	70	100
	SECCSCP01	0A	Web Interface Designing Technologies Lab		3		2	10	40	50
V/VI	SECCSCT02	7.4	Web Applications Development using PHP& MYSQL	3		3		30	70	100
	SECCSCP02		Web Applications Development using PHP& MYSQL Lab		3		2	10	40	50
	1		OR	1		1			1	
	SECCSCT03		Internet of Things	3		3		30	70	100
	SECCSCP03	6B	Internet of Things Lab		3		2	10	40	50
	SECCSCT04	7B	Application Development using Python	3		3		30	70	100
	SECCSCP04		Application Development using Python Lab		3		2	10	40	50
		1		OR	1	-	Γ			
	SECCSCT05	6C	Data science	3		3		30	70	100
V/VI	SECCSCP05 SECCSCT06		Python for Data Science	3	3	3	2	30	40 70	50 100
	SECCSCP06	7C	Python for Data Science Lab		3		2	10	40	50

LIST OF THE COURSES REVISED/ INTRODUCED IN V/VI SEMESTERS(2022 – 2023) B COM (C A) V/VI SEMESTERS OF B Com (C A) &														
B.Com(e-commerce-Computers)														
SEM NO	Course	Course		H W	rs. / eek	Cre	edits	ts Marks						
	Code	No.	Title of Course	Th.	Lab	Th.	Lab	Int. Max. Marks	SEE	Total Marks				
	SECCAT01	6A	Big data Analytics using R	3		3		30	70	100				
	SECCAP01		Big data Analytics using R Lab		3		2	10	40	50				
	SECCAT07	7A	Data Science using Python	3		3		30	70	100				
	SECCAP07		Data Science using Python Lab		3		2	10	40	50				
		-		OR		-	-							
	SECCAT03	6B	Mobile application development	3		3		30	70	100				
	SECCAP03		Mobile application development Lab		3		2	10	40	50				
	SECCAT04		Cyber Security and Malware Analysis	3		3		30	70	100				
V/VI	SECCAP04	7B	Cyber Security and Malware Analysis Lab		3		2	10	40	50				
				OR		1	l							
	SECCAT05	6C	E Commerce Application Development	3		3		30	70	100				
	SECCAP05		E Commerce Application Development Lab		3		2	10	40	50				
	SECCAT06	7C	Real time governance system (RTGS)	3		3		30	70	100				
V/VI	SECCAP06		Real time governance system (RTGS) Lab		3		2	10	40	50				
				OR										
	SECCAT07		Multimedia Tools and Applications	3		3		30	70	100				
	SECCAP07	6D	Multimedia Tools and Applications Lab		3		2	10	40	50				
	SECCAT08		Digital Imaging	3		3		30	70	100				
	SECCAP08	7D	Digital Imaging Lab		3		2	10	40	50				

## A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

### **DEPARTMENT OF COMPUTER SCIENCE**

L	ST OF THE	E COURS	ES RI	EVISED/		ODUCI	E <b>D IN</b>	II & IV	SEMI	ESTERS -
	-	1	1	2	2022-23	I	1		1	ſ
S. NO	Name of the Course	Course Code	SEM No	Type of the Paper	Total Marks	IA TEST	SEE	Teaching Hours	Credi ts	Offered to (Name of the Programme)
1	Object Oriented Programming using Java	CSCT01	IV	Core	100	25	75	4	4	B.Sc (MPCs, MCCs)
2	Object Oriented Programming using Java Lab	CSCP01	IV	Core Lab	50	10	40	2	1	B.Sc (MPCs, MCCs)
3	Operating System	CSCT41C	IV	Core	100	25	75	4	4	B.Sc (MPCs, MCCs)
4	Operating system Lab	CSCT41C	IV	Core Lab	50	10	40	2	1	B.Sc (MPCs, MCCs)
5	DBMS	CABT41A	IV	Core	100	25	75	4	3	B.Com(CA)
6	DBMS Lab	CABP41A	IV	Core Lab	50	10	40	2	1	B.Com(CA)
7	Object Oriented Programming using Java	CCSCT42	IV	Core	100	25	75	4	3	B.Com(CA)
8	Object Oriented Programming using Java Lab	CCSCP42	IV	Core Lab	50	10	40	2	1	B.Com(CA)
9	OOP'S using Java	ECCSCT 41	IV	Core	100	25	75	4	3	B.Com(ecomm erce- Computers)
10	OOP'S using Java Lab	ECCSCP41	IV	Core Lab	50	10	40	2	1	B.Com(ecomm erce- Computers)
11	DBMS	ECCSCT 42	IV	Core	100	25	75	4	3	B.Com(ecomm erce- Computers)
12	DBMS Lab	ECCSC P42	IV	Core Lab	50	10	40	2	1	B.Com(ecomm erce- Computers)
13	Data Communicatio ns& Networks	ECCSCT43	IV	core	100	25	75	5	4	B.Com(ecomm erce- Computers)
14	Data Structures	CSCT21B	п	Core	100	30	70	4	3	B.Sc (MPCs, MCCs, MSCs)
15	Data Structures Lab	CSCT21B	п	Core Lab	50	10	40	2	1	B.Sc (MPCs, MCCs, MSCs)

16	E– COMMERCE & WEB DESIGNING	CABT21A	II	Core	100	30	70	4	3	B.Com(CA)
17	Web Design Lab	CABT21A	II	Core Lab	50	10	40	2	1	B.Com(CA)
18	Information Technology	CABT21A	II	Core	100	30	70	4	4	B.Com(ecomm erce- Computers)
19	Programming in C	ECCSC21	II	Core	100	30	70	4	4	B.Com(ecomm erce- Computers)
20	Programming in C Lab	ECCSC21P	II	Core Lab	50	10	40	2	1	B.Com(ecomm erce- Computers

**Note-1:** For Semester–V, for the domain subject Computer Science any one of the three pairs of SECs shall be chosen as courses 16,17,18,19,20 and 21, i.e., 16A & 17A or 16B &; 17B or 16C &; 17C and so on. The pair shall not be broken (ABCD allotment is random, not on any priority basis).

**Note-2:** One of the main objectives of Skill Enhancement Courses (SEC) is to inculcate field related skills of the domain subject in students. The syllabus of SEC will be partially skill oriented. Hence, teachers shall also impart practical training to students on the skills embedded in syllabus citing related real field situations.

#### A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE Vuyyuru-521165.NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified*

#### Title of the Paper: WEB INTERFACE DESIGNING TECHNOLOGIES Semester: V/VI

Course Code	SECCSCT01	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022 -23	Year of Revision:	Percentage of Revision: 0%

**Course Objective**: To create web elements like buttons, banners & Bars and of course complete UI designs. Forms and validations for your website. Setting up page layout, color schemes, contract, and typography in the designs. Writing valid and concise code for web pages.

CO <sub>1</sub>	Understand web application and static web page using Html. (PO5)
CO2	Gain knowledge about various designing of style sheets. (PO5)
CO3	
	Demonstrate skills regarding creation of an interface to dynamic website.(PO7)
CO4	Gain knowledge about various advantages of XML and validating schema(PO5)
CO5	Learn how to install word press and gain the knowledge of installing various plugins
	to use in their websites. (PO5,PO7)

#### Course Outcomes: Students at the successful completion of the course will be able to:

	Syllabus	
	Course Details	
Unit	Learning Units	Lecture Hours
Ι	<ul> <li>Web Designing, HTML</li> <li>Web Designing: Introduction To Web Designing, Difference Between Web Applications And Desktop Applications.</li> <li>HTML: Introduction To HTML, Introduction To HTML, Headings, Paragraphs Styles &amp;Colors, HTML Formatting, Quotations, Comments, Hyperlinks, Lists, Using colors and images, Tables, Multimedia Objects - Video, Audio, Plugins, You Tube, Frames, Forms</li> </ul>	12
II	CSS, HTML API'S CSS: Introduction, Using Styles, Simple Examples, Defining Your Own Styles, Properties and Values in Styles, Style Sheets, Formatting blocks of information, Layers, CSS Combinators, Pseudo Class, Pseudo Elements, Opacity, ToolTips, Image Gallery, CSS Forms, CSS Counters, CSS Responsive.HTML API'S: Geolocation, Drag/drop, local storage, HTML SSE	12
III	<b>Client side Validation:</b> Introduction to JavaScript: What Is DHTML?, JavaScript Basics,Variables,StringManipulations,MathematicalFunctions,Statements,Operators,Arr ays,Functions.Objects in JavaScript –Data and Objects In JavaScript, Regular Expressions, Exception Handling. DHTML with JavaScript :Data Validation, Opening a New Window, Messages and Confirmations, The Status Bar, Different Frames, Rollover Buttons, Moving Images	14
IV	<b>XML:</b> Introduction to xml, How to write a xml document, Elements and attributes, Comments in xml, Namespace in xml, Xml css, Advantages of xml, Uses of xml, xml schema, data types, simple types, complex types, Validating DTD,XSD.	12
V	<b>Word press</b> Introduction to word press, servers like wamp, bitnami e.tc, installing and configuring word press, understanding admin panel, working with posts and pages, using editor, text formatting with shortcuts, working with media-Adding, editing, deleting media elements, working with widgets, menus.	10
Text	<ul> <li>t Book/ references / e-books/websites</li> <li>1. Chris Bates, Web Programming Building Internet Applications, Second Edition, Wil</li> <li>2. Web technologies by A.A.Puntambekar</li> </ul>	ley

- 3. Web Technologies by N.P.Gopalan, Eastern Economy Edition, 2<sup>nd</sup> edition
- 4. Paul S. WangSanda S. Katila, an Introduction to Web Design plus Programming, Thomson
- 5. Head First HTML and CSS, Elisabeth Robson, Eric Freeman, O'Reilly Media Inc.
- 6. An Introduction to HTML and JavaScript: for Scientists and Engineers, David R. Brooks.
- 7. Schaum's Easy Outline HTML, David Mercer, Mcgraw Hill Professional.
- 8. Word press for Beginners, Dr.Andy Williams.
- 9. Professional word press, Brad Williams, David damstra, Hanstern.
- 10. Web resources:
  - a. http://www.codecademy.com/tracks/web
  - b. http://www.w3schools.com
  - c. https://www.w3schools.in/wordpress-tutorial/ d.http://www.homeandlearn.co.uk

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2022-23)

	(******		I cul 2022			
	COMPUTER SCIENCE	SECCSCT01	2022-23	B.SC(MPCS,MCCS)		
	SEMESTER – V/VI	PAPER – VI		Max. Marks 70		
Model Paper: WEB INTERFACE DESIGNING TECHNOLOGIES						
N	NO of Hours: 3	No Of Credits:	Pass Marks 28			
nswer	any Four questions. (At leas	SECTION – A Short Answer Ques at 1 question should b	stions e given fro	m each Unit) ( 4x5–20Marka		
What i What Explai What i What Expla	s HTML? Explain features an is layer? How are they describ n hyperlinks in HTML.(CO2,I s java script? Explain the feat are the elements and attributes in text formatting in word Pres	id structure of HTML p bed with HTML code? (L5) ures ,advantages and d s used in XML(CO4,L ss.(CO5,L5)	orogram wi (CO1,L1) isadvantago 1)	th example(CO1,L1)		
nswer	all questions.	SECTION-B				
	at is list? Evalsin various true	a of lists in UTML (C	<b>1 I 1</b> )	$(5 \times 10 = 50 \text{ M})$		
(a) what	at is list? Explain various type	or nots in HTML.(CO OR	JI,LI)			
(b)Exp	lain Frames and forms in HTM	AL(CO1,L2)				
0(a)Dei	fine CSS, Explain various styl	es sheets in HTML(CO	D2,L1)			
D(b). E	xplain HTML APIs.(CO1,L2)	OK				
1(a).W	hat is DHTML? Explain about	t various string and ma	thematical	functions(CO3,L2)		
1(b) Ex	plain Exception handling and	rollover buttons in jav	a script(CC	03,L2)		
2(a).W	hat are the advantages of using	g XML and CSS? How	v to validate	e XML schema.(CO4,L1)		
2(b) Ex	plain about DTD in XML(CC	0 <b>k</b> 04,L2)				
3(a) W	hat is admin panel, what are th	ne steps involved in wo OR	orking with	post and pages (CO5,L1)		
# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2022-23)

COMPUTER SCIENCE	SECCSCP01	2022-23	B.SC(MPCS,MCCS)
SEMESTER – V/VI	PAPER – VI		Max. Marks 50

# Lab List: WEB INTERFACE DESIGNING TECHNOLOGIES LAB

# No. of Hours per week: 3External: 40Internal: 10Credits: 2I. Course Outcomes: Students at the successful completion of the course will be able to:

CO1: Create a basic website with the help of HTML and CSS.(PO5)

CO2: Acquire the skill of installing word press and various plugins of Word press.(PO5)

CO3: Create a static website with the help of Word press..(PO5,PO7)

CO4: Create an interface for a dynamic website.(PO5,PO7)

CO5: Apply various themes for their websites using Word press.(PO7)

II.Practical (Laboratory) Syllabus: (30 periods)

HTML and CSS:

1. Create an HTML document with the following formatting options:

(a)Bold, (b) Italics, (c) Underline, (d) Headings (Using H1 to H6 heading styles), (e) Font (Type, Size and Color), (f) Background (Colored background/Image in background), (g) Paragraph, (h) Line Break, (i) Horizontal Rule, (j) Pre tag

2. Create an HTML document which consists of:

(a) Ordered List (b) Unordered List (c) Nested List (d) Image

3. Create a form using HTML which has the following types of controls:

(a) Text Box (b) Option/radio buttons (c) Check boxes (d) Reset and Submit buttons

4.Embed a calendar object in your web page.

5. Create an applet that accepts two numbers and perform all the arithmetic operations on them.

6. Create nested table to store your curriculum with image.

7. Create a form that accepts the information from the subscriber of a mailing system.

8. Create a help file as follows:

Web Commerce Extranet



9. Write a html program including style sheets.

10. Write a html program to layers of information in web page.

- 11. Develop a Java script to determine whether the given number is a "PERFECT NUMBER "or not.
- 12. Develop a Java script to generate "ARMSTRONG NUMBERS" between the ranges 1 to 100.
- 13. Write a java script that reads an integer and displays whether it is a prime number or not.
- 14. Write a java script which accepts the text in lower case and displays the text in upper case
- 15. Write a java script program for user name and password validation using on click event.

# Word press:

- 16. Installation and configuration of word press.
- 17. Create five pages on COVID 19 and link them to the home page.
- 18. Add an external video link with size 640 X 360.
- 19. Create a user and assign a role to him.
- 20. Create a login page to word press using custom links

# **III. Lab References:**

- 1. Web technologies by A.A.Puntambekar
- 2. Web Technologies by N.P.Gopalan, Eastern Economy Edition, 2<sup>nd</sup> edition
- 3. Word press for Beginners, Dr. Andy Williams.
- 4. Professional word press, Brad Williams, David damstra, Hanstern.

# Reference Materials on the Web/web-links:

- 1.<u>https://onlinecourses.nptel.ac.in/noc17\_cs22/course</u>
- 2.http://www.codecademy.com/tracks/web
- 3.<u>http://www.w3schools.com</u>
- 4.https://www.w3schools.in/wordpress-tutorial/

# A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE Vuyyuru-521165.NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified*

# Title of the Paper: WEB APPLICATIONS DEVELOPMENT USING PHP AND MYSQL

#### Semester: V/VI

Course Code	SECCSCT02	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2015-16	Year of Offering: 2022 -23	Year of Revision:	Percentage of Revision: 30%

Course Objective: Upon successful completion of the course, participants should be able to: List the

major elements of the PHP & MySQL work and explain why PHP is good for web development.

Learn how to take a static website and turn it into a dynamic website run from a database using PHP and MySQL.

#### Course Outcomes: Students at the successful completion of the course will be able to:

CO1	Learn basic structure and key concepts in PHP, Control statements and functions concept and related programs (PO5)
CO2	Know What is an Array concept related programs, What is an Object, various objects, Formatting strings, Date and time and related programs (PO5)
CO3	Learn importance of Forms, Combining HTML with PHP code. Importance of Cookies and Sessions related programs of forms cookies and sessions. (PO5)
CO4	Know importance of File concept in PHP how to Create, Open, Read and write data in file related programs, Knowing about Image creation, drawing, and modification image (PO7)
CO5	Know about Database concept of MySQL, Connection, Creation of Database, Table adding Record into it related programs (PO7)

# **PHP Syllabus**

### **Course Details**

Unit	Learning Units	Lecture Hours
Ι	The Building blocks of PHP : Variables, Data Types, Operators and	12
	Expressions, Constants. Flow Control Functions in PHP: Switching Flow,	
	Loops, Code Blocks and Browser Output. Working with Functions: What is	
	function? ,Calling functions, Functions, Returning the values from User-Defined	
	Functions, Variable Scope.	
II	Working with Arrays: What are Arrays?, Creating Arrays, Working with	12
	Objects Creating Objects, Object Inheritance, Working with Strings, Dates	
	and Time-Formatting strings with PHP, Investigating Strings with PHP,	
	Manipulating Strings with PHP, Using Date and Time Functions in PHP.	
TTT		1.4
111	working with Forms-Creating Forms, Accessing Form Input with User	14
	defined Afrays, Combining HTML and PHP code on a single Page, working with Cookies and User Sessions Introducing Cookies. Setting a Cookie with	
	PHD Sossion Function Overview Starting a Session Working with session	
	variables	
IV	Working with Files and Directories: Creating and Deleting Files. Opening a	12
1 4	File for Writing Reading or Appending Reading from File Writing or	12
	Appending to a File. <b>Working with Images -</b> Understanding the Image-Creation	
	Process. Drawing a New Image .Modifying Existing Images .Image Creation	
	from User Input.	
V	Interacting with MySQL using PHP -MySQL versus MySQLi Functions,	10
	Connecting to MySQL with PHP, Working with MySQL Data, Creating an	
	Online Address Book -Planning and Creating Database Tables, Creating Menu,	
	Creating Record, Addition Mechanism, Viewing Records, Creating the Record	
	Deletion Mechanism, Adding Sub-entities to a Record.	

# **Textbooks and References**

- 1. JulieC.Meloni, SAMS Teach yourself PHP MySQL and Apache, Pearson education
- 2. Steven Holzner, PHP: The Complete Reference, McGraw-Hill
- 3. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&HTML5,ThirdEditionO'reilly,2014
- 4. XueBaiMichaelEkedahl, The web warrior guide to Web Programming, Thomson (2006).
- 5. Web resources:
  - e. <u>http://www.codecademy.com/tracks/php</u>
  - f. http://www.w3schools.com/PHP
  - g. http://www.tutorialpoint.com

An Autonomous college w (With 1	Ithin the jurisdiction	of Krishna Vear 2015	University A.P, India.
COMPUTER SCIENCE	SECCSCT02	2022-23	B.SC(MPCS,MCCS)
SEMESTER – V/VI	PAPER – VI	[	Max. Marks 70
<u>Model Paper:</u> Web A <sub>l</sub>	pplications Developm	ent using P	HP & MYSQL
NO of Hours: 3	No Of Credits	: 3	Pass Marks 28
	SECTION – A	<b>L</b>	
Short Answer Questions			(4 x 5=20 Marks)
Answer any Four questions. (At lea	st 1 question should b	e given fro	m each Unit)
<ol> <li>Define Structure of PHP.(COI</li> <li>Differentiate Conditional state</li> </ol>	(,L1)	ement with	syntax (CO1 I A)
3) Define Array concept explain	about it (CO2 I 1)		symax.(CO1,L+)
<ul><li>4) Explain about Cookies concert</li></ul>	t (CO3 L2)		
5) Explain about Image creation.	(CO4.L2)		
6) Write short note on Mysgli.(C	05.L1)		
<b>5</b> -1 (-	SECTION B		
			( 5 x 10=50 Marks)
Answer all questions. (Two question	ns should be given fro	m each uni	it with internal choice)
9(a) Explain about Control Statement	s.(CO1.L2)		
	OR		
9(b) Discuss about Function define, C	Call and return value wi	th example.	.(CO1,L6)
10(a) List various types of Formatting	g strings explain them.(	CO2,L2)	
10(b) Define Array function with example	mple.( CO2,L1)		
11(a) Write names of Form objects ex	plain them with examp	ole.(CO3,L2	2)
11(b) Compare and Contrast Session a	and Cookies.(CO3,L4)		
12(a) Explain File concept about file of	creation, Open file, Wr OR	ite file and	Delete file with example(CO4,L2
12(b) Construct steps for Interfacing of	complete image concep	t explain th	em with one example.(CO4,L3)
13(a) Discuss about DDL commands	and DML commands i <b>OR</b>	n Mysqli w	ith syntaxes (CO5,L6)
13(b) Write code to Create table of Er	nployee by adding any	four colum	ins with example.(CO5,L6)

Computer Science         SECCSCP02         2022-23         B.SCMPCS,MCCS)           SEMESTER - V/VI         PAPER - VII         Max. Marks 50           Lab List: Web Applications Development using PHP & MYSQL lab         No. of flours per week: 3         External: 40         Internal: 10         Credits: 2           Course Outcomes: Students at the successful completion of the course will be able to:         Diternal: 10         Credits: 2           Solis Learn and implement important programs in PHP, Control statements and functions concept (PO5)         Sinplement Basic programs in Object, various objects, Formatting strings, Date and time (PO5)           33: Learn and implement important programs of Forms, Combining HTML with PHP code. Importa         Cookies and Sessions. (PO5)           34: Implement Database programs on MySQLi, Connection, Creation of Database, Table adding cord into it related programs (PO7)         Practical (Laboratory) Syllabus: (30 Periods): At least 8 Practical's.           1. Write a PHP program to display today's date.         3.         Strite a PHP program to display today's date.           3. Write a PHP program to generate the multiplication of two matrices.         7.         Create Website Registration form using text box, check box, radio button, select, submit button. A display user inserted value in new PHP page.           9. Write a PHP program to generate the multiplication of two matrices.         1.           1. Write a PHP program to to add, Modify, delete and fetch the rows in a Table. <td< th=""><th>An Autonomous college</th><th>within the jurisdiction</th><th>on of Krishna</th><th>University A.P, India.</th></td<>	An Autonomous college	within the jurisdiction	on of Krishna	University A.P, India.
<ul> <li>SEMESTER - V/VI PAPER - VII Max. Marks 50 Lab List: Web Applications Development using PHP &amp; MYSQL Lab</li> <li>No. of Hours per week: 3 External: 40 Internal: 10 Credits: 2</li> <li>Course Outcomes: Students at the successful completion of the course will be able to:</li> <li>D1: Learn and implement basic programs in PHP. Control statements and functions concept (PO5)</li> <li>D2: Implement Basic programs in Object, various objects, Formatting strings, Date and time (PO5)</li> <li>D3: Learn and implement important programs of Forms. Combining HTML with PHP code. Importa Cookies and Sessions. (PO5)</li> <li>D4: Implement programs on Files concept in PHP and on Image creation, drawing, and modificat age (PO5 &amp; PO7)</li> <li>D5: Implement Database programs on MySQLi, Connection, Creation of Database, Table adding cord into it related programs (PO7)</li> <li>Practical (Laboratory) Syllabus: (30 Periods): At least 8 Practical's.</li> <li>Write a PHP program to display day's date.</li> <li>Write a PHP program to display day's date.</li> <li>Write a PHP program to display day's date.</li> <li>Write a PHP program to generate the multiplication of two matrices.</li> <li>Create student registration form using text box, check box, radio button, select, submit button. / display user inserted value in new PHP page.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP script to connect to the MySQL server from your website.</li> <li>Write a PHP script to connect to the MySQL server from your website.</li> <li>Write a PHP script to connect to the MySQL server from your website.</li> <li>Write a PHP script to connect to the MySQL server from your website.</li> <li>Write a PHP scri</li></ul>	COMPUTER SCIENCE	SECCSCP02	2022-23	B.SC(MPCS,MCCS)
Lab List: Web Applications Development using PHP & MYSQL lab No. of Hours per week: 3 External: 40 Internal: 10 Credits: 2 Course Outcomes: Students at the successful completion of the course will be able to: D1: Learn and implement basic programs in PHP, Control statements and functions concept (POS) D2: Implement Basic programs in Object, various objects, Formatting strings, Date and time (POS) D3: Learn and implement important programs of Forms, Combining HTML with PHP code. Importa Cookies and Sessions. (POS) D4: Implement programs on Files concept in PHP and on Image creation, drawing, and modifical age (POS & PO7) D5: Implement Database programs on MySQLi, Connection, Creation of Database, Table adding scord into it related programs (PO7) Peractical (Laboratory) Syllabus: (30 Periods): At least 8 Practical's. 1. Write a PHP program to Display 'Hello" 2. Write a PHP program to Display Fibonacci series. 3. Write a PHP program to generate the multiplication of two matrices. 3. Write a PHP program to generate the multiplication of two matrices. 4. Write a PHP program to generate the multiplication of two matrices. 5. Create student registration form using text box, check box, radio button, select, submit button. A display user inserted value in new PHP page. 8. Create Website Registration Form using text box, check box, radio button, select, submit button Ad display user inserted value in the new PHP page. 9. Write a PHP script to demonstrate passing variables with cookies. 10. Write a PHP script to demonstrate passing variables with cookies. 11. Write a PHP script to demonstrate passing variables with cookies. 12. Develop a PHP application to implement the following Operations a. Registration of Users.b.Insert the details of the Users.c.Modify the Details. d.Transaction Maintenance. 10. Write a PHP script to connect to the MySQL server from your website. 13. Write a PHP script to connect to the MySQL server from your website. 14. Write a program to read customer information like cust-no, cust-name, item purc	SEMESTER – V/VI	PAPER – V	/II	Max. Marks 50
<ul> <li>No. of Hours per week: 3 External: 40 Internal: 10 Credits: 2</li> <li>Course Outcomes: Students at the successful completion of the course will be able to:</li> <li>Di: Learn and implement basic programs in PHP, Control statements and functions concept (PO5)</li> <li>Di: Inplement Basic programs in Object, various objects, Formatting strings, Date and time (PO5)</li> <li>D3: Learn and implement important programs of Forms, Combining HTML with PHP code. Importa Cookies and Sessions. (PO5)</li> <li>D4: Implement programs on Files concept in PHP and on Image creation, drawing, and modificat age (PO5 &amp; PO7)</li> <li>Practical (Laboratory) Syllabus: (30 Periods): At least 8 Practical's.</li> <li>Write a PHP program to Display "Hello"</li> <li>Write a PHP program to display today's date.</li> <li>Write a PHP program to display Foloacci series.</li> <li>Write a PHP program to prepare the student marks list.</li> <li>Write a PHP program to prepare the student marks list.</li> <li>Write a PHP program to generate the multiplication of two matrices.</li> <li>Create Website Registration form using text box, check box, radio button, select, submit button. A display user inserted value in new PHP page.</li> <li>Create Website Registration form using text box, check box, radio button, select, submit button. A display user inserted value in the new PHP page.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to Solay server from your website.</li> <li>Write a program to read customer information like cust-no, cust-name, item purchased, and mo no, from customer table and display all this information in table format in your website.</li> <li>Write a PHP program to ead the maper of a customer to "Kiran" with cust-no = 1, and to delete rec with cust-no-3.</li> <li>Write a PHP program to ead</li></ul>	Lab List: Web	• Applications Deve	elopment usin	g PHP & MYSQL lab
Course Outcomes: Students at the successful completion of the course will be able to: 11: Learn and implement basic programs in PHP, Control statements and functions concept (PO5) 22: Implement Basic programs in Object, various objects, Formating strings, Date and time (PO5) 33: Learn and implement important programs of Forms, Combining HTML with PHP code. Importa Cookies and Sessions(PO5) 34: Implement programs on Files concept in PHP and on Image creation, drawing, and modifical age (PO5 & PO7) 35: Implement Database programs on MySQLi, Connection, Creation of Database, Table adding cord into it related programs (PO7) <b>Practical (Laboratory) Syllabus:</b> (30 Periods): At least 8 Practical's. 1. Write a PHP program to display 'Hello'' 2. Write a PHP program to display today's date. 3. Write a PHP program to read the employee details. 5. Write a PHP program to prepare the student marks list. 6. Write a PHP program to prepare the student marks list. 6. Write a PHP program to prepare the student marks list. 6. Write a PHP program to generate the multiplication of two matrices. 7. Create student registration form using text box, check box, radio button, select, submit button. <i>A</i> display user inserted value in new PHP page. 8. Create Website Registration form using text box, check box, radio button, select, submit button. 4. Mrite a PHP program to keep track of how many times a visitor has loaded the page. 11. Write a PHP application to add, Modify, delete and fetch the rows in a Table. 12. Develop a PHP application to add, Modify, delete and fetch the user for three trials only. Delete the user if he spent more than 100 Hrs of transaction. 13. Write a program to read customer information like cust-no, cust-name, item purchased, and mo no, from customer table and display all this information in table format on the output screen. 14. Write a program to read customer information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format	No. of Hours per week: 3	External: 4	0 Intern	al: 10 Credits: 2
<ul> <li>11: Learn and implement basic programs in PHP, Control statements and functions concept (POS)</li> <li>22: Implement Basic programs in Object, various objects, Formatting strings, Date and time (POS)</li> <li>23: Learn and implement important programs of Forms, Combining HTML with PHP code. Importa Cookies and Sessions(POS)</li> <li>44: Implement programs on Files concept in PHP and on Image creation, drawing, and modifica age (PO5 &amp; PO7)</li> <li>25: Implement Database programs on MySQLi, Connection, Creation of Database, Table adding cord into it related programs (PO7)</li> <li>27: Practical (Laboratory) Syllabus: (30 Periods): At least 8 Practical's.</li> <li>1. Write a PHP program to Display "Hello"</li> <li>2. Write a PHP program to display today's date.</li> <li>3. Write a PHP program to display fibonacci series.</li> <li>4. Write a PHP program to read the employee details.</li> <li>5. Write a PHP program to prepare the student marks list.</li> <li>6. Write a PHP program to generate the multiplication of two matrices.</li> <li>7. Create student registration form using text box, check box, radio button, select, submit button. <i>A</i> display user inserted value in the new PHP page.</li> <li>9. Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>12. Develop a PHP application to implement the following Operations         <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details. d.Transaction Maintenance.</li> <li>o of times Logged in (ii). Time Spent on each login. Li. Restrict the user for three trials only.</li> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>13. Write a PHP script to connect to the MySQL server from your website.</li> <li>14. Write a program to read employee information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information using table format in your website.</li> <li>14. Write a program to edd the name of a customer to "Kiran" with cust-no</li></ul></li></ul>	<b>Course Outcomes: Students at th</b>	ie successful compl	etion of the c	ourse will be able to:
<ul> <li>12: Implement Basic programs in Object, various objects, Formatting strings, Date and time (POS) / 31: Learn and implement important programs of Forms, Combining HTML with PHP code. Importa Cookies and Sessions(PO5)</li> <li>14: Implement programs on Files concept in PHP and on Image creation, drawing, and modifica age (PO5 &amp; PO7)</li> <li>15: Implement Database programs on MySQLi, Connection, Creation of Database, Table adding cord into it related programs (PO7)</li> <li>Practical (Laboratory) Syllabus: (30 Periods): At least 8 Practical's.</li> <li>1. Write a PHP program to Display 'Hello''</li> <li>2. Write a PHP program to display fibonacci series.</li> <li>3. Write a PHP program to read the employee details.</li> <li>5. Write a PHP program to prepare the student marks list.</li> <li>6. Write a PHP program to generate the multiplication of two matrices.</li> <li>7. Create student registration form using text box, check box, radio button, select, submit button. <i>A</i> display user inserted value in new PHP page.</li> <li>8. Create Website Registration Form using text box, check box, radio button, select, submit butt And display user inserted value in the new PHP page.</li> <li>9. Write a PHP script to demonstrate passing variables with cookies.</li> <li>10. Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>12. Develop a PHP application to implement the following Operations         <ul> <li>a. Registration of Users. b. Insert the details of the Users.c.Modify the Details.</li> <li>d. Transaction Maintenance.</li> <li>o of times Logged in (ii). Time Spent on each login. Ii, Restrict the user for three trials only. Delete the user if he spent more than 100 Hrs of transaction.</li> <li>13. Write a PHP script to connect to the MySQL server from your website.</li> <li>14. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dyna</li></ul></li></ul>	1: Learn and implement basic pro	ograms in PHP, Con	trol statements	s and functions concept (POS)
<ul> <li>15. Learn and implement important programs of Portus, Combining PLINE with PPP code. Importa Cookies and Sessions. (PO5)</li> <li>14. Implement programs on Files concept in PHP and on Image creation, drawing, and modifica ge (PO5 &amp; PO7)</li> <li>Practical (Laboratory) Syllabus: (30 Periods): At least 8 Practical's.</li> <li>1. Write a PHP program to Display "Hello"</li> <li>2. Write a PHP program to display today's date.</li> <li>3. Write a PHP program to read the employee details.</li> <li>5. Write a PHP program to read the employee details.</li> <li>5. Write a PHP program to generate the multiplication of two matrices.</li> <li>6. Write a PHP program to generate the multiplication of two matrices.</li> <li>7. Create student registration form using text box, check box, radio button, select, submit button. <i>J</i> display user inserted value in new PHP page.</li> <li>8. Create Website Registration Form using text box, check box, radio button, select, submit button. <i>J</i> display user inserted value in the new PHP page.</li> <li>9. Write a PHP script to demonstrate passing variables with cookies.</li> <li>10. Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>12. Develop a PHP application to implement the following Operations <ul> <li>a. Registration of Users. b. Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> <li>o of times Logged in (ii). Time Spent on each login. Ii. Restrict the user for three trials only. Delete the user if he spent more than 100 Hrs of transaction.</li> <li>13. Write a PHP script to connect to the MySQL. server from your website.</li> </ul> </li> <li>14. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>15. Write a program to read employee information using table format in your website.</li> <li>16. Write a program to read employee information like emp-no, emp-name, designa</li></ul>	2: Implement Basic programs in C	Joject, various object	cts, Formatting	g strings, Date and time (POS)
<ul> <li>Crostes and Sessions.(CO).</li> <li>Hinplement programs on Files concept in PHP and on Image creation, drawing, and modifica age (P05 &amp; PO7)</li> <li>Finplement Database programs on MySQLi, Connection, Creation of Database, Table adding cord into it related programs (PO7)</li> <li>Practical (Laboratory) Syllabus: (30 Periods): At least 8 Practical's.</li> <li>Write a PHP program to Display "Hello"</li> <li>Write a PHP program to display today's date.</li> <li>Write a PHP program to read the employee details.</li> <li>Write a PHP program to prepare the student marks list.</li> <li>Write a PHP program to prepare the student marks list.</li> <li>Write a PHP program to generate the multiplication of two matrices.</li> <li>Create student registration form using text box, check box, radio button, select, submit button. <i>A</i> display user inserted value in new PHP page.</li> <li>Create Website Registration Form using text box, check box, radio button, select, submit but And display user inserted value in the new PHP page.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP application to implement the following Operations <ul> <li>Registration of Users.b.Insert the details of the Users.c.Modify the Details. d.Transaction Maintenance.</li> <li>Ortime a PHP script to connect to the MySQL server from your website.</li> </ul> </li> <li>Write a PHP script to connect to the MySQL server from your website.</li> <li>Write a program to read customer information like cust-no, emp-name, designation and sa from the EMP table and display all this information using table format on the output screen.</li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>Write a PHP script to Complete Reference, McGraw-Hill</li> <li>Robinson,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly. Web resources: a.http://www.codecademy.com/tracks/php</li> <li></li></ul>	Coolisies and Sessions (POS)	a programs of Forms	s, Combining	HIML WITH PHP code. Importa
<ul> <li>Ar important programs on Price Concept in FIT and on Image creation, drawing, and informed age (PO5 &amp; PO7)</li> <li>St. Implement Database programs on MySQLi, Connection, Creation of Database, Table adding cord into it related program to Display "Hello"</li> <li>Practical (Laboratory) Syllabus: (30 Periods): At least 8 Practical's.</li> <li>Write a PHP program to Display "Hello"</li> <li>Write a PHP program to display product series.</li> <li>Write a PHP program to prepare the student marks list.</li> <li>Write a PHP program to generate the multiplication of two matrices.</li> <li>Create student registration form using text box, check box, radio button, select, submit button. <i>A</i> display user inserted value in new PHP page.</li> <li>Create Website Registration Form using text box, check box, radio button, select, submit button And display user inserted value in the new PHP page.</li> <li>Write a PHP program to keep track of how many times a visitor has loaded the page.</li> <li>Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to implement the following Operations         <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> </ul> </li> <li>of times Logged in (ii).Time Spent on each login. Ii. Restrict the user for three trials only. Delete the user if he spent more than 100 Hrs of transaction.</li> <li>Write a program to read customer information like cust-no, cust-name, item purchased, and rn no, from customer table and display all this information using table format on the output screen.</li> <li>Write a program to read ennyloyee information like cust-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>Write a program to read ennyloyee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>T</li></ul>	M. Implement programs on Files	concept in PHP an	d on Image c	reation drawing and modifica
<ul> <li>b): Implement Database programs on MySQLi, Connection, Creation of Database, Table adding cord into it related programs (PO7)</li> <li>Practical (Laboratory) Syllabus: (30 Periods): At least 8 Practical's.</li> <li>1. Write a PHP program to Display 'Hello''</li> <li>2. Write a PHP program to Display 'Hello''</li> <li>2. Write a PHP program to ad the employee details.</li> <li>3. Write a PHP program to generate the multiplication of two matrices.</li> <li>3. Write a PHP program to generate the multiplication of two matrices.</li> <li>3. Create student registration form using text box, check box, radio button, select, submit button. A display user inserted value in new PHP page.</li> <li>8. Create Website Registration Form using text box, check box, radio button, select, submit but And display user inserted value in the new PHP page.</li> <li>9. Write a PHP spript to demonstrate passing variables with cookies.</li> <li>10. Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>12. Develop a PHP application to implement the following Operations <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> </ul> </li> <li>of times Logged in (ii).Time Spent on each login. Ii. Restrict the user for three trials only. Delete the user if he spent more than 100 Hrs of transaction.</li> <li>13. Write a PTP script to connect to the MySQL server from your website.</li> <li>14. Write a program to read euglay all this information in table format on the output screen.</li> <li>15. Write a program to read employee information like cust-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>14. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks an</li></ul>	PO5 & PO7	concept in The and	a on mage e	reation, drawing, and modified
<ul> <li>cord into it related programs (PO7)</li> <li>Practical (Laboratory) Syllabus: (30 Periods): At least 8 Practical's.</li> <li>1. Write a PHP program to Display "Hello"</li> <li>2. Write a PHP program to display today's date.</li> <li>3. Write a PHP program to read the employee details.</li> <li>5. Write a PHP program to generate the multiplication of two matrices.</li> <li>7. Create student registration form using text box, check box, radio button, select, submit button. <i>A</i> display user inserted value in new PHP page.</li> <li>8. Create Website Registration form using text box, check box, radio button, select, submit but Ad display user inserted value in the new PHP page.</li> <li>9. Write a PHP script to demonstrate passing variables with cookies.</li> <li>10. Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>12. Develop a PHP application to implement the following Operations <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> <li>o of times Logged in (ii).Time Spent on each login. Ii. Restrict the user for three trials only.</li> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>13. Write a Program to read customer information like cust-no, cust-name, item purchased, and no, from customer table and display all this information in table format on the output screen.</li> <li>15. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> </ul> </li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP.MySQL_JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php</li> <li>b.htt</li></ul>	5. Implement Database programs	on MySOLi Conn	ection Creation	on of Database. Table adding
<ul> <li>Practical (Laboratory) Syllabus: (30 Periods): At least 8 Practical's.</li> <li>Write a PHP program to Display "Hello"</li> <li>Write a PHP program to display today's date.</li> <li>Write a PHP program to display Fibonacci series.</li> <li>Write a PHP program to generate the employee details.</li> <li>Write a PHP program to generate the multiplication of two matrices.</li> <li>Create student registration form using text box, check box, radio button, select, submit button. <i>A</i> display user inserted value in new PHP page.</li> <li>Create Website Registration Form using text box, check box, radio button, select, submit but And display user inserted value in the new PHP page.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to implement the following Operations <ul> <li>a. Registration of Users. Dissert the details of the Users.c.Modify the Details. d.Transaction Maintenance.</li> <li>o of times Logged in (ii). Time Spent on each login. Ii. Restrict the user for three trials only. Delete the user if he spent more than 100 Hrs of transaction.</li> <li>Write a program to ead customer information like cust-no, cust-name, item purchased, and rn no, from customer table and display all this information in table format on the output screen.</li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> </ul> </li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007). <ul> <li>Steven Holzner, PHP: The Complete Reference, McG</li></ul></li></ul>	cord into it related programs (PO7	)		on of Dutabase, Tuble usung
<ol> <li>Write a PHP program to Display "Hello"</li> <li>Write a PHP program to display today's date.</li> <li>Write a PHP program to display today's date.</li> <li>Write a PHP program to read the employee details.</li> <li>Write a PHP program to generate the multiplication of two matrices.</li> <li>Create student registration form using text box, check box, radio button, select, submit button. <i>A</i> display user inserted value in new PHP page.</li> <li>Create Website Registration Form using text box, check box, radio button, select, submit but And display user inserted value in the new PHP page.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to implement the following Operations         <ul> <li>Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d. Transaction Maintenance.</li> <li>of of times Logged in (ii).Time Spent on each login. Ii. Restrict the user for three trials only.</li> </ul> </li> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php<td>Practical (Laboratory) Syllabus</td><th><b>:</b> (<b>30 Periods</b>): At</th><td>least 8 Practic</td><th>cal's.</th></li></ol>	Practical (Laboratory) Syllabus	<b>:</b> ( <b>30 Periods</b> ): At	least 8 Practic	cal's.
<ol> <li>Write a PHP Program to display today's date.</li> <li>Write a PHP program to display Fibonacci series.</li> <li>Write a PHP program to read the employee details.</li> <li>Write a PHP program to generate the multiplication of two matrices.</li> <li>Create student registration form using text box, check box, radio button, select, submit button. A display user inserted value in new PHP page.</li> <li>Create Website Registration Form using text box, check box, radio button, select, submit but And display user inserted value in the new PHP page.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to implement the following Operations         <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details. d.Transaction Maintenance.</li> <li>of times Logged in (ii).Time Spent on each login. Ii. Restrict the user for three trials only.</li> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> </ul> </li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php b.http://www.w3schools.com/PHP</li> </ol>	1. Write a PHP program to Displ	ay "Hello"		
<ol> <li>Write a PHP program to display Fibonacci series.</li> <li>Write a PHP program to read the employee details.</li> <li>Write a PHP program to generate the multiplication of two matrices.</li> <li>Create student registration form using text box, check box, radio button, select, submit button. <i>A</i> display user inserted value in new PHP page.</li> <li>Create Website Registration Form using text box, check box, radio button, select, submit but And display user inserted value in the new PHP page.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to implement the following Operations         <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> </ul> </li> <li>for of times Logged in (ii). Time Spent on each login. Ii. Restrict the user for three trials only.</li> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Write sources: a.http://www.codecademy.com/tracks/php</li> <li>b.http://www.w3schools.com/PHP</li> </ol>	2. Write a PHP Program to displa	ay today's date.		
<ol> <li>Write a PHP Program to read the employee details.</li> <li>Write a PHP program to prepare the student marks list.</li> <li>Write a PHP program to generate the multiplication of two matrices.</li> <li>Create student registration form using text box, check box, radio button, select, submit button. A display user inserted value in new PHP page.</li> <li>Create Website Registration Form using text box, check box, radio button, select, submit but And display user inserted value in the new PHP page.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP aptication to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to implement the following Operations         <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> <li>o of times Logged in (ii).Time Spent on each login. Ii. Restrict the user for three trials only.</li> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> </ul> </li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks</li></ol>	3. Write a PHP program to displa	y Fibonacci series.		
<ol> <li>Write a PHP program to prepare the student marks list.</li> <li>Write a PHP program to generate the multiplication of two matrices.</li> <li>Create student registration form using text box, check box, radio button, select, submit button. <i>A</i> display user inserted value in new PHP page.</li> <li>Create Website Registration Form using text box, check box, radio button, select, submit but And display user inserted value in the new PHP page.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP aptication to keep track of how many times a visitor has loaded the page.</li> <li>Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to implement the following Operations         <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> </ul> </li> <li>for times Logged in (ii). Time Spent on each login. Ii. Restrict the user for three trials only.</li> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>Write a PHP script to connect to the MySQL server from your website.</li> <li>Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>Steven Holzn</li></ol>	4. Write a PHP Program to read t	he employee details		
<ol> <li>6. Write a PHP program to generate the multiplication of two matrices.</li> <li>7. Create student registration form using text box, check box, radio button, select, submit button. <i>A</i> display user inserted value in new PHP page.</li> <li>8. Create Website Registration Form using text box, check box, radio button, select, submit but And display user inserted value in the new PHP page.</li> <li>9. Write a PHP script to demonstrate passing variables with cookies.</li> <li>10. Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>11. Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>12. Develop a PHP application to implement the following Operations         <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> </ul> </li> <li>13. Write a PHP script to connect to the MySQL server from your website.</li> <li>14. Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>15. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php</li> <li>b.http://www.w3schools.com/PHP</li> </ol>	5. Write a PHP program to prepa	re the student marks	list.	
<ol> <li>Create student registration form using text box, check box, radio button, select, submit button. <i>A</i> display user inserted value in new PHP page.</li> <li>Create Website Registration Form using text box, check box, radio button, select, submit but And display user inserted value in the new PHP page.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to implement the following Operations         <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> </ul> </li> <li>In Write a PHP script to connect to the MySQL server from your website.</li> <li>Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php</li> <li>b.http://www.w3schools.com/PHP</li> </ol>	6. Write a PHP program to gener	ate the multiplicatio	n of two matri	ces.
<ul> <li>display user inserted value in new PHP page.</li> <li>8. Create Website Registration Form using text box, check box, radio button, select, submit but And display user inserted value in the new PHP page.</li> <li>9. Write a PHP script to demonstrate passing variables with cookies.</li> <li>10. Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>11. Write a PHP application to implement the following Operations <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> </ul> </li> <li>10 of times Logged in (ii). Time Spent on each login. Ii. Restrict the user for three trials only.</li> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>13. Write a PHP script to connect to the MySQL server from your website.</li> </ul> <li>14. Write a program to read customer information like cust-no, cust-name, item purchased, and rn no, from customer table and display all this information in table format on the output screen.</li> <li>15. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li><b>Textbooks and References: 1.</b> JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li><b>Web resources: a.</b> http://www.codecademy.com/tracks/php</li> <li>b.http://www.w3schools.com/PHP</li>	7. Create student registration for	m using text box, ch	eck box, radio	button, select, submit button.
<ol> <li>Create Website Registration Form using text box, check box, radio button, select, submit but And display user inserted value in the new PHP page.</li> <li>Write a PHP script to demonstrate passing variables with cookies.</li> <li>Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>Develop a PHP application to implement the following Operations         <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details. d.Transaction Maintenance.</li> <li>of times Logged in (ii).Time Spent on each login. Ii. Restrict the user for three trials only.</li> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>Write a PHP script to connect to the MySQL server from your website.</li> </ul> </li> <li>Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php b.http://www.w3schools.com/PHP</li> </ol>	display user inserted value in	new PHP page.		
<ul> <li>And display user inserted value in the new PHP page.</li> <li>9. Write a PHP script to demonstrate passing variables with cookies.</li> <li>10. Write a program to keep track of how many times a visitor has loaded the page.</li> <li>11. Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>12. Develop a PHP application to implement the following Operations <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> </ul> </li> <li>10 of times Logged in (ii). Time Spent on each login. Ii. Restrict the user for three trials only. Delete the user if he spent more than 100 Hrs of transaction.</li> <li>13. Write a PHP script to connect to the MySQL server from your website.</li> <li>14. Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>15. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.<u>http://www.codecademy.com/tracks/php</u></li> <li>b.<u>http://www.w3schools.com/PHP</u></li> </ul>	8. Create Website Registration F	form using text box.	, check box, 1	adio button, select, submit but
<ol> <li>9. Write a PHP script to demonstrate passing variables with cookies.</li> <li>10. Write a program to keep track of how many times a visitor has loaded the page.</li> <li>11. Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>12. Develop a PHP application to implement the following Operations         <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> </ul> </li> <li>13. Write a PHP script to connect to the details of the user for three trials only.</li> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>14. Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>15. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php</li> <li>b.http://www.w3schools.com/PHP</li> </ol>	And display user inserted valu	e in the new PHP pa	ige.	
<ul> <li>10. Write a program to keep track of now many times a visitor has loaded the page.</li> <li>11. Write a PHP application to add, Modify, delete and fetch the rows in a Table.</li> <li>12. Develop a PHP application to implement the following Operations <ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details.</li> <li>d.Transaction Maintenance.</li> </ul> </li> <li>10. of times Logged in (ii).Time Spent on each login. Ii. Restrict the user for three trials only. Delete the user if he spent more than 100 Hrs of transaction.</li> <li>13. Write a PHP script to connect to the MySQL server from your website.</li> <li>14. Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>15. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.<u>http://www.codecademy.com/tracks/php</u></li> <li>b.<u>http://www.w3schools.com/PHP</u></li> </ul>	9. Write a PHP script to demonst	rate passing variable	es with cookie	S.
<ol> <li>Write a PHP application to add, wouldy, delete and retch the rows in a Fable.</li> <li>Develop a PHP application to implement the following Operations         <ul> <li>Registration of Users.b.Insert the details of the Users.c.Modify the Details. d.Transaction Maintenance.</li> <li>Io of times Logged in (ii). Time Spent on each login. Ii. Restrict the user for three trials only.</li> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>Write a PHP script to connect to the MySQL server from your website.</li> <li>Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> </ul> </li> <li>Write a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php b.http://www.w3schools.com/PHP</li> </ol>	10. Write a program to keep track	d Modify doloto and	d fotob the roy	baded the page.
<ul> <li>a. Registration of Users.b.Insert the details of the Users.c.Modify the Details. d.Transaction Maintenance.</li> <li>lo of times Logged in (ii). Time Spent on each login. Ii. Restrict the user for three trials only. Delete the user if he spent more than 100 Hrs of transaction.</li> <li>13. Write a PHP script to connect to the MySQL server from your website.</li> <li>14. Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>15. Write a program to edit the name of a customer to "Kiran" with cust-no =1, and to delete rec with cust-no=3.</li> <li>16. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php b.http://www.w3schools.com/PHP</li> </ul>	12 Develop a PHP application to au	implement the follow	ving Operatio	vs III a Table.
<ul> <li>d.Transaction Maintenance.</li> <li>lo of times Logged in (ii). Time Spent on each login. Ii. Restrict the user for three trials only.</li> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>13. Write a PHP script to connect to the MySQL server from your website.</li> <li>14. Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>15. Write a program to edit the name of a customer to "Kiran" with cust-no =1, and to delete recovirt with cust-no=3.</li> <li>16. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php</li> <li>b.http://www.w3schools.com/PHP</li> </ul>	a Registration of Users	h Insert the details o	f the Users c N	Modify the Details
<ul> <li>Jo of times Logged in (ii). Time Spent on each login. Ii. Restrict the user for three trials only. Delete the user if he spent more than 100 Hrs of transaction.</li> <li>13. Write a PHP script to connect to the MySQL server from your website.</li> <li>14. Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>15. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>16. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php</li> <li>b.http://www.w3schools.com/PHP</li> </ul>	d Transaction Maintenanc	ve		violity the Details.
<ul> <li>Delete the user if he spent more than 100 Hrs of transaction.</li> <li>13. Write a PHP script to connect to the MySQL server from your website.</li> <li>14. Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>15. Write a program to edit the name of a customer to "Kiran" with cust-no =1, and to delete rec with cust-no=3.</li> <li>16. Write a program to read employee information like emp-no, emp-name, designation and sat from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.<u>http://www.codecademy.com/tracks/php</u></li> <li>b.<u>http://www.w3schools.com/PHP</u></li> </ul>	o of times Logged in (ii). Time Sp	ent on each login. Ii.	Restrict the u	ser for three trials only.
<ol> <li>Write a PHP script to connect to the MySQL server from your website.</li> <li>Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>Write a program to edit the name of a customer to "Kiran" with cust-no =1, and to delete red with cust-no=3.</li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php</li> <li>b.http://www.w3schools.com/PHP</li> </ol>	Delete the user if he spent more th	han 100 Hrs of trans:	action.	
<ol> <li>Write a program to read customer information like cust-no, cust-name, item purchased, and m no, from customer table and display all this information in table format on the output screen.</li> <li>Write a program to edit the name of a customer to "Kiran" with cust-no =1, and to delete red with cust-no=3.</li> <li>Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.http://www.codecademy.com/tracks/php</li> <li>b.http://www.w3schools.com/PHP</li> </ol>	13. Write a PHP script to connect	to the MySQL serve	r from your w	vebsite.
<ul> <li>no, from customer table and display all this information in table format on the output screen.</li> <li>15. Write a program to edit the name of a customer to "Kiran" with cust-no =1, and to delete red with cust-no=3.</li> <li>16. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li><b>Textbooks and References: 1.</b> JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li><b>Web resources:</b> a.<u>http://www.codecademy.com/tracks/php</u></li> <li>b.<u>http://www.w3schools.com/PHP</u></li> </ul>	14. Write a program to read custo	omer information lik	e cust-no, cus	st-name, item purchased, and m
<ul> <li>15. Write a program to edit the name of a customer to "Kiran" with cust-no =1, and to delete red with cust-no=3.</li> <li>16. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li><b>Textbooks and References: 1.</b> JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.<u>http://www.codecademy.com/tracks/php</u></li> <li>b.<u>http://www.w3schools.com/PHP</u></li> </ul>	no, from customer table and di	isplay all this inform	ation in table	format on the output screen.
<ul> <li>with cust-no=3.</li> <li>16. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.<u>http://www.codecademy.com/tracks/php</u></li> <li>b.<u>http://www.w3schools.com/PHP</u></li> </ul>	15. Write a program to edit the n	ame of a customer t	to "Kiran" wi	th cust-no $=1$ , and to delete red
<ul> <li>16. Write a program to read employee information like emp-no, emp-name, designation and sa from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li><b>Textbooks and References: 1.</b> JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li><b>Web resources:</b> a.<u>http://www.codecademy.com/tracks/php</u></li> <li>b.<u>http://www.w3schools.com/PHP</u></li> </ul>	with cust-no=3.			
<ul> <li>from the EMP table and display all this information using table format in your website.</li> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li><b>Textbooks and References: 1.</b> JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li><b>Web resources:</b> a.<u>http://www.codecademy.com/tracks/php</u></li> <li>b.<u>http://www.w3schools.com/PHP</u></li> </ul>	16. Write a program to read emp	oloyee information	like emp-no,	emp-name, designation and sat
<ul> <li>17. Create a dynamic web site using PHP and MySQL.</li> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.<u>http://www.codecademy.com/tracks/php</u></li> <li>b.<u>http://www.w3schools.com/PHP</u></li> </ul>	from the EMP table and displa	y all this information	n using table f	format in your website.
<ul> <li>Textbooks and References: 1. JulieC.Meloni,SAMS Teach yourself PHP MySQL and Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.<u>http://www.codecademy.com/tracks/php</u></li> <li>b.<u>http://www.w3schools.com/PHP</u></li> </ul>	17. Create a dynamic web site usir	ng PHP and MySQL	•	
<ul> <li>Apache, Pearson Education(2007).</li> <li>1. Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.<u>http://www.codecademy.com/tracks/php</u></li> <li>b.<u>http://www.w3schools.com/PHP</u></li> </ul>	Textbooks and References:	1. JulieC.Meloni,SA	MS Teach yo	urself PHP MySQL and
<ol> <li>Steven Holzner, PHP: The Complete Reference, McGraw-Hill</li> <li>RobinNixon,LearningPHP,MySQL,JavaScript,CSS&amp;HTML5,ThirdEditionO'reilly.</li> <li>Web resources: a.<u>http://www.codecademy.com/tracks/php</u></li> <li><u>http://www.w3schools.com/PHP</u></li> </ol>	Anache Pearson Education(2)		5	
2. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&HTML5,ThirdEditionO'reilly. Web resources: a. <u>http://www.codecademy.com/tracks/php</u> b. <u>http://www.w3schools.com/PHP</u>	1 $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$	007).		
Web resources: a. <u>http://www.codecademy.com/tracks/php</u> b. <u>http://www.w3schools.com/PHP</u>	1. Steven Holzner, PHP: The (	007). Complete Reference	, McGraw-Hil	1
b. <u>http://www.w3schools.com/PHP</u>	1. Steven Holzner, PHP: The ( 2. RobinNixon,LearningPHP,)	007). Complete Reference MySQL,JavaScript,C	, McGraw-Hil CSS&HTML5	l ,ThirdEditionO'reilly.
	1. Steven Holzner, PHP: The ( 2. RobinNixon,LearningPHP,) Web resources: a. <u>http://www</u>	007). Complete Reference MySQL,JavaScript, 7.codecademy.com/t	, McGraw-Hil CSS&HTML5 <u>racks/php</u>	l ,ThirdEditionO'reilly.
	1. Steven Holzner, PHP: The 2. RobinNixon,LearningPHP, Web resources: a. <u>http://www.b.http://www.w3schools.com/</u>	007). Complete Reference, MySQL,JavaScript,C <u>z.codecademy.com/t</u> <u>PHP</u>	, McGraw-Hil CSS&HTML5 <u>racks/php</u>	l ,ThirdEditionO'reilly.
	1. Steven Holzner, PHP: The ( 2. RobinNixon,LearningPHP, Web resources: a. <u>http://www</u> b. <u>http://www.w3schools.com/</u>	007). Complete Reference MySQL,JavaScript, v.codecademy.com/t PHP	, McGraw-Hil CSS&HTML5 <u>racks/php</u>	l ,ThirdEditionO'reilly.

# A.G & S.G.SIDDHARTHA DEGREE COLLEGE OFARTS & SCIENCE Vuyyuru-521165.NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* Title of the Paper: BIG DATA ANALYTICS USING R

#### Semester: V/VI

Course Code	SECCAT01	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022-23	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** Big data analytics examines large amounts of data to uncover hidden patterns, correlations and other insights. With today's technology, it's possible to analyze your data and get answers from it almost immediately – an effort that's slower and less efficient with more traditional business intelligence solutions.

#### **Course Outcomes:**

CO <sub>1</sub>	Understand data and classification of digital data. (PO5)
CO2	Gain knowledge of technologies used in bigdata Analytics. (PO5, PO7)
CO3	Understand basics of R and control structures in R. (PO5)
CO4	Load data into R objects and manipulate them as needed. (PO5)
CO5	Create and edit visualizations with R (PO7)

#### Syllabus

**Course Details** 

Unit	Learning Units	Lecture Hours
		110415
Ι	Introduction to Big data: What is data, Classification of Digital Data-Structured	12
	Unstructured, semi-structured data, Characteristics of data, Evaluation of big data,	
	Definition and challenges of big data, what is big data and why to use big data?	
II	<b>Big data Analytics:</b> What is and isn't big data analytics? Classification of analytics, Importance of big data analytics, Technologies needed to meet challenges of big data, data science, Data scientist	12
III	Introduction to R and getting started with R: What is R? Why R? Advantages of	14
	R over other programming languages, Data types in R - logical, numeric, integer,	
	character, double, Complex, raw, coercion, ls () command, Expressions, Variables	
	and functions, control structures, Array, Matrix, Vectors, Factors, R packages	
IV	Exploring data in R- Data frames-data frame access, Ordering data frames,	12
	functions for data frames dim(), nrow(), ncol(), str(), summary(), names(), head(),	
	tail(), edit(), Load data frames-reading from .CSV files, Sub setting data frames,	
	reading from tab separated value files, Reading from tables, merging data frames	
V	Data Visualization using R: Reading and getting data into R (External	10
	Data), Using CSV files, XML files, Web Data, JSON files, Databases, Excel files,	
	Working with R Charts and Graphs: Histograms, Boxplots, Bar Charts, Line	
	Graphs, Scatter plots, Pie Chart	

# **Prescribed Text Book**:

1. Seema Acharya--Data Analytics using R, McGraw Hill education (India) Private Limited.

2. Big Data Analytics, Introduction to Hadoop, Spark, and Machine-Learning, Raj Kamal, PreetiSaxena,

McGraw Hill, 2018

# **Reference Books**:

1. SeemaAcharya, SubhashiniChellappan --- Big Data and Analytics second edition, Wiley

2. Big Data, Big Analytics: Emerging Business intelligence and Analytic trends for Today's Business, Michael Minnelli, Michelle Chambers, and AmbigaDhiraj, John Wiley & Sons, 2013

3. An Introduction to R, Notes on R: A Programming Environment for Data Analysis and Graphics. W. N. Venables, D.M. Smith and the R Development Core Team

**Course Focus:** R for data science focuses on the language's statistical and graphical uses. When you learn R for data science, you'll learn how to use the language to perform statistical analyses and develop data visualizations. R's statistical functions also make it easy to clean, import and analyze data.

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

	Enect nom Acade		
COMPUTER SCIENCE	SECCAT01	2022-23	B.COM (CA)
SEMESTER – V/VI	PAPER – V	Ί.	Max. Marks 70
Model Paper: <b>B</b>	IGDATA ANALY	FICS USING	R
NO of Hours: 3	No Of Credits: 3		Pass Marks 28
	<u>Secti</u>	on-A	
t least 1 questions. t least 1 question should be What is big data and why to What is big data analytics? Explain ls () command in R Write a short note on charts Develop R script to load da Write about the control strue	e given from each U o use a big data? (CO (CO2, L1) c. (CO3, L2) s. (CO5, L1) ta into data frames f actures in R with exa Section-	J <b>nit)</b> D1, L1) From files. (CO Imples. (CO3, 1 <u>B</u>	( <b>4 x 5=20Marl</b> ( <b>4</b> , L6) L1)
swer all questions. wo questions should be give	en from each unit w	vith internal cl	(5X10=50Ma hoice)
a) Give Classification of Dig	ital Data and explain	n it. (CO1, L2)	
b) Explain Characteristics of	Data with an examp	ole. (CO1, L2)	
(a) Write about Importance ( (b) Explain Classification of	of big Data Analytic ( Analytics. (CO2, L	s. (CO2, L1) D <b>R</b> 2)	
.(a) Write about the Data type	es in Explain with ex	kamples. (CO3 <b>)R</b>	, L1)
(b) Construct Vector in R an	d explain various op	perations on it.	(CO3, L3)
<ul><li>(a) What are the data frames</li><li>(b) Demonstrate various fundamental</li></ul>	s? Write its significa ( ctions used in data f	nce in R-Lang D <b>R</b> rames. (CO4, I	uage. (CO4, L1) L2)
(a) Build a code in R for read	ding and getting data	a into R from d	latabases. (CO5, L6)

### OR

(b) Develop below plots in R (CO5, L6)

a) Box Whisker plots b)Scatter plots c)Pairs plots

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-21)

COMPUTER SCIENCE	SECCAP01	2022-23	B.COM (CA)
SEMESTER – V/VI	PAPER – VI		Max. Marks 50
Title: <b>I</b>	BIG Data Analysis	using Python	lab
No. of Hours per week: 2	External: 40 Inte	rnal: 10 Cr	edits: 2 Pass Marks 20
I. Course Outcomes: Students at the	e successful comple	etion of the co	urse will be able to:
CO1: Implement simple scripts or pro	grams in R. (PO5)		
CO2: Access online resources for R at	nd import new func	tion packages i	nto the R workspace. (PO5, PO7)
CO3: Import, review, manipulate and	summarize data-se	ts in R (PO5, P	O7)
CO4: Explore data-sets to create testal	ble hypotheses and	identify approp	priate statistical tests. (PO5, PO7)
CO5: Create and edit visualizations w	ith R. (PO5, PO7)		
II: Practical (Laboratory) Syllabus:	(30 Periods)		
1. Create a vector in R and perform of	perations on it (arith	nmetic operatio	ns, combining
Vectors, retrieving elements of vec	tor, assign names to	o vector elemen	nts).
2. Create integer, complex, logical, cl	naracter data type of	bjects in R and	print their values
And their class using print and clas	ss functions.		
3. Create a matrix of values in R and	extract data from m	atrix. (Ex. Sec	ond row thirdetc.)
find transpose of matrix and combi	ne two matrices usi	ing Rbind and (	Cbind functions.

- 4. Create a list in R and perform operations on it like list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function.
- 5. Create data frame in R and perform operations on it
- 6. Write code in R to find out whether a number is prime or not.
- 7. Print numbers from 1 to 100 using while loop and for loop in R.
- 8. Find the factorial of a number using recursion in R.
- 9. Perform arithmetic operations in R using switch case
- 10. Write a code in R to find out whether the number is Armstrong or not.
- 11. Program to find Multiplication table from 1 to 10 number input by user.
- 12. Import data into R from text and excel files using read.table() and read.csv() function.
- 13.Create a dataset and draw different types of graphics using plot, box plot, histogram, pair plot functions.
- 14. Create a dataset and draw different types of graphs using bar charts, pie chart functions.
- 15. Create custom contingency in R and perform operations on it.

# **III. Lab References:**

I.

1. Seema Acharya--Data Analytics using R, McGraw Hill education (India) Private Limited.

2. Big Data Analytics, Introduction to Hadoop, Spark, and Machine-Learning, Raj kamal,

PreetiSaxena, McGraw Hill, 2018

# **Reference Materials on the Web/web-links:**

1. <u>https://www.wilev.com/enbd/Big+Data,+Big+Analytics:+Emerging+Business+Intelligence+and+</u> Analytic+Trends+for+Today's+Businesses-p-9781118147603

Vuyyuru-521165.NAAC reaccredited at 'A' level

# Autonomous -ISO 9001 – 2015 Certified

### Title of the Paper: Data Science using Python

### Semester: V/VI

Course Code	SECCAT07	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022- 23	Year of Offering: 2022 - 23	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** The main objective of the course is to provide students with the basic concepts of Python, its syntax, functions and packages to enable them to write scripts for data manipulation and analysis. The course develops skills of writing and running a code using Python.

### Course Outcomes: Students at the successful completion of the course will be able to:

CO <sub>1</sub>	Understand the need and importance of data science.(PO5,PO7)
CO <sub>2</sub> Understand basic concepts of python and implementing control structures python.(PO5)	
CO <sub>3</sub>	Implement strings and other data structures in python(PO5,PO7)
CO <sub>4</sub>	Learn and Implement functions and modules in python.(PO5)
CO <sub>5</sub>	Learn and Implement data cleaning and plotting using pandas.(PO5,PO7)

# **Course Details**

Unit	Learning Units	Lecture Hours
Ι	<b>INTRODUCTION TODATA SCIENCE</b> Data science and its importance, Advantages of data science, The process of data science, Responsibilities of a data scientist, Qualifications of data scientists, Would you be a good data scientist?, Why to use python for data science?	12
II	<b>INTRODUCTION TO PYTHON</b> What is python?, Features of python, History of python, Writing and executing the python program, Basic syntax, Variables, Keywords, Data types, Operators, Indentation, Control Structures-Conditional statements—If, If-else, Nested if-else, Looping statements—For, While, Nested Loops, Break, Continue, Pass	12
III	<b>STRINGS AND DATA STRUCTURES</b> Strings - definition, accessing, slicing and basic operations, Lists - introduction, accessing list, operations, working with lists, functions and methods, Tuples - introduction, accessing tuple, operations, Dictionaries- introduction, accessing values in dictionaries, working with dictionaries.	14
IV	<b>FUNCTIONSANDMODULES</b> Functions- Defining a function, Calling a function, Types of functions, Function arguments, Local and global variables, Lambda and recursive functions, ModulesMath, Random, OS, Date and Time	10
V	<b>PANDAS</b> What is Pandas?, Series, Data Frame, Read CSV Files, Analyzing Data Frames, Data Correlations, Data CleaningEmpty cells, Data in wrong format, Wrong data, Duplicates, Pandas Plotting plot () method, bar plot, hist plot, box plot, area plot, scatter plot, pie plot	12

**Syllabus** 

# **Prescribed Books:**

- 1. Steven cooper--- Data Science from Scratch, Kindle edition
- 2. Reemathareja—Python Programming using problem solving approach, Oxford Publication

# **Reference Books:**

1.Wes McKinney--- Python for Data Analysis ,O'REILLY

	AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.					
An Autonomous college within the jurisdiction of Krishna University A.P, India.						
	(With I	Effect from Acade	nic Year 2022	-23)		
	COMPUTER SCIENCE	SECCAT07	2022-23	B.COM (CA)		
	SEMESTER – V/VI	PAPER – VI	[	Max. Marks 70		
	Model Paper: Data Analysis using Python					
ľ	NO of Hours: 3	No Of Cred	its: 3	Pass Marks 28		
		<u>Sectio</u>	<u>n – A</u>			
Answer	any Four questions.					
(At leas	t 1 question should be given	from each Unit)		(4 x 5=20Marks)		
1. Write	advantages of data science. (	CO1, L1)				
2. What	are the qualifications of data	scientist? (CO1, L2)	)			
3. Expla	in about the history of python	.(CO2, L1)				
4. Expla	in about string operations in p	ython.(CO3, L1)				
5. Expla	in about the date and time mo	dule in python.(CO	4, L1)			
6. What	is data cleaning? Explain abo	ut duplicates in pan	das.(CO5, L1)			
		Sectio	<u>n – B</u>			
Answer all questions. (Two questions should be given from each unit with internal choice) (5x10=50Marks) 9. (a) What is Data Science? Explain the Responsibilities of a data scientist.(CO1, L2) OR						
9. (b) Explain the use of python for data science?(CO1, L1)						
10. (a) Explain different types of conditional statements with examples.(CO2, L1) <b>OR</b>						
10. (b) E	Explain different types of Loop	ping statements with	n examples.(CO	D2, L1)		
11. (a) What is a list? Explain different operations of lists with examples in python. (CO3, L2) <b>OR</b>						
11. (b)W	What is a Dictionary? Explain a	accessing values in	it with example	es in python (CO3, L2)		
12. (a) Explain Function definition, calling & different types in python with example.(CO4, L1) <b>OR</b>						
12. (b) Explain about random and math module in python with an example.(CO4, L1)						

13. (a) What is a data frame? Illustrate the concept of analysing the data frames.(CO5, L2)

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Vear 2022-23)

	(vvitii).	Effect from Acade		-43)	
	COMPUTER SCIENCE	SECCAP07	2022-23	B.COM (CA)	
SEMESTER – V/VI		PAPER – V	II	Max. Marks 50	
	Lab List: I	DATASCIENCE U	SING PYTHO	N LAB	
l	No. of Hours per week: 2	External: 40	Internal: 10	Credits: 2	
<b>I. Cour</b> CO1: In CO2: I CO3: In CO4:Im <b>II: Pra</b>	<ul> <li>I. Course Outcomes: Students at the successful completion of the course will be able to:</li> <li>CO1: Implement simple programs in basics of python.(PO5)</li> <li>CO2: Implement control structures in python.(PO5)</li> <li>CO3: Implement data structures like strings, list, tuples, dictionaries in python.(PO5,PO7)</li> <li>CO4:Implementation of data frames, data cleaning and plotting in pandas.(PO5,PO7)</li> </ul>				
1. Pytho	on Program to Find the Square	e Root			
2. Pytho	on Program to Swap Two Var	iables			
3. Pytho	on Program to Generate a Ran	dom Number			
4. Pytho	on Program to check if a Num	ber is odd or Even			
5. Pytho	on Program to Find the Larges	t Among Four Num	nbers		
6. Pytho	on Program to Check Prime N	umber			
7. Pytho	on Program to Display the mu	ltiplication Table			
8. Pytho	on Program to Print the Fibona	acci sequence			
9. Pytho	on Program to Check Armstro	ng Number			
10. Pytł	non Program to Find the Sum	of Natural Numbers	5		
11. Pytł	non Program to Make a Simple	e Calculator			
12. Pytł	non Program to Find Factorial	of Number Using F	Recursion		
13. Pytł	non Program to Add Two Mat	rices			
14. Pytł	non Program to Multiply Two	Matrices			
15. Pytł	15. Python Program to Check Whether a String is Palindrome or Not				
16. Python Program to perform operations on strings.					
17. Pytł	17. Python Program to create a list and perform operations on its contents.				
18. Pytł	18. Python Program to perform operations on tuples.				
19. Pytł	non Program to create a dictio	nary and print its co	ontent.		
20. Pytł	non program to import data fro	om CSV file using p	bandas.		
21. Pytł	non program to demonstrate p	lots			
III. Lal	III. Lab References:				
I. Ree	mathareja—Python Programn	ning using problem	solving approac	ch,Oxford Publication	

# **Reference Materials on the Web/web-links:**

1. <u>https://www.w3schools.com/python/</u>

I.

2. https://www.geeksforgeeks.org/python-basics/

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

# Title of the Paper: Object Oriented Programming Using JAVA

Semester: IV	PAPER-IV		
	B. Sc.		
Offered To:	(MPCS.MCCS,MSCS)	<b>Course Code:</b>	CSCT01
			Object Oriented
			Programming using
Course Type:	Core (Theory)	Course:	Java
Year of			
Introduction:	2016 - 2017	Year of offering:	2021 - 2022
		Percentage of	
Year of Revision:	2021	Revision:	15 %
Semester:	IV	Credits:	4
Hours Taught:	60 hrs. per semester	Max. Time:	3 Hrs

Course Prerequisites (if any): Programming Concepts.

**Course Description:** As the business environment becomes more sophisticated, the software development (software engineering is about managing complexity) is becoming increasingly complex. As of the best programming paradigm which helps to eliminate complexity of large projects, Object Oriented Programming (OOP) has become the predominant technique for writing software in the past decade. Many other important software development techniques are based upon the fundamental ideas captured by object-oriented programming.

# **Course Objectives:**

1. Understand the features of Object Oriented Programming.

2. Understand features of Java programming language.

3. Know how to write and execute java programs in text editors.

4. Apply polymorphism, inheritance, multithreading, exception handling mechanism and packages in real life applications.

5. Write and read data from the files using streams, file handling methods and understand JDBC to perform database operations.

**Course Outcomes:** At the end of this course, students should be able to:

CO1: Understand the concept and underlying principles of Object-Oriented Programming, Understand how object-oriented concepts are incorporated into the Java programming language. (PO5, PO7).

CO2: Implement Object Oriented Programming Concepts (class, constructor, overloading, inheritance, overriding) in java. (PO5, PO7).

CO3: Analyse inheritance and interfaces in a Java program (PO5, PO7).

CO4: Evaluate Multithreading, exception handling in Java. (PO5, PO7).

CO5: Create applets and packages in a Java program, Use of Input/output Streams in java and use of JDBC with Oracle database. (PO5, PO7).

	Syllabus			
Unit	Learning Units	Lecture Hours		
Ι	<ul> <li>Fundamentals Of Object – Oriented Programming: Introduction, Object Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Applications of OOP, Java features</li> <li>Overview Of Java Language: Introduction, Simple Java program structure, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments</li> <li>Constants, Variables &amp; Datatypes: Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Symbolic Constants, Type casting, Getting Value of Variables, Standard Default values</li> <li>Operators &amp; Expressions</li> </ul>	10		
Π	<b>Decision Making &amp; Branching:</b> Introduction, Decision making with if statement, Simple if statement, If - Else statement, Nesting of if- else statements, The else if ladder, The switch statement, The conditional operator. <b>Looping:</b> Introduction, The While statement, The do-while statement, The for statement, Jumps in loops. <b>Classes, Objects &amp; Methods:</b> Introduction, Defining a class, Adding variables, Adding methods, Creating objects, Accessing class members, Constructors, Method overloading, Static members, Nesting of methods.	12		
III	Inheritance: Extending a class, Overloading methods, Final variables and methods, Final classes, Abstract methods and classes. Arrays, Strings: Arrays, One-dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Wrapper classes. Interfaces: MULTIPLE INHERITANCE: Introduction, Defining interfaces, Extending interfaces Implementing interfaces Assessing interface variables	12		
IV	<ul> <li>Multithreaded Programming: Introduction, Creating Threads, Extending the Threads, Stopping and Blocking a Thread, Lifecycle of a Thread, Using Thread Methods, Thread Exceptions, Thread Priority, Synchronization, Implementing the 'Runnable' Interface.</li> <li>Managing Errors And Exceptions: Types of errors, Compile-time errors, Run-time errors, Exceptions, Exception handling, Multiple Catch Statements, Using finally statement.</li> <li>Packages: Introduction, Java API Packages, Creating Packages, Accessing a Package.</li> </ul>	13		
V	<ul> <li>Applet Programming: Local and remote applets, Applets and Applications, Building Applet code, Applet Life cycle: Initialization state, Running state, Idle or stopped state, Dead state, Display state.</li> <li>Managing Input/Output Files In Java: Introduction, Concept of Streams, Stream classes, Byte Stream Classes, Character Stream classes: Reader stream classes, Writer Stream classes, Reading and writing files.</li> <li>Java Database Connectivity: JDBC introduction, Stages in JDBC Program, Working with Oracle Database: Inserting, Deleting and Updating records.</li> </ul>	13		

# **Text Books:**

- 1. Programming with Java, E Balagurusamy, 3e, TMH.
- 2. Core Java: An Integrated Approach, Dr. R. Nageswara Rao & KogentLearning Solutions Inc.

# **Reference Books:**

- 1. Programming with Java, 2ed, John R. Hubbard, Schaum's outline Series, TMH
- 2. Deitel & Deitel, Java TM : How to program, PHI(2007)

**Course Delivery method:** Face-to-face / Blended **Course has focus on:** Employability **Websites of Interest:** 

- [1].<u>https://www.javatpoint.com/java-tutorial</u>
- [2].<u>https://www.w3schools.com/java/</u>
- [3].<u>https://www.tutorialspoint.com/jdbc/index.htm</u>

**Co-curricular Activities :** Programming Contests, Assignments & Quiz.

@@@@@

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### OBJECT ORIENTED PROGRAMMING USING JAVA MODEL PAPER

CLASS: B.Sc. (MPCS, MCCS, MSCS) Course Code: CSCT01 Semester: IV Max. Marks: 75M Min. Pass: 30M Time: 3 Hours

#### Section-A

# ANSWER ANY FIVE QUESTIONS

- 5x5M=25M
- 1. Explain structure of java program.(CO1, L2)
- 2. Define a class and add methods, variables to it and create objects for it. (CO2,L1)
- 3. Explain constructors in java with example. (CO2,L2)
- 4. Explain any five string handling methods in java.(CO3, L2)
- 5. Illustrate implementing interfaces in java with example. (CO3,L2)
- 6. Illustrate creating threads in java with example .(CO4,L2)
- 7. Illustrate Arithmetic Exception in java with example.(CO4, L2)
- 8. Explain byte stream classes in java. (CO5, L2)

# Section-B

#### 5x10M=50M

5M

5M

9. (A) Explain Object Oriented Programming Principles. (CO<sub>1</sub>,L2)

#### (**OR**)

(B) Explain Java Buzz words. (CO1, L2)

- 10. (A) Explain the following with programs (CO2, L2)
  - i. Method Overloading

**ANSWER THE FOLLOWING QUESTIONS** 

ii. Abstract classes

#### (OR)

(B) Explain the concept of static members in java with an example. (CO2,L2)

11. (A) Explain the concept of final keyword with an example. (CO3,L2)

#### (**OR**)

(B) List of different types of inheritance in java with examples. (CO3,L4)

12. (A) Explain life cycle of a thread with neat diagram. (CO4,L2)

#### (OR)

(B) Define Exception. Explain Exception handling mechanism in java with examples (CO4, L1,L2)

13. (A) Explain creating and accessing package in java with example. (CO5,L2) (OR)

(B) Explain different stages in JDBC program with an example..(CO5,L6)

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified OBJECT ORIENTED PROGRAMMING USING JAVA BLUE PRINT

CLASS: B.Sc. (MPCS, MCCS, MSCS) Course Code: CSCT01 Semester: IV Max. Marks: 75M Min. Pass: 30M Time: 3 Hours

5x5M=25M

#### Section-A

#### ANSWER <u>ANY FIVE</u> QUESTIONS

1.	UNIT -1	5M
2.	UNIT -2	5M
3.	UNIT -2	5M
4.	UNIT -3	5M
5.	UNIT -3	5M
6.	UNIT -4	5M
7.	UNIT -4	5M
8.	UNIT -5	5M

# Section-B

#### **ANSWER THE FOLLOWING QUESTIONS**

5x10M=50M

- 9	UNIT -1		10!
		OR	101
	UNIT -1		10]
10.	UNIT -2		10]
		OR	
	UNIT -2		10
11.	UNIT -3		10
		OR	
	UNIT -3		10
12.	UNIT -4		10
		OR	
	UNIT -4		10
13.	UNIT -5		10
		OR	
	UNIT -5		10

### Vuyyuru-521165. NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* **Object Oriented Programming Using JAVA Lab**

**SEMESTER-IV** 

PAPER-IV

	B. Sc.		
Offered To:	(MPCS,MCCS,MSCS)	<b>Course Code:</b>	CSCP01
			Object Oriented
			Programming using
<b>Course Type:</b>	Core (Practical)	Course:	Java Lab
Year of			
Introduction:	2016 - 2017	Year of offering:	2021 - 2022
		Percentage of	
Year of Revision:	2021	<b>Revision:</b>	15%
Semester:	IV	Credits:	1
Hours Taught:	30 hrs. per semester	Max. Time:	3 Hrs

Course Prerequisites (if any): Knowledge in OOP & Java concepts, Programming Fundamentals

# **Course Objective:**

To enable students to implement various OOP concepts using Java programming language and also educating students in accessing databases using JDBC connectivity.

Course Outcomes: At the end of this course, students should be able to:

- CO1: Implementing class, constructor, method overloading, method overriding in java. (PO5, PO7)
- CO2: Implement different types of inheritance and interfaces in a Java program .(PO5, PO7)
- CO3: Implement Multithreading, exception handling mechanisms in Java. (PO5, PO7)
- CO4: Implement Applets and JDBC connectivity. (PO5, PO7)

# Java Lab list

- 1. Write a program to use command line arguments.
- 2. Write a program to demonstrate that include a method inside the Rectangular Class.
- 3. Write a program to demonstrate Parameterized Constructors.
- 4. Write a program to demonstrate Method Overloading.
- 5. Write a Program to demonstrate Constructor Overloading.
- 6. Write a program to demonstrate Method Inheritance.
- 7. Write a program to demonstrate Method Overriding.
- 8. Write a program to demonstrate Abstract Classes.
- 9. Write a program to arrange given Strings in Alphabetical Order.
- 10. Write a program for implementing interfaces.
- 11. Write a program on Multiple Inheritance.
- 12. Write a program to demonstrate the Creating threads using thread class.
- 13. Write a program to demonstrate using thread methods.
- 14. Write a program to Implement Thread Priority.
- 15. Write a program to demonstrate Catch Blocks.
- 16. Write a program to Import Packages.
- 17. Write a program to demonstrate Applet Program.
- 18. Write a program to create table and insert values into table in a database.
- 19. Write a program to delete values in a table in database.
- 20. Write a program to update values in a table in database.

@@@@

#### Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified OPERATING SYSTEMS

Semester: IV			PAPER-V
	B. Sc. (MPCS, MCCS,		
<b>Offered To:</b>	MSCS)	<b>Course Code:</b>	CSCT41C
Course Type:	Core (Theory)	Course:	Operating systems
Year of			
Introduction:	2021 - 2022	Year of offering:	2021 - 2022
		Percentage of	
Year of Revision:	-	<b>Revision:</b>	-
Semester:	IV	Credits:	4
Hours Taught:	60 hrs. per semester	Max. Time:	3 Hrs

**Course Prerequisites (if any):** Basic Knowledge in computers, data structures and C programming language.

### **Course Description:**

This course provides basic knowledge about operating system functions, its architectural design along with implementation of various scheduling algorithms. This course also provides knowledge in handling deadlock situation.

#### **Course Objectives:**

The Purpose of this course is to give students an idea of the services provided by the operating system, structure, organization of the file system, process synchronizations, scheduling and memory management.

Course Outcomes: At the end of this course, students should be able to

- 1. Understand Operating System Architectural design and its services. (PO5, PO6, PO7)
- 2. Implementation of Scheduling Algorithms. (PO5, PO6, PO7)
- 3. Analyze memory management techniques, concepts of virtual memory and disk scheduling. (PO5, PO6, PO7)
- 4. Understand the implementation of file systems and directories with the interfacing of IO devices with the operating system. (PO5, PO6, PO7)
- 5. **Identify** the deadlock situation and provide appropriate solutions so that protection and security of the operating system is also maintained. (PO5, PO6, PO7)

Syllabus		
Unit	Learning Units	Lecture Hours
	<b>Operating System</b> : Introduction, Operating Systems Objectives and functions, Computer System Architecture, OS Structure, OS Operations. Evolution of Operating Systems, Types of operating system - Simple, Batch, Multi programmed, Time shared, Parallel, Distributed Systems, Real-Time Systems, Operating System services.	11
II	<b>Process and CPU Scheduling</b> – Process concepts, The Process, Process State, Process Control Block, Process communication, Threads. Process Scheduling - Scheduling Queues, Schedulers, Context Switch, Preemptive Scheduling,Dispatcher, , Scheduling Criteria, Scheduling algorithms,Case studies: Linux, Windows. Process Synchronization - The Critical section Problem, Synchronization Hardware,Semaphores, Classic Problems of Synchronization,Monitors.	13
III	Memory Management and Virtual Memory – Logical & physical Address Space, Swapping, Contiguous Allocation, Paging-Structure of Page Table, Segmentation, Segmentation with Paging, Virtual Memory, Demand Paging, Performance of Demanding Paging, Page Replacement, Page Replacement Algorithms, Allocation of Frames.	13
IV	<b>File System Interface</b> – The Concept of a File , Access methods , Directory Structure, ,File System Mounting , File Sharing, Protection, File System Structure, Mass Storage Structure - Overview of Mass Storage Structure , Disk Structure, Disk Attachment, Disk Scheduling.	12
v	<b>Deadlocks</b> – System Model, Deadlock Characterization, Methods for Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection and Recovery from Deadlock.	11

Pr	rescribedTextBooks		
	Author		
		Title	Publisher
1	Silberschatz, Galvin,	Operating System Concepts, eight Edition	John Willey & Sons INC
	Gagne		

I	ReferenceTextBook			
	Author	Title	Publisher	
1	Abraham Silberchatz, Peter B. Galvin, Greg Gagne	Operating System Principles, 8th Edition	Wiley Student Edition	
2	Naresh Chauhan,	Principles of Operating Systems	OXFORD University Press	

Course Delivery method : Face-to-face / Blended

Course has focus on : Skill Development

Co-curricular Activities: Programming Contests, Assignments & Quiz @@@@

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### OPERATING SYSTEMS MODEL QUESTION PAPER

TITLE OF DADED

#### **SECTION – A**

#### Answer any <u>FIVE</u> questions:

**Answer ALL questions:** 

1. Explain computer system architecture with a neat diagram. (CO1, L2)

- 2. Write about process states with a neat diagram. (CO1, L2)
- 3. Explain about context switching. (CO2, L2)
- 4. Write short notes on swapping. (CO3, L2)

5. Write about logical and physical address spaces. (CO3, L2)

- 6. Write about different file access methods. (CO4, L2)
- 7. What are the necessary conditions for deadlocks? (CO5, L2)
- 8. Explain how dead locks can be recovered. (CO5, L2)

# SECTION – B

#### 5 X 10 = 50 Marks

5 X 5 = 25 Marks

9. (a). Define operating system and explain its functions. (CO1, L2)

OR

(b.) Explain about various types of operating systems. (CO1, L2)

10. (a) Explain SJF and priority scheduling algorithms with an example. (CO2, L2)

OR

- (b) Explain about inter process communication. (CO2, L2)
- 11. (a) Discuss the concept of paging with neat diagram. (CO3, L2)

OR

(b) Consider the following page reference string and calculate the number of page faults by using FIFO and LRU with three frames.

7 0 1 2 0 3 0 4 2 3 0 3 2 1 2 0 1 7 0 1 (CO3, L2)

12. (a). Explain in detail file operations. (CO4, L2)

OR

- (b). Discuss about FCFS disk scheduling and SSTF scheduling with a suitable example. (CO4,L2)
- 13. (a) what is deadlock ?explain deadlock preventions methods. (CO5, L2)

OR

(b) Explain banker's algorithm for deadlock avoidance.(CO5, L2)

@@@@@

Vuyyuru-521165. NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified*  **OPERATING SYSTEMS BLUE PRINT** 

COURSE CODE:CSCT41CTITLE OF PAPER: OPERATING SYSTEMSCLASS / GROUP:B.Sc (MPCS, MCCS, MSCS, )SEMESTER: IVTime:3 Hrs.Max. Marks: 75

#### Section-A

# ANSWER ANY FIVE QUESTIONS

1.	UNIT -1	5M
2.	UNIT -1	5M
3.	UNIT -2	5M
4.	UNIT -3	5M
5.	UNIT -3	5M
6.	UNIT -4	5M
7.	UNIT -5	5M
8.	UNIT -5	5M

#### Section-B

#### **ANSWER THE FOLLOWING QUESTIONS**

5x10M=50M

9.	UNIT -1	10
		OR
	UNIT -1	10
10.	UNIT -2	10
		OR
	UNIT -2	10
11.	UNIT -3	10
		OR
	UNIT -3	10
12.	UNIT -4	10
		OR
	UNIT -4	10
13.	UNIT -5	10
		OR
	UNIT -5	10

@@@@

5x5M=25M

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

# **OPERATING SYSTEMS LAB**

Semester: IV			PAPER-V
Offered To:	B. Sc. (MPCS, MCCS, MSCS)	Course Code:	CSCT41C
Course Type:	Core (Practical)	Course:	Operating systems Lab
Year of Introduction:	2021 - 2022	Year of offering:	2021 - 2022
Year of Revision:	-	Percentage of Revision:	-
Semester:	IV	Credits:	1
Hours Taught:	30 hrs. per semester	Max. Time:	3 Hrs

**Course Prerequisites (if any):** Basic Knowledge in OS concepts, data structures and C programming language.

# **Course Description:**

This course deals with training students in developing and implementing logics for various OS scheduling algorithms. It also enables students to gain practical knowledge in implementing various UNIX commands.

# **Course Objective:**

The Purpose of this course is to have students understand and the principles in the design and implementation of operating system software.

# Course Outcomes: At the end of this course, students should be able to

- CO 1. Implementing DOS & UNIX Commands(PO5, PO6, PO7)
- CO 2. Implementing CPU Scheduling Algorithms(PO5, PO6, PO7)
- CO 3. Implementing CPU Scheduling Algorithms, Deadlocks Avoidance, Prevention & Memory Management Techniques(PO5, PO6, PO7)

CO 4. Implementing Contiguous Memory Allocation Techniques & Page Replacement Algorithms(PO5, PO6, PO7)

CO 5. Implementing File allocation Strategies(PO5, PO6, PO7)

# Lab Exercises

# 1. DOS - Internal Commands

# 2. UNIX Commands

- 1. In your home directory create a directory named DIR
- 2. Copy all files whose filenames satisfy the following conditions to ~/DIR. The files are in /usr/include directory, their names start with m, end with .h and contain a number.
- 3. Create a subdirectory called SUBDIR in your DIR directory.
- 4. The first five lines of each file you have copied from /usr/include copy to file ~/DIR/ SUBDIR/first five.
- 5. The last lines of files in ~/DIR copy to file ~/DIR/SUBDIR/last.
- 6. Concatenate the two files in ~/DIR/SUBDIR into one file ~/DIR/SUBDIR/first and last
- 7. Delete the files in ~/DIR/SUBDIR except first and last.
- 8. Store the number of files and directories in ~/DIR into a file ~/DIR/SUBDIR/count
- 9. Output the long information in the ~/DIR/SUBDIR directory. (Not its content, but information on it).
- 10. Delete the contents of ~/DIR/SUBDIR/first and last file without removing the file itself.
- 11. Add a line containing just a star sign (i.e. \*) to file ~/DIR/SUBDIR/first and last.
- 12. Delete  $\sim$ /DIR together with all the files it contains.
- 13. Output lines number 11-20 from file /etc/passwd.

# 3. List of Programmes

- 1. Write a Program to implement First Come First Serve Scheduling algorithm
- 2. Write a Program to implement Shortest Job First Scheduling algorithm
- 3. Write a Program to implement Round Robin Scheduling algorithm
- 4. Write a Program to implement Priority Scheduling algorithm
- 5. Write a program to implement Worst Fit Contiguous Memory Allocation
- 6. Write a program to implement Best Fit Contiguous Memory Allocation
- 7. Write a program to implement First Fit Contiguous Memory Allocation
- 8. Write a program to implement First In First Out Page replacement Algorithm
- 9. Write a program to implement First In Least Recently Used Page replacement Algorithm
- 10. Write a program to implement First In Optimal Page replacement Algorithm

@@@@@

# Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified DATABASE MANAGEMENT SYSTEMS

SEMESTER-IV

### PAPER-IV

Offered To:	B. Com (CA)	<b>Course Code:</b>	CABT41A
			Database Management
Course Type:	Core (Theory)	Course:	Systems
Year of			
Introduction:	2021 - 2022	Year of offering:	2021 - 2022
		Percentage of	
Year of Revision:	-	Revision:	-
Semester:	IV	Credits:	4
Hours Taught:	60 hrs. per semester	Max. Time:	3 Hrs

**Course Prerequisites (if any):** 

**Course Description:** This course focuses towards Database System Concepts and Architecture, ER models, relational algebra relational calculus, SQL and PL/SQL.

#### **Course Objectives:**

The objective of the course is to introduce the design and development of databases with special emphasis on relational databases. Design & develop database for large volumes & varieties of data with optimized data processing techniques.

Course Outcomes: At the end of this course, students should be able to:

On completing the subject, students will be able to:

CO1	Understand the Characteristics and basics of Database.(PO5, PO7)
CO2	Understand file system and Architecture of DBMS(PO5, PO7)
CO3	Enlighten ER Diagrams, Relationship, Notation & schema. (PO5, PO7)
CO4	Enlighten EER Diagrams & Applying constraints on data. (PO5, PO7)
CO5	Implementing SQL commands retrieve, insert, modify and update(PO5, PO7)

Syllabus		
Unit	Learning Units	Lecture Hours
Ι	<b>Databases and Database Users :</b> Introduction - Data and Information, Characteristics of the Database Approach, Self-Describing Nature of the Database System, Insulation between Programs and Data, Data Abstraction, Support of Multiple Views of the data, Sharing of Data and multiuser Transaction Processing, Evolution of Database System	10
II	Traditional File Processing Systems - Disadvantages of Traditional File Processing Systems, Advantages of the Database Approach, Database system Concepts and Architecture - Data Models, Schemas and Instances, Categories of Data Models, Schemas, Instances and Database State, Three-Schema architecture for database development, Data Independence	10
III	Entity Relationship Model – Introduction, Entity types, Entity sets, Attributes and Keys, Entities and Attributes, Entity Types, Entity Sets, Keys and Value Sets, Relationships, Relationship types, Roles, and Structural Constraints – Relational types, Sets and Instances, Relationship degree, Role names, recursive relationships, constraints on relationship types, Attributes of relationship types. Weak entity types, E R diagrams, Naming conventions, design issues - Summary of Notation for ER Diagrams, Proper Naming of Schema Constructs.	12

IV	Enhanced Entity-Relationship - Subclasses, super classes, and inheritance, Specialization and Generalization, Constraints and characteristics of Specialization and Generalization, Data Abstraction and knowledge representation concepts - Classification and Instantiation, Identification, Aggregation and Association. The Relational Data Model, Relational Constraints - Introduction, Relational Model Concepts, Domains, Attributes, Tuples and Relations, Relational Model Notation, Relational Constraints and Relational Database Schemas, Entity Integrity, Referential , Integrity and Foreign Keys.	13
V	SQL (STRUCTURED QUERY LANGUAGE) Introduction, Data Definition, Constraints and Schema changes in SQL - Schema AND Catalog Concepts in SQL, The CREATE TABLE Command and SQL Data Types and Constraints, The DROP SCHEMA and DROP TABLE Command, The ALTER TABLE Command, Basic Queries in SQL - The SELECT-FROM-WHERE Structure of SQL Queries, Dealing with Ambiguous Attribute Names and Naming (Aliasing), Unspecified WHERE- Clause and Use of Asterisk (*), Tables as sets in SQL, Substring Comparisons, Arithmetic Operators, and Ordering. Aggregate Functions and Grouping 5.5, Insert, Delete, and Update Statements in SQL - The INSERT Command, The DELETE Command, The Update Command.	15

Pres	PrescribedTextBook:		
	Author	Title	Publisher
1	R.Elmasri and S.Navathe	Fundamentals of Database Systems	
2	Jeffrey A.Hoffer,V.Ramesh, HeikkiTopi	Modern Database Management	Pearson
3	Abraham Silberschatz, Henry Korth, and S. Sudarshan	Database System Concepts	McGrawhill, 2010

R	ReferenceTextBooks:			
	Author	Title	Publisher	
1	Raghu Ramakrishnan	Database Management Systems	McGrawhill,2002	
2	J .D.Ullman	Prinicples of Database Systems		
3	Bipin C Desai	An Introduction to Database Systems		
4	.Sumathi, S. Esakkirajan	Fundamentals of Relational Database Management Systems	Springer Publications	

Course Delivery method: Face-to-face / Blended

Course has focus on: Skill Development

Websites of Interest:

Co-curricular Activities: Certification Courses, Seminars, Quiz.

Vuyyuru-521165. NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified*  **DATABASE MANAGEMENT SYSTEMS MODEL PAPER FOR SEM END EXAMINATION** 

Class: B.Com (Computer Applications) Course Code:CABT41A Semester: IV

Max. Marks: 75M Time: 3 Hours

5x5M=25M

# Section - A

# ANSWER ANY <u>FIVE</u> QUESTIONS

- 1. Explain the difference between data and information. (CO1, L2)
- 2. List the Disadvantages of Traditional file system? (CO2, L1)
- 3. What is Data Model, Instance and Database State? (CO2, L1)
- 4. Explain different types of entities and attributes? (CO3, L2)
- 5. Explain Relationship Types, Degrees and Role names. (CO3, L2)
- 6. What is constraint. Explain different type of constraints. (CO4, L1)
- 7. Demonstrate the features of SQL. (CO5, L2)
- 8. Show how to join tables explain with an example in SQL. (CO5, L2)

# Section - B

### ANSWER THE FOLLOWING QUESTIONS 5x10M=50M

1. A) Outline the characteristics of database management

system. (CO1, L2) (OR)

B) Illustrate the evaluation of database management system. (CO1, L2)

2. A) List advantages of database management system. (CO2, L1)

(OR)

- B) Explain the concept of Three schema architecture and data independence. (CO2, L1)
- 3. A) Show ER diagram for hospital management system and identify weak,

strong and derived attributes in the above diagram. (CO3, L1)

(OR)

B) Define ER diagram, Naming conventions and design issues. (CO3, L1)

4. A) What is Specialization & Generalization in EER. Define Data abstraction and knowledge representation concept. (CO4, L1)

(OR)

B) Explain aggregation functions and groupings in relational algebra. (CO4, L1)

5. A) Explain aggregation functions and groupings in

SQL. (CO5, L2) (OR)

B) Explain different types of constraints with examples. (CO5, L2)

#### Vuyyuru-521165. NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* **DATABASE MANAGEMENT SYSTEMS LAB**

Semester: IV

#### PAPER-IV

Offered To	B Com (CA)	Course Code:	CABP41A
			Database Management
Course Type:	Core (LAB)	Course:	Systems Lab
Year of			-
Introduction:	2021 - 2022	Year of offering:	2021 - 2022
		Percentage of	
Year of Revision:	-	Revision:	-
Semester:	IV	Credits:	1
Hours Taught:	30 hrs. per semester	Max. Time:	3 Hrs

**Course Prerequisites (if any):** A good background in DBMS fundamentals is required. Students should be comfortable with the relational model, SQL, and the basic functions of database systems. **Course Objective**:

The major objective of this lab is to provide a strong formal foundation in database concepts, technology and practice to the participants to groom them into well-informed database application developers.

COURSE OUTCOME NO	Upon successful completion of this course, students should have the knowledge and skills to	
CO1	Construct queries using SQL in database creation. (PO5, PO7)	
CO2	Construct queries using SQL in database based on criterion. (PO5, PO7)	
CO3	Implement Enforce integrity Constraints in SQL. (PO5, PO7)	
CO4	Implementing Aggregate functions in SQL(PO5, PO7)	
CO5	Implementing query in database using sql DDL/DML	
	Commands(PO5, PO7)	

# Course Outcomes:

#### Lab List

- 1. Create a Department table with the following fields: DEPTNO, DNAME and LOCATION.
- 2. Describe the structure of "DEPT" table.
- 3. Insert values into "DEPT" table.
- 4. Select all values from ,,DEPT" table.
- 5. Create EMPLOYEE table with the following fields: EMPNO, ENAME, JOB, MGR, HIRE DATE, SALARY, COMMISTION and DEPTNO.
- 6. Describe the structure of "EMP" table.
- 7. Insert the values into "EMP" table.
- 8. Select all the values from "EMP" table.
- 9. Create table GRADE with the following fields: GRADE, LOSAL and HISAL.
- 10. Insert values into "GRADE" table.
- 11. Select all the values from "GRADE" table.
- 12. List all the employee information for department 10.

- 13. Find out the names of all employees.
- 14. Retrieve the list of names and salary of all employees.
- 15. Find the names of employees who have a salary equal to RS3000.
- 16. List the employee whose names start with "s".
- 17. List the employee names ending with "s".
- 18. List the names of employees whose names have exactly 5 characters.
- 19. List the employee names having D as the second character.
- 20. List the employee names having two A"S in their name.
- 21. Display all employee names which have ",TH" or ",LL" in them.
- 22. List out EMPNO, ENAME and SALARY of the employees whose salary is between 1500 and 2000.
- 23. List the names of employees who belong to department 10, 20.
- 24. List employee number of the employees who don't have the name of "FORD", "JAMES" (OR)"JONES".
- 25. Display all the different job types.
- 26. Retrieve all rows from EMP table for department 30 and order by name.
- 27. List the employee names and HIREDATES in descending order of HIREDATE.
- 28. Retrieve department names and no"s in ascending order of DNAME.
- 29. List all employees" information that has a manager.
- 30. List name of the employees, job and commission of those employees who do the job of clerk or salesman and get no commission.
- 31. List the names and jobs of all clerks in department 20.
- 32. Display current data & time.
- 33. Display the concatenated string.
- 34. Display string "SMITH" of first character as capital letter.
- 35. Display the length of a string "SALESMAN".
- 36. Display the string "SALESMAN" in lower case.
- 37. Display all department names in upper case.
- 38. Display the value using ABS.
- 39. Displays the value using CEIL.
- 40. Display the value using FLOOR.
- 41. Display the value using POWER.
- 42. Display the value using SQRT.
- 43. Display all employees who were hired during 1982.
- 44. List the no of employees working with company.
- 45. List the no of jobs available in the emp table.
- 46. List the total salaries payable to employees.
- 47. List the maximum salary of employee working as a salesman.
- 48. List the minimum salary of employee from employee table.
- 49. List the avg salary from Employee table.
- 50. List the avg salary and no of employees working in the deptno 20.
- 51. Display the total salary for each department.
- 52. List the average salary of each job in the EMP table.
- 53. List the maximum salary for each department.
- 54. Find the total salary for each job of each department.
- 55. Display the no of employee in each department.
- 56. To find the maximum salary of each department, but show only the department that has a maximum salary of more than RS 2900.
- 57. List the total salary, maximum, minimum and average salary of employees job wise for department no and display only those rows having average salary greater than 1000.

- 58. Display the job tittle and total monthly salary for each job title with a total pay role exceeding RS 5000 and excludes sales people and sorts the list by the total monthly salary.
- 59. Display the different job in department 20 and 30.
- 60. List the employee no and names working in department no 20 and 30.
- 61. Display the different jobs in department 20 and 30 with union all.
- 62. Display all the employee names dept no"s and dept names.
- 63. Display all employees in "DALLAS".
- 64. Display the employee names where salary is greater than employee no 7566.
- 65. Display the employee whose job tittle is same as that of employee 7369.
- 66. Display the employee name where salary is equal to the minimum salary.
- 67. Find the employees who earn the same salary as the minimum salary for departments.
- 68. To display all the departments that has a minimum salary greater than that of department 20.

@@@@@

Vuyyuru-521165. NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* 

# **Title of the Paper: OBJECT ORIENTED PROGRAMMING USING JAVA** Semester: IV

# PAPER-V

Course Code	CCSCT42	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	25
No. of Lecture Hours / Week	5	Semester End Exam Marks	75
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** This Course will enable students to understand the basic concepts of object oriented programming and difference between procedure-oriented programming; get a clear understanding of basics of java programming

#### **Course Outcomes:**

CO1	Able to Understand the concept and underlying principles of Object-Oriented Programming.
$CO_2$	Able to Understand the Basic concepts of Data types & Operators
CO <sub>3</sub>	Able to Implement Decision & Looping Statements
CO <sub>4</sub>	Able to Implement Object Oriented Programming Concepts like class, constructor, overloading in java.
CO <sub>5</sub>	Able to Understand the concept of Inheritance and Exceptions Object-Oriented Programming.

# Syllabus

# **Course Details**

Unit	Learning Units	Lecture
		Hours
I	<b>Fundamentals of Object – Oriented Programming:</b> Introduction, Object Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Applications of OOP, Java features:	10
II	<b>Overview of Java Language</b> : Introduction, Simple Java program structure, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments. <b>Constants, Variables &amp; Data Types:</b> Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Type casting, Getting Value of Variables, <b>Operators.</b>	14
III	<b>Decision Making &amp; Branching:</b> Introduction, Decision making with if statement, Simple if statement, if-Else statement, Nesting of if-else statements, the else if ladder, the switch statement, the conditional operator. <b>Looping</b> : Introduction, while statement, do-while statement, for statement, Jumps in loops.	12
IV	Classes, Objects & Methods: Introduction, defining a class, adding variables, adding methods, creating objects, Accessing class members, Constructors, Method overloading, Method Overriding, Static members, Nesting of methods;	12
V	<b>Inheritance</b> : Extending a Class, Overriding Methods, Final Variables and Methods, Final Classes, Abstract Methods and Classes; <b>Arrays, Strings And Vectors</b> : Arrays, One- dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Vectors, Wrapper classes; <b>Interfaces</b> : <b>Multiple Inheritance</b> : Introduction, Defining interfaces, Extending interfaces, Implementing interfaces, Assessing interface variables;	12

# **Prescribed Text Book:**

1. E. Balaguruswamy, Programming with JAVA, A primer, 3e, TATA McGraw-Hill Company. **Reference Books** 

- 1. Programming In Java By Sachin Malhotra And Saurabh Choudhary From Oxford University Press
- 2. Object Oriented Programming Through Java by P. Radha Krishna, Universities Press
- 3. John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series,
- 4. Deitel&Deitel. Java TM: How to Program, PHI (2007)
- 5. Java Programming: From Problem Analysis to Program Design- D.S Mallik

**Course Focus:** OOP focus on the objects that developers want to manipulate rather than the logic required to manipulate them.

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year2020-21) **COMPUTER SCIENCE** CCSCT42 2022-23 B. Com (CA) SEMESTER – IV PAPER – IV Pass Marks :30 Max. Marks 75 **OBJECT ORIENTED PROGRAMMING USING JAVA** Syllabus: Credits: 3

**Total Hrs: 60** 

NO. Of. Hours: 4

# Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	1	2
Unit-2	2	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section -A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### OBJECT ORIENTED PROGRAMMING USING JAVA MODEL PAPER

CLASS: B.C Course Code	Com (CA) CCSCT42		Max. Marks: 75M Min. Pass: 30M	
Semester: IV			Time: 3 Hours	
		Section-A		
ANSWER A	ANY FIVE QUESTIONS		5x5M=25M	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		Section-B		
ANSWER T	HE FOLLOWING QUESTIONS	5	5x10M=50M	
9.	(A)	(OR)		
	<b>(B)</b>			
10.	( <b>A</b> )			
		( <b>OR</b> )		
11	(B)			
11.	(A)	$(\mathbf{OP})$		
	(B)	$(\mathbf{OR})$		
12.	(A)			
	()	( <b>OR</b> )		
	<b>(B)</b>			
13.	(A)			
		( <b>OR</b> )		
	(B)			
#### Vuyyuru-521165. NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* OBJECT ORIENTED PROGRAMMING USING JAVA BLUE PRINT

CLASS: B.Com (CA) Course Code: CCSCT42 Semester: IV Max. Marks: 75M Min. Pass: 30M Time: 3 Hours

5x5M=25M

### Section-A

#### ANSWER <u>ANY FIVE</u> QUESTIONS

9.	UNIT -1	5M
10.	UNIT -2	5M
11.	UNIT -2	5M
12.	UNIT -3	5M
13.	UNIT -3	5M
14.	UNIT -4	5M
15.	UNIT -4	5M
16.	UNIT -5	5M

#### Section-B

### ANSWER THE FOLLOWING QUESTIONS

9. UNIT -1 ------10M OR UNIT -1 ------10M 10. UNIT -2 -----10M OR UNIT -2 -----10M 11. UNIT -3 -----10M OR UNIT -3 -----10M 12. UNIT -4 -----10M OR UNIT -4 -----10M UNIT -5 -----13. 10M OR UNIT -5 -----10M 5x10M=50M

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year2020-21)

COMPUTER SCIENCE	CCSCP42	2022-23	B. Com (CA)

#### SEMESTER - IV

#### PAPER - V

### Lab List: OBJECT ORIENTED PROGRAMMING USING JAVA Pass Marks

No. of Hours per week: 2 External: 40 Internal: 10 Credits: 1

- 1. Write a program to perform various String Operations
- 2. Write a program to print the given number is Armstrong or not?
- 3. Prompt for the cost and selling price of an article and display the profit (or) loss
- 4. Write a program to print the numbers given by command line arguments
- 5. Write a program on class and object in java
- 6. Illustrate the method overriding in JAVA
- 7. Write a program to find the Simple Interest using Multilevel Inheritance
- 8. Write a program to display matrix multiplication.
- 9. Write a program on interface in java
- 10. Write a program on inheritance

Vuyyuru-521165. NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* 

## Title of the Paper: OBJECT ORIENTED PROGRAMMING USING JAVA Semester: IV

### PAPER-V

Course Code	ECCSCT41	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	25
No. of Lecture Hours / Week	5	Semester End Exam Marks	75
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2020-21	Year of Offering: 2022 - 23	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** This Course will enable students to understand the basic concepts of object oriented programming and difference between procedure-oriented programming; get a clear understanding of basics of java programming

#### **Course Outcomes:**

CO1	Able to Understand the concept and underlying principles of Object-Oriented Programming.
$CO_2$	Able to Understand the Basic concepts of Data types & Operators
CO <sub>3</sub>	Able to Implement Decision & Looping Statements
$\mathrm{CO}_4$	Able to Implement Object Oriented Programming Concepts like class, constructor, overloading in java.
CO <sub>5</sub>	Able to Understand the concept of Inheritance and Exceptions Object-Oriented Programming.

### Syllabus

### **Course Details**

Unit	Learning Units	Lecture
		Hours
I	<b>Fundamentals of Object – Oriented Programming:</b> Introduction, Object Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Applications of OOP, Java features:	10
II	<b>Overview of Java Language</b> : Introduction, Simple Java program structure, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments. <b>Constants, Variables &amp; Data Types:</b> Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Type casting, Getting Value of Variables, <b>Operators.</b>	14
III	<b>Decision Making &amp; Branching:</b> Introduction, Decision making with if statement, Simple if statement, if-Else statement, Nesting of if-else statements, the else if ladder, the switch statement, the conditional operator. <b>Looping</b> : Introduction, while statement, do-while statement, for statement, Jumps in loops.	12
IV	Classes, Objects & Methods: Introduction, defining a class, adding variables, adding methods, creating objects, Accessing class members, Constructors, Method overloading, Method Overriding, Static members, Nesting of methods;	12
V	<b>Inheritance</b> : Extending a Class, Overriding Methods, Final Variables and Methods, Final Classes, Abstract Methods and Classes; <b>Arrays, Strings And Vectors</b> : Arrays, One- dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Vectors, Wrapper classes; <b>Interfaces</b> : <b>Multiple Inheritance</b> : Introduction, Defining interfaces, Extending interfaces, Implementing interfaces, Assessing interface variables;	12

### **Prescribed Text Book:**

1. E. Balaguruswamy, Programming with JAVA, A primer, 3e, TATA McGraw-Hill Company. **Reference Books** 

- 6. Programming In Java By Sachin Malhotra And Saurabh Choudhary From Oxford University Press
- 7. Object Oriented Programming Through Java by P. Radha Krishna, Universities Press
- 8. John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series,
- 9. Deitel&Deitel. Java TM: How to Program, PHI (2007)

10. Java Programming: From Problem Analysis to Program Design- D.S Mallik

**Course Focus:** OOP focus on the objects that developers want to manipulate rather than the logic required to manipulate them.

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

### OBJECT ORIENTED PROGRAMMING USING JAVA MODEL PAPER

CLASS: B.Com (e-Com-Computers)	Max. Marks: 75M
Course Code: ECCSCT41	Min. Pass: 30M
Semester: IV	Time: 3 Hours
Section-A	
ANSWER ANY FIVE QUESTIONS	5x5M=25M
<b>1.</b> What are the benefits and applications of oops?	
2. Explain about Structure of java?	
<b>3</b> . Explain types of variables in java?	
4. Explain about Typecasting	
5. Explain about Switch Statement?	
6. Explain about Jump Statements in java?	
7. Explain types of constructors?	
8. Explain about Final keyword?	
<u>Section-B</u> ANSWER THE FOLLOWING OUESTIONS	5x10M=50M
9. (A) Explain about Basic Concepts of oops?	
(B) Explain about Java features	
10. (A) Explain about primitive data types in java? (OR)	
(B) Explain about operators	
11. (A) Explain about Decision making statements in java? (OR)	
(B) Explain about looping statements in java	
12. (A) Explain about method overloading and overriding? (OR)	
(B) What is inheritance? Explain types of inheritances?	
15. (A) what is an Array $i$ Explain its types $i$	
(B) What is String? Explain string handling functions in	java?

Vuyyuru-521165. NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified*  **OBJECT ORIENTED PROGRAMMING USING JAVA BLUE PRINT** 

CLASS: B.Com (e-Com-Computers) Course Code: ECCSCT41 Semester: IV Max. Marks: 75M Min. Pass: 30M Time: 3 Hours

5x5M=25M

### Section-A

### ANSWER ANY FIVE QUESTIONS

1.	UNIT -1	5M
2.	UNIT -2	5M
3.	UNIT -2	5M
4.	UNIT -3	5M
5.	UNIT -3	5M
6.	UNIT -4	5M
7.	UNIT -4	5M
8.	UNIT -5	5M

### Section-B

#### **ANSWER THE FOLLOWING QUESTIONS**

5x10M=50M

10
10
10
10
10
10
10
10
10
10
-

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year2020-21)

	COMPUTER SCIENCE	ECCSCT41	2022-23	B. Com (e-Com- Computers)
SEMESTER – IV PAPER – IV		Max. Marks	75 Pass I	Marks 30
Syllabus: O		CT ORIENTED P	ROGRAMMI	NG USING JAVA
<b>Total Hrs</b>	:: 60 N	O. Of. Hours: 4		Credits: 3

Unit wise weight age of Marks

	Section-A	Section-B
	(Short answer questions)	(essay questions)
Unit-1	1	2
Unit-2	2	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year2020-21)

|--|

### SEMESTER – IV

### PAPER - V

### Lab List: OBJECT ORIENTED PROGRAMMING USING JAVA Pass Marks 20

No. of Hours per week: 2 External: 40 Internal: 10 Credits: 1

1. Write a program to perform various String Operations

2. Write a program to print the given number is Armstrong or not?

- 3. Prompt for the cost and selling price of an article and display the profit (or) loss
- 4. Write a program to print the numbers given by command line arguments
- 5. Write a program on class and object in java
- 6. Illustrate the method overriding in JAVA
- 7. Write a program to find the Simple Interest using Multilevel Inheritance
- 8. Write a program to display matrix multiplication.
- 9. Write a program on interface in java
- 10. Write a program on inheritance

	AG & SG SI An Autonor	DDHARTHA C nous college wit (With Ef	OLLEGE OF Al hin the jurisdiction fect from Academ	RTS AND SC on of Krishna nic Year 2021	IENCES - VUYYURU. University A.P, India. -22)	
	COMPUTE	R SCIENCE	ECCSCT42	2022-'23	B.Com.(E-Commerce)	]
SEMES	STER – IV	PAPER – V	VI	Max.	Marks: 75	]
<u>Syllabus</u>		DATA I	BASE MANAGE	MENT SYST	EMS	
NO Of H	ours: 5	No Of C	redits: 3		Pass Mark	s: 30
Course O	bjective: De	sign & develop d	latabase for large	volumes & va	rieties of data with optimiz	zed data
processing	g techniques.					
Course P	rerequisites (i	f any):				
<b>Course D</b> relational	escription: Th algebra relation	is course focuses nal calculus, SQI	towards Database and PL/SQL.	e System Cond	cepts and Architecture, ER	t models
Course O	bjectives:					
The emp optin	objective of th hasis on relation nized data proce	e course is to intal databases. Desi essing techniques.	roduce the design gn & develop datab	and developm ase for large vo	ent of databases with spec olumes & varieties of data w	ial ith
Course O	u <b>tcomes:</b> At th	e end of this cou	rse, students shoul	d be able to:		

On completing the subject, students will be able to:

	J,
CO1	Understand the Characteristics and basics of Database.(PO5, PO7)
CO2	Understand file system and Architecture of DBMS(PO5, PO7)
CO3	Enlighten ER Diagrams, Relationship, Notation & schema. (PO5, PO7)
CO4	Enlighten EER Diagrams & Applying constraints on data. (PO5, PO7)
CO5	Implementing SQL commands retrieve, insert, modify and update(PO5, PO7)

### **Unit – 1: Database Systems Introduction**

Database Systems: Introducing the database and DBMS, Why the database is important,

Historical Roots: Files and File Systems, Problems with File System, Data Management, Database Systems. Data Models: The importance of Data models, Data Model Basic Building Blocks, The evaluation of Data Models.

### Unit - II: Relational Database & Data Modelling

The Relational Database Model: A logical view of Data, Keys, Integrity Rules, Relational Set Operators, Indexes, Codd's relational database rules. Entity Relationship Model: The ER Model

Advanced Data Modelling: The Extended Entity Relationship Model, Entity clustering.

### **Unit-III: Normalization and Database Design**

Normalization of database tables: Database Tables and Normalization, The need for Normalization, The Normalization Process, High level Normal Forms, Normalization and database design, de normalization.

### **Unit-IV: Structured Query Language**

Introduction to SQL: Data Definition Commands, Data Manipulation Commands, Select queries, Advanced Data Definition Commands, Advanced Select queries, Virtual Tables, SQL Join Operators, **10 Hrs** 

### **Unit-V: Procedural SQL**

Introduction to PL/SQL : Triggers, Stored Procedures, Pl/ SQL Stored Functions **Prescribed Text Book:** 

1. Peter Rob, Carlos Coronel, Database Systems Design, Implementation and Management, Seventh Edition, Thomson (2007).

### **R**eference Books:

- 1. Elimasri / Navathe, Fundamentals of Database Systems, Fifth Edition, Pearson Addison Wesley
- 2. Raman A Mata Toledo/Panline K Cushman, Database Management Systems, Schaum'sOutlibe series, Tata McGraw Hill (2007).

### 12Hrs

### 14 Hrs

12 Hrs

12 Hrs

Vuyyuru-521165. NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* DATABASE MANAGEMENT SYSTEMS MODEL PAPER FOR SEM END EXAMINATION

Class: B.Com (E-COMMERCE) Course Code: ECCSCT42 Semester: IV

Max. Marks: 75M Time: 3 Hours

5x5M=25M

### Section - A

#### **ANSWER ANY FIVE QUESTIONS**

- 1. Explain the difference between data and information. (CO1, L2)
- 2. List the Disadvantages of Traditional file system? (CO2, L1)
- 3. Explain Integrity Rules? (CO2, L1)
- 4. Explain different types of entities and attributes? (CO3, L2)
- 5. Explain 3NF with example (CO3, L2)
- 6. What is constraint. Explain different type of constraints. (CO4, L1)
- 7. Demonstrate the features of SQL. (CO5, L2)
- 8. Explain PL/SQL Structure. (CO5, L2)

#### Section - B

5x10M=50M

### ANSWER THE FOLLOWING QUESTIONS

9. A) Explain Drawbacks of File System. (CO1, L2)

(OR)

B)Explain Different types of Data models. (CO1, L2)

10. A) Explain Codd's Database rules. (CO2, L1)

(OR)

B) Explain EER Model with example (CO2, L1)

11. A) What is Normalization? Explain Different types Normal forms (CO3, L1)

(OR)

B) What is denormalization? Explain denormalization on different tables.(CO3, L1)

12. A) Explain DDL& DML Commands (CO4, L1)

### (OR)

B) Explain SQL JOINS (CO4, L1)

13. A) Explain Triggers with example. (CO5, L2)

### (OR)

B)Explain Stored procedure with examples. (CO5, L2)

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year2020-21)

(				
COMPUTER SCIENCE	ECCSCP42	2022-23	B. Com (e-Com- Computers)	

**SEMESTER – IV** 

### PAPER – VI

Pass Marks 20

Credits: 1

## Lab List:DATA BASE MANAGEMENT SYSTEMNo. of Hours per week:2External:40Internal:10

- 1. Creation of college database and establish relationships between tables
- 2. Show the structure of the Student table.
- 3. Show the structure of the Emp table.
- 4. Show the structure of the DEPT table.

### Queries

- 1. Explain the syntax of SELECT statement.
- 2. Create a query to display the name, job, hiredate and employee number from emp table.
- 3. Create a query to display unique jobs from the emp table.
- 4. Create a query to display the empno as EMP#, ename as EMPLOYEE and Hire\_date from emp.
- 5. Create a query to display all the data from the EMP table. Separate each column by a comma and
- 6. name the column THE\_OUTPUT.
- 7. Create a query to display the name and salary of employees earning more than 2850.
- 8. Create a query to display the name and salary for all employees whose salary is not in the range of  $\frac{1500}{100}$  and  $\frac{2850}{100}$
- 9. 1500 and 2850.
- 10. Display the employee name, job and start date of employees hired between February 20,1981
- 11. and May 1, 1981. Order the query in ascending order of start date
- 12. Display the employee name and department number of all the employees in departments 10 and 30
- 13. in alphabetical order by name.
- 14. List the name and salary of employees who earn more than 1500 & amp; are in department 10 or 30.
- 15. Display the name, salary and commissions and sort data in descending order of salary and
- 16. commission.
- 17. Display the name and job title of all employees who do not have a manager.
- 18. Display the name, job and salary for all employees whose job is Clerk or Analyst and their salary
- 19. is not equal to 1000, 3000 or 5000.
- 20. Display the names of all employees where the third letter of their name is an 'A'.
- 21. Display the names of all employees who have two 'L's in their name and are in department 30 or their manager is 7782
- 22. their manager is 7782.
- 23. Display the name , salary and commission for all employees whose commission amount is grater
- 24. than their salary increased by 10%.
- 21. Explain all the character functions.
- 22. Explain all the number functions.
- 23. Explain all the Date functions.

### PL/SQL.

- 1. Write A Pl/Sql Program To Swap Two Numbers Without Using Third Variable.
- 2. Write A Pl/Sql Program To Generate Multiplication Tables For Numbers 2,4 And 6
- 3. Write A Pl/Sql Program To Display Sum Of Even Numbers And Sum Of Odd Numbers In The Given Range.
- 4. Write A Pl/Sql Program To Check The Given Number Is Pollinndrome Or Not.

# 5. Write A Pl/Sql Program To Display Top 10 Rows In Emp Table Based On Their Job And Salary. **Reference Books:**

- 1. Oracle Pl/Sql By Example. Benjamin Rosenzweig, Elena Silvestrova, Pearsoneducation 3rd Edition
- 2. Sql& Pl/Sql For Oracle 10g, Black Book, Dr.P.S. Deshpande

E	AG & SG SI An Autonon	DDHARTHA nous college wi (With E	COLLEGE OF AI athin the jurisdiction affect from Academ	RTS AND SC on of Krishna uic Year 2021	CIENCES - VUYYURU. a University A.P, India. I-22)
•	COMPUTEI	R SCIENCE	ECCSCT43	2022-'23	B.Com.(E-Commerce)
SEMEST	ER – IV	PAPER –	VII	Max.	Marks: 75
		DATA (	COMMUNICAT	TION & NE	ETWORKS
NO Of Hou	rs: 5	No Of	Credits: 3		Pass Marks :30
LEARNING	OBJECTIV	ES:			

1. Understand the structure of Data Communications System and its components. Be familiarize with different network terminologies.

2. Familiarize with contemporary issues in network technologies.

3. Know the layered model approach explained in OSI and TCP/IP network models

4. Identify different types of network devices and their functions within a network.

5. Learn basic routing mechanisms, IP addressing scheme and internetworking concepts.

6. Familiarize with IP and TCP Internet protocols.

**COURSE OUTCOMES:** Upon Completion of the course, the students will be able to:

- Able to understand the fundamentals of computer networks, TCP/IP protocol.
- Able to understand the data communication techniques and multiplexing techniques.
- They will be able to understand the network switching techniques and various access mechanisms.
- Able to understand CSMA/CD protocols, routing algorithms.

### UNIT I.: Introduction to Computer Networks and Networking Elements:

Network Definition, Network Topologies, Network Classifications, Network Protocol, Layered Network Architecture, Overview of OSI Reference Model, Overview of TCP/IP Protocol Suite, Hub, Switch (Managed and Unmanaged), Routers

### **UNIT II.: Data Communication Fundamentals and Techniques:**

Analog and Digital Signal, Data- Rate Limits, Digital to Digital Line Encoding Schemes, Pulse Code Modulation, Parallel and Serial Transmission, Digital to Analog Modulation - Multiplexing Techniques-FDM, TDM, Transmission Media.

### **UNIT III. Networks Switching Techniques and Access Mechanisms:**

Circuit Switching, Packet Switching- Connectionless Datagram Switching, Connection- Oriented Virtual Circuit Switching; Dial-Up Modems, Digital Subscriber Line, Cable TV for Data Transfer.

### UNIT IV. Data Link Layer Functions and Protocol:

Error Detection and Error Correction Techniques, Data-Link Control- Framing and Flow Control, Error Recovery Protocols-Stop and Wait ARQ, Go-Back-N ARQ, Point to Point Protocol on Internet.

### UNIT V. Multiple Access Protocol and Network Layer:

CSMA/CD Protocols, Ethernet LANS; Connecting LAN and Back-Bone Networks- Repeaters, Hubs, Switches, Bridges, Router and Gateways, Networks Layer Functions and Protocols Routing, Routing Algorithms, Network Layer Protocol of Internet - IP Protocol, Internet Control Protocols.

### **TEXTBOOKS:**

• B. A. Forouzan: Data Communications and Networking, Fourth edition, THM Publishing Company Ltd 2007. • A. S. Tanenbaum: Computer Networks, Fourth edition, PHI Pvt. Ltd 2002

12 Hrs

12 Hrs

12 Hrs

12Hrs

12 Hrs

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

### DATA COMMUNICATION & NETWORKS MODEL PAPER

CLASS: B.Com (e-Com-Computers)Max. Marks: 75MCourse Code: ECCSCT43Min. Pass: 30MSemester: IVTime: 3 HoursSection-A

ANSWER <u>ANY FIVE</u>	QUESTIONS	5x5M=25M
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

		<u>Section-B</u>	
ANSWER T	HE FOLLOWING QUESTION	S	5x10M=50M
9.	(A)	( <b>OR</b> )	
	<b>(B)</b>		
10.	(A)		
		( <b>OR</b> )	
	<b>(B)</b>		
11.	(A)		
		( <b>OR</b> )	
	<b>(B)</b>		
12.	(A)		
		( <b>OR</b> )	
	<b>(B)</b>		
13.	( <b>A</b> )		
		( <b>OR</b> )	
	<b>(B)</b>		
1			

Vuyyuru-521165. NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* DATA COMMUNICATION & NETWORKS

**BLUE PRINT** 

CLASS: B.Com (e-Com-Computers) Course Code: ECCSCT43 Semester: IV Max. Marks: 75M Min. Pass: 30M Time: 3 Hours

5x5M=25M

### Section-A

### ANSWER ANY FIVE QUESTIONS

1.	UNIT -1	5M
2.	UNIT -2	5M
3.	UNIT -2	5M
4.	UNIT -3	5M
5.	UNIT -3	5M
6.	UNIT -4	5M
7.	UNIT -4	5M
8.	UNIT -5	5M

#### Section-B

### **ANSWER THE FOLLOWING QUESTIONS**

5x10M=50M

	101
UK	
UNIT -1	101
10. UNIT -2	101
OR	
UNIT -2	101
11. UNIT -3	101
OR	
UNIT -3	101
12. UNIT -4	101
OR	
UNIT -4	101
13. UNIT -5	101
OR	
UNIT -5	101

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

### **Title of the Paper: Data Structures**

### Semester: II

### PAPER-II

Course Code	CSCT21B	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

### **Course Objectives**

To introduce the fundamental concept of data structures and to emphasize the importance of various data structures in developing and implementing efficient algorithms.

### **Course Outcomes:**

COURSE OUTCOME NO	Upon successful completion of the course, student will be able to:	PROGRAM OUTCOME NO
C01	Learn the concepts of ADT and understand analysis of algorithms	PO1, PSO1, PSO2, PSO4
CO2	Understand available Data Structures for data storage and processing.	PO1, PSO1, PSO2, PSO4
CO3	Learn stacks, queues and their applications	PO1, PSO1, PSO2, PSO4
<b>CO4</b>	Understand trees, graphs and implement their operations	PO1, PO7, PSO1, PSO2, PSO4
C05	Develop ability to implement different Sorting and Search methods	PO1, PO7, PSO1, PSO2, PSO4

### **11Periods**

**Introduction to Data Structures:** Introduction to the Theory of Data Structures, Data Representation, Abstract Data Types, Data Types, Primitive Data Types, Data Structure and Structured Type, Atomic Type, Difference between Abstract Data Types, Data Types, and Data Structures, Refinement Stages.

**Principles of Programming and Analysis of Algorithms:** Software Engineering, Program Design, Algorithms, Different Approaches to Designing an Algorithm, Complexity, Big 'O' Notation, Algorithm Analysis, Recursion.

### UNIT – II:

Linked Lists: Introduction to Lists and Linked Lists, Basic Linked List Operations, Doubly Linked List, Circular Linked List, Atomic Linked List, Linked List in Arrays, Linked List versus Arrays

### UNIT – III:

### **14Periods**

**11Periods** 

**Stacks:** Introduction to Stacks, Stack as an Abstract Data Type, Representation of Stacks through Arrays, Representation of Stacks through Linked Lists, Applications of Stacks, Stacks and Recursion

**Queues:** Introduction, Queue as an Abstract data Type, Representation of Queues, Circular Queues, Double Ended Queues- De-ques, Priority Queues, Application of Queues

### UNIT – IV:

**Binary Trees:** Introduction to Non- Linear Data Structures, Introduction Binary Trees, Types of Trees, Basic Definition of Binary Trees, Properties of Binary Trees, Representation of Binary Trees, Operations on a Binary Search Tree, Binary Tree Traversal, Counting Number of nodes in Binary Trees, Applications of Binary Tree

### UNIT – V:

**Searching and sorting:** Sorting – An Introduction, Bubble Sort, Insertion Sort, Merge Sort, searching – An Introduction, Linear or Sequential Search, Binary Search, Indexed Sequential Search

**Graphs:** Introduction to Graphs, Terms Associated with Graphs, Sequential Representation of Graphs, Linked Representation of Graphs, Traversal of Graphs, Spanning Trees, Shortest Path, Application of Graphs.

### **BOOKS:**

- "Data Structures using C", ISRD group Second Edition, TMH
- Data Structures through C", YashavantKanetkar, BPBPublications
- "Data Structures Using C" Balagurusamy E.TMH

### **RECOMMENDED CO-CURRICULAR ACTIVITIES:**

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

### A. Measurable

- 1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual andchallenging)
- 2. Student seminars (on topics of the syllabus and related aspects (individualactivity))
- 3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or

### UNIT – I:

### **10Periods**

### 14Periods

groups asteams))

4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

### B. General

- 1. GroupDiscussion
- 2. Others

### **RECOMMENDED CONTINUOUS ASSESSMENT METHODS:**

Some of the following suggested assessment methodologies could be adopted;

- 1. The oral and written examinations (Scheduled and surprise tests),
- 2. Closed-book and open-book tests,
- 3. Programming exercises,
- 4. Practical assignments and laboratory reports,
- 5. Observation of practical skills,
- 6. Individual and group project reports.
- 7. Efficient delivery using seminar presentations,
- 8. Viva voce interviews.
- 9. Computerized adaptive testing, literature surveys and evaluations,
- 10. Peers and self-assessment, outputs form individual and collaborativework.

Vuyyuru- 521165. NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* MODEL Ouestion Paper: 2022-2023

TITLE: DATA STRUCTURES SECTIONS: B.Sc. (MPCS / MCCS / MSCS) SEMESTER: II	COURSE CODE	CSCT21B
TIME: 3 Hrs. SECTION A	MAX: 70M (20MARKS)	Pass Marks 30
1.(a) Define ADT? Explain with examples. 4M OR	(CO1,L1)	
(b) What are different approaches in designing an algorithm? 4M	CO1,L1	
2.(a) Write code for deletion in a doubly linked list. 4M OR	CO2,L1	
(b) Distinguish between linked lists and arrays. 4M	CO2,L1	
3.(a) Demonstrate applications of stack. 4M OR	CO3,L2	
(b) Develop code for push and pop operations in stacks using linked 1	lists. 4M CO3,L2	
4. (a) Explain applications of trees. 4M CO4,L2 OR		
(b) Demonstrate types of trees. 4M CO4,L2		
5. (a) Build code for bubble sort. 4M CO5,L3		
(b)Identify applications of graphs. 4M CO5,L3		
SECTION B ( 50MAR) Answer all Questions (Restrict to a maximum of 2 su	KS) s. ıbdivisions)	
6.(a)Define Data structure, structured type and data type.10M OR	C01,L1	
<ul><li>(b) What is Algorithm analysis and Big O notation ? 10M</li><li>7.(a)Show code for insertion and deletion of nodes in a single linked OR</li></ul>	CO1,L1 list. 10M CO2,L1	
<ul><li>(b)Write code for insertion and display of values in circular linked</li><li>8. (a)Demonstrate stack. Classify functions for various stack operation CO3,L2</li></ul>	list . 10M CO2,L1 ons using arrays.10M	
OR		
<ul><li>(b)Interpret code to implement circular queues using arrays. 10M</li><li>9.(a) Explain deleting a node in a binary search tree with examples. 1 OR</li></ul>	CO3,L2 0M CO4,L2	
<ul><li>(b)Explain binary tree traversals with examples.10M</li><li>10. (a)Simplify Merge sort with an example and apply code for it. 10 OR</li></ul>	CO4,L2 M CO5,L3	
(b)Discover Depth first traversal with an example. 10M	CO5,L3	

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2022-23)						
COMPUTER SCIENC	CE CSCT21E	3	2022-'2	3	B.Sc.(MPCs,MCCs,MSCs)	
SEMESTER – II	PAPER –II	Μ	ax. Marks '	75	Pass Marks 30	
Guid	elines for paper set	ting '	DATA ST	RUC	CTURE'	
	Unit wise weight age of Marks					
	Section-A Section-B					
	(Short answer	quest	tions)		(essay questions)	
Unit-1	2				2	
Unit-2	2				2	
Unit-3	2				2	
Unit-4	2				2	
Unit-5	2				2	

- Each Short answer question carries 5 marks in Section -A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per

The weight age given by us

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

PAPER-II

Semester II	Course Code	Course Title	Hours	Credits
BSC(MPCS/MCCS/MSCS)	CSCT21B	Data Structures Lab	30	1

COURSE OUTCOME NO	Upon successful completion of this course, students should have the knowledge and skills to:	PROGRAM OUTCOME NO
CO1	implement stacks, queues using arrays and linked lists.	PO1, PSO1, PSO2, PSO4
CO2	Write program for conversion from infix to postfix.	PO1, PSO1, PSO2, PSO4
CO3	implement different sorting and searching techniques.	PO 7, PSO1, PSO2, PSO4
CO4	Construct binary trees and binary search trees.	PO 1, PSO1, PSO2, PSO4
CO5	implement binary tree and Graph traversals.	PO1,PO 7, PSO1, PSO2, PSO4

### Lab Experiments List

### Cycle - I

Week 1: Write a program to read 'N' numbers of elements into an array and also perform the following operation on an array

- Add an element at the beginning of an array
- Insert an element at given index of array
- Update a element using a values and index
- Delete an existing element

Week 2: Write Program to implement the Stack operations using an array.

Week 3: Write a program using stacks to convert a given infix expression to postfix.

Week 4: Write a program for arithmetic expression evaluation.

Week 5: Write Program to implement the Stack operations using Liked List.

Week 6: Write Program to implement the Queue operations using an array.

Week 7: Write Program to implement the Queue operations using Liked List.

Week 8: Write Program to implement circular Queue operations using an array.

### Cycle - II

Week 9: Write a program to implement de-queues.

Week 10: Write a program to implement single linked list.

Week 11: Write a program to implement double linked list.

Week 12: Write a program for Binary Search Tree Traversals.

Week 13: Write a program to search an item in a given list using the following Searching Algorithms

- Linear Search
- Binary Search.

Week 14: Write a program for implementation of the following Sorting Algorithms

- Bubble Sort
- Insertion Sort
- Merge sort

Week 15: Write a program for implementation of the following graph traversals.

- BFS
- DFS

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

### Title of the Paper: **E–COMMERCE & WEB DESIGNING** Semester: II

### PAPER-II

Course Code	CABT21A	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Fotal Marks	100
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

### **COURSE OBJECTIVES:**

The main objective of the course is to impart conceptual understanding on business transactions on worldwide web And electronic commerce & Electronic Customer Relationship Management and Web designing concepts for Providing quality content on website.

### **COURSE OUTCOMES:**

COURSE OUTCOME NO	on successful completion of this course, students should have the knowledge and skills to
CO1	in knowledge in E- commerce and its business models
CO2	ferentiate traditional and e – marketing and also gain knowledge in E- CRM and EPS
CO3	derstand the structure of HTML its basic tags
CO4	plement various HTML tags for web page development
CO5	derstand about web page designing

### <u>Syllabus</u>

UNIT I: An Overview on E-Commerce	(10periods)
1.1 Introduction E-Commerce	
1.1.1 Definition of E- Commerce and its advantages & disadvantages	
1.1.2 Electronic Data Interchange (EDI)	
1.1.3 E-Commerce transactional issues and challenges	
1.1.4 Difference between Commerce and E-Commerce	
1.2 Business Models for Ecommerce	
1.2.1 B2C -Business to consumer.	
1.2.2 B2B – Business to business	
1.2.3 C2B – Consumer to business.	
1.2.4 C2C – Consumer to consumer	
UNIT II: E-Marketing & E – CRM& Electronic Payment Systems	(10neriods)
2.1 Online Marketing	(Toperious)
2.1.1 Traditional Vs. F-Marketing	
2.1.2 Online Marketing	
2.1.2 Online Marketing 2.1.3 F-Advertising	
2.1.5 L-Advertising 2.1.4 Internet marketing	
2.7  F = CRM	
2.2.1 Definition of CRM and E-CRM and its Applications	
2.2.1 Definition of CRW and E-CRW and its Applications	
2.2.2 E- CKW Architectural components	
2.2.4 Depending and goals of E SCM	
2.2.4 Denemis and goals of $E = SCM$	
2.2.3 E-Logistics of UPS	(10noniada)
2.1 Turner of EDS	(Toperious)
5.1 Types of EPS	
3.2 Traditional payment system and modern payment system	
2.4 Decement executions	
3.4 Payment security	(10 • 1)
UNIT IV: Introduction to Web Designing	(12periods)
4.1  III  III	
4.1.1 Define HTML	
4.1.2 Structure of HTML	
4.1.3 Basic HTML tags	
4.1.4 Formatting HTML tags	
4.2.1 Ordered List	
4.2.2 Unordered List	
4.3Links	
4.3.1 Link tag	
4.3.1 Link tag 4.3.2 Image tag	
4.3.1 Link tag 4.3.2 Image tag 4.3.3 Marquee tag	
4.3.1 Link tag 4.3.2 Image tag 4.3.3 Marquee tag 4.4 <b>Tables</b>	
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4<b>Tables</b></li> <li>4.4.1 Table Creation</li> </ul>	
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4<b>Tables</b></li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> </ul>	
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4 Tables</li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> <li>4.5 forms&amp; Frames</li> </ul>	
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4<b>Tables</b></li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> <li>4.5forms&amp; Frames</li> <li>4.5.1 Forms creation</li> </ul>	
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4 Tables</li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> <li>4.5 forms&amp; Frames</li> <li>4.5.1 Forms creation</li> <li>4.5.2 Form tag</li> </ul>	
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4<b>Tables</b></li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> <li>4.5<b>forms&amp; Frames</b></li> <li>4.5.1 Forms creation</li> <li>4.5.2 Form tag</li> <li>4.5.3 Input fields of form</li> </ul>	
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4<b>Tables</b></li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> <li>4.5<b>forms&amp; Frames</b></li> <li>4.5.1 Forms creation</li> <li>4.5.2 Form tag</li> <li>4.5.3 Input fields of form</li> <li>4.5.4 Frame Creation</li> </ul>	
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4<b>Tables</b></li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> <li>4.5<b>forms&amp; Frames</b></li> <li>4.5.1 Forms creation</li> <li>4.5.2 Form tag</li> <li>4.5.3 Input fields of form</li> <li>4.5.4 Frame Creation</li> <li>4.5.5 Frameset tag</li> </ul>	
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4 Tables</li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> <li>4.5 forms&amp; Frames</li> <li>4.5.1 Forms creation</li> <li>4.5.2 Form tag</li> <li>4.5.3 Input fields of form</li> <li>4.5.4 Frame Creation</li> <li>4.5.5 Frameset tag</li> <li>4.5.6 Frame tag</li> </ul>	
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4<b>Tables</b></li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> <li>4.5forms&amp; Frames</li> <li>4.5.1 Forms creation</li> <li>4.5.2 Form tag</li> <li>4.5.3 Input fields of form</li> <li>4.5.4 Frame Creation</li> <li>4.5.5 Frameset tag</li> <li>4.5.6 Frame tag</li> <li>UNIT V: Introduction to WIX Editor</li> </ul>	(18periods)
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4Tables</li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> <li>4.5forms&amp; Frames</li> <li>4.5.1 Forms creation</li> <li>4.5.2 Form tag</li> <li>4.5.3 Input fields of form</li> <li>4.5.4 Frame Creation</li> <li>4.5.5 Frameset tag</li> <li>4.5.6 Frame tag</li> <li>UNIT V: Introduction to WIX Editor</li> <li>5.1 Getting Started with Wix</li> </ul>	(18periods)
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4Tables</li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> <li>4.5forms&amp; Frames</li> <li>4.5.1 Forms creation</li> <li>4.5.2 Form tag</li> <li>4.5.3 Input fields of form</li> <li>4.5.4 Frame Creation</li> <li>4.5.5 Frameset tag</li> <li>4.5.6 Frame tag</li> <li>UNIT V: Introduction to WIX Editor</li> <li>5.1 Getting Started with Wix</li> <li>5.1.1 Adding and Editing Text</li> </ul>	(18periods)
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4Tables</li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> <li>4.5forms&amp; Frames</li> <li>4.5.1 Forms creation</li> <li>4.5.2 Form tag</li> <li>4.5.3 Input fields of form</li> <li>4.5.4 Frame Creation</li> <li>4.5.5 Frameset tag</li> <li>4.5.6 Frame tag</li> <li>UNIT V: Introduction to WIX Editor</li> <li>5.1 Getting Started with Wix</li> <li>5.1.1 Adding and Editing Text</li> <li>5.1.2 Adding a Site Title</li> </ul>	(18periods)
<ul> <li>4.3.1 Link tag</li> <li>4.3.2 Image tag</li> <li>4.3.3 Marquee tag</li> <li>4.4Tables</li> <li>4.4.1 Table Creation</li> <li>4.4.2 Attributes of Table</li> <li>4.5forms&amp; Frames</li> <li>4.5.1 Forms creation</li> <li>4.5.2 Form tag</li> <li>4.5.3 Input fields of form</li> <li>4.5.4 Frame Creation</li> <li>4.5.5 Frameset tag</li> <li>4.5.6 Frame tag</li> <li>UNIT V: Introduction to WIX Editor</li> <li>5.1 Getting Started with Wix</li> <li>5.1.1 Adding and Editing Text</li> <li>5.1.2 Adding a Site Title</li> <li>5.1.3 Changing Your Text Font</li> </ul>	(18periods)

### 5.1.5 Adding Language Fonts

- 5.1.6 Adding Elements to Your Site
- 5.1.7 Arranging the Content on Your Site's Pages
- 5.1.8 About the Header
- 5.1.9 About the Footer

### 5.2Adding an Image to Your Page Background

- 5.2.1 Uploading Your Own Background Image
- 5.2.2 Adding a Video to Your Page Background
- 5.2.3 Uploading Your Own Video Page Background
- 5.2.4 Uploading Your Own Images
- 5.2.5 Adding a Logo to Your Site
- 5.2.6 Adding a Link to an Image

### 5.3 Gallery and Button

- 5.3.1 Adding a Gallery
- 5.3.2 Cropping and Editing Gallery Images
- 5.3.3 Adding and Setting Up an Icon Button
- 5.3.4 Adding a Link to a Button

### 5.4 Video

- 5.4.1 Adding a Video from YouTube
- 5.4.2 Retrieving a YouTube URL

### 5.5 Menu

- 5.5.1 Adding a Site Menu
- 5.5.2 Customizing Your Menu Design
- 5.5.3 Adding and Deleting a Menu Folder
- 5.5.4 Reordering Menu Items
- 5.5.5 Changing the Direction of Menu Items

### **Text Book:**

- 1. Uttam Kumar Roy, Web Technologies, Oxford University Press.
- 2. E-Commerce- A Managerial Perspective- P. T. Joseph, Prentice- Hall of India, New Delhi, 2005.

### **References:**

1. Kogent Learning Solutions Inc.(Author), "Black Book HTML 5.0", dreamtech.

2. Daniel Amor, E-Bussiness R(Evolution), Pearson Edude, New Delhi, 2005.

### Weblink: https://support.wix.com/en/the-wix-editor/editor-basics

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

Computer Science		CABT21A	2022-23	B. Com (Computers Applications)	
Semes	ter - II	PAPER-I			Credits: 1

#### WEB DESIGNING LAB

Credits: 1

#### **COURSE OBJECTIVES:**

The purpose of this course is to introduce to students to the field of creation web pages using HTML language. The students will be able to enhance their analyzing and help to creation for Web Site Design

### **COURSE OUTCOMES:**

COURSE OUTCOME	on successful completion of this course, students should have the knowledge and skills to
NO	
CO1	Implement HTML tags.
CO2	plementing lists and tables in web pages.
CO3	plementing frames in web pages.
CO4	plementing frames in web pages.
CO5	eation of CSS in a web page.

Week 1: Write a HTML program to print text in bold and italic font.

- Week 2: Write a HTML program to print Heading tags.
- Week 3: Write a HTML program using Text formatting tags
- Week 4: Write a HTML program to implement unordered lists.Write a HTML program to implement order lists.
- Week 5: Write a html file which display 3 images at LEFT, RIGHT and CENTER respectively in the browser.
- Week 6: Create a HTML file which contains hyperlinks.
- Week 7: Write a HTML program to Create a table
- Week 8: Write a HTML program to Create a table using RowSpan and ColSpan.
- Week 9: Write a HTML program to Create a simple form
- Week 10: Create a Registration form that interacts with the user. Collect login name, password, date of birth, gender, address, qualification.

Week 11: Create a HTML page using frameset tag.

### Developing Websites using WIX: https://www.wix.com/blog/2020/05/how-to-design-a-website/

Week 12: An online store to sell your products.

Week 13: A photography website to display and sell prints.

Week 14:A fitness website to book new clients.

Week 15: A restaurant website to help with online orders, delivery and payment.

Vuyyuru- 521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### Title: E-Commerce & Web Designing Model Paper

CLASS: B.Com (Computer Applications) Course Code: CABT21A Semester: II	Max. Marks: 75M Time: 3 Hours
SECTION A	(20MARKS)
<ul> <li>1. (a) Explain the E-Commerce with advantages and disadvantages 4M OR</li> <li>(b) What are transactional issues in ecommerce? 4M</li> </ul>	
<ul> <li>2. (a) Compare Traditional marketing and E-Marketing. 4M</li> <li>OR</li> <li>(b) Define CRM and E-CRM and its applications . 4M</li> </ul>	
<ul> <li>3. (a)distinguish between traditional and modern payment system . 4M</li> <li>OR</li> <li>(b)what are different payment securities in EPS. 4M</li> </ul>	
<ul> <li>4. (a)Define structure of HTML. 4M OR</li> <li>(b) Explain i) link tag ii)image tag iii) marquee tag . 4M</li> </ul>	
<ul> <li>5. (a)write the procedure to add and edit text in WIX editor. 4M OR</li> <li>(b)how to add a link to a button. 4M SECTION B ( 50MARKS)</li> </ul>	
Answer all Questions. (Restrict to a maximum of 2 subdivisio	nc)
	<b>A</b> (5)
6.(a) Explain briefly about EDI10M OR	
(b) Explain different Bussiness models in ecommerce ? 10M	
7.(a) Illustrate E- CRM Architectural components 10M OR	
(b)explain about E-Advertising . 10M	
8. (a)explain different Electronic Payment Systems.10M OR	
(b)illustrate various steps involved in electronic payment. 10M	
9.(a) Demonstrate the concept of Table creation by apply all Attributes. 10M OR	
(b) Define forms in html and creation of form with all input types.10M	
<ul> <li>10. (a) Explain the steps to add elements to your site. 10M</li> <li>OR</li> <li>(b) How to add images and logo to your site. 10M</li> </ul>	

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2022-23)

COMPUTER SCIENCE	CSCT21B	2022-'23	B.Com.(CA)	
SEMESTER – II PA	PER –II Ma	x. Marks 70	Pass Marks 28	
Guidelines for	r paper setting 'E-Co	ommerce Web	) Designing'	
	Unit wise weight a	<u>ge of Marks</u>		
	Section-	А	Section-B	
	(Short answer q	uestions)	(essay questions)	
Unit-1	2		2	
Unit-2	2		2	
Unit-3	2		2	
Unit-4	2		2	
Unit-5	2		2	
	COMPUTER SCIENCE SEMESTER – II PA Guidelines for Unit-1 Unit-2 Unit-3 Unit-4 Unit-5	COMPUTER SCIENCECSCT21BSEMESTER – IIPAPER –IIMa Guidelines for paper setting 'E-C Unit wise weight a Section- (Short answer q Unit-1Unit-12Unit-22Unit-32Unit-42Unit-52	COMPUTER SCIENCECSCT21B2022-'23SEMESTER – IIPAPER –IIMax. Marks 70Guidelines for paper setting 'E-Commerce WelUnit wise weight age of MarksUnit wise weight age of MarksSection-A(Short answer questions)Unit-1Unit-22Unit-32Unit-42Unit-52	COMPUTER SCIENCECSCT21B2022-'23B.Com.(CA)SEMESTER – IIPAPER –IIMax. Marks 70Pass Marks 28Guidelines for paper setting 'E-Commerce Web Designing' Unit wise weight age of MarksDesigning' (sessay questions)Unit vise weight age of MarksSection-ASection-B(Short answer questions)(essay questions)Unit-122Unit-222Unit-322Unit-422Unit-522

 $\circ$  Each Short answer question carries 5 marks in Section –A

• Each Essay question carries 10 marks in Section -B

• The Question papers setters are requested to cover all the topics in the syllabus stipulated as per

the weight age given by us

Vuyyuru-521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

### Title of the Paper: **Information Technology** Semester: II

### PAPER-III

Course Code	CABT21A	Course Delivery Method	Class Room / Blended Mode – Both
Credits	4	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

### **COURSE OBJECTIVES**:

It provides to learn computer basics and basic principles of using Windows operation system and be able to access the Internet, data communication, Software, hardware and various new technologies in information technology.

### **Course Outcomes:**

COURSE OUTCOME NO	Upon successful completion of this course, students should have the knowledge and skills to
CO1	Understand fundamental concepts of a computer and its basic components
CO2	Understand basic functioning of an operating system and customizing Windows Desktop
CO3	Analyze type of soft ware's and programming languages
CO4	Have knowledge in basic Network and Data Communication Concepts
CO5	Understand the need of data mining and get familiarize with basics of new concepts like KDD, OLAP

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2022-23)

Semester II	Course Code	Course Title	Credits	Periods
B.Com.(E-Commerce)	CABT21A	Information Technology	4	75
UNIT-I: INTRODUCTION:			131	Periods
1.1 Introduction to computers				
1.2 Generations of computers				
1.3 An overview of computer s	ystem - Types o	f computers		
1.4 Input & Output Devices.				
1.5 Hardware: Basic component	nts of a comput	er system- Control unit– A	LU- Input/o	output function
1.6 Memory – RAM – ROM –	EPROM - PRO	M and Other types of memory	ory.	
UNIT-II: OPERATING SYS	ГЕМ (OS):			12Period
2.1 Meaning - Definition & Fun	nctions.			
2.2 Types of OS - Booting proc	ess			
2.2.1 DOS – Commands (int	ernal & externa	l) - Wild card characters		
2.3 Windows: Using the Start N	Aenu –Control I	Panel – Using multiple		
2.3.1 Windows – Customizir	ng the Desktop -	- Windows accessories (Pre	ferably late	st version
of windows or Linux Ubuntu	ı).			
Unit-III: SOFTWARE:				15Periods
3.1 System software and applic	ation software.			
3.1.1 Operating system windo	ows OS,			
3.1.2 Mobile device operating	g system and no	tebook operating systems		
3.2 Application software Types	of personal app	blication software		
3.2.1 Spread sneet-data manage	ement			
3.2.2 word processing				
3.2.5 Desktop publishing	IM			
3 3 Programming Languages	1101			
3.3.1 Assembly language				
3 3 2 Procedural language non	-procedural land	mage natural programming	a language	
3 3 3 Hypertext mark-up langu	-procedurar lang	anguage object-oriented pr	ogramming	language
5.5.5 Hypertext mark-up langua	age, modening it	inguage, object-oriented pr	ogramming	language.
Unit-IV: DATA COMMUNIC	CATION:			20 Periods
4.1 Telecommunication and Ne	tworks Commu	nication media& channel ca	able media	
4.1.1 Broad cast media channel	s twisted pair			
4.1.2 Coaxial cable, fibers optic Infrared global positionin	cal cable, micro	wave, satellite, radio, cellu	lar radio,	
4.2 Introduction. Analog and D	igital signals. m	odulation need of modulati	ons, moder	18.
4.3 Telecommunication System	communication	n processors:		
4.3.1 Modem		1		

- 4.3.2 Multiplexers
- 4.3.3 Front –end-processor.
- 4.4 Networks LAN, WAN, VAN, virtual private network (VPN).
- 4.5 Internet, intranet and Extranets
- 4.5.1 The evolution of the internet, service provided by the internet, World Wide Web.

### **Unit-V: NEW TECHNOLOGIES:**

5.1New technologies in Information Technology:

5.1.1 Introduction to hyper media, artificial intelligence and business intelligence, knowledge discovery

in database (KDD)

5.2 Data warehouse and data marts. Data mining and OLAP.

#### **Student Activity:**

Students have to submit assignments and give seminars on various topics allotted to them. **Total of 5 Hrs is allotted for student seminars**. Student activity also includes gathering of information related to latest technologies in computers.

### Library Activity:

Students will visit library in their allotted time and will refer various text books to gather information for their assignments.

#### **TEXT/ REFERENCE BOOKS:**

1. B.E.V.L.Naidu, V.V.. Devi Prasad Konti, Ganti Naga Srikanth, Himalaya publishing House.

2. Introduction to Computers: Peter Norton, McGraw Hill

@@@@

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2022-23)

**MODEL Question Paper:** 

PAPER TITLE: INFORMATION TECHNOLOGY CLASS: B.Com (E-Commerce) SEMESTER: II TIME: 3 Hrs.

**MAX: 70M** 

**COURSE CODE: CABT21A** 

5X4 = 20M

### SECTION – A

### Answer ALL of the following

1.A) Illustrate the characteristics of RAM and ROM. (CO1, L2)
(OR)
.B)Explain Block Diagram of computers
2.A)Define Operating system. What are different types of OS? (CO2, L1)
(OR)
B)Explain\_Windows accessories
3.A)Demonstrate application software and system software. (CO3, L2)
(OR)
B)What are the different types of networks? (CO4, L1)
4.A)Explain the steps involved in the process of KDD. (CO5, L2)
(OR)
B)Explain about input devices. (CO1, L2)
5.A)What are analog and digital signals? (CO4, L1)
(OR)
B)Explain Data warehouse. (CO5, L2)

### SECTION -B

### Answer the following

5x10=50M

- 1. a) Explain the block diagram of computer. (CO1, L2) **OR** 
  - b) Explain the generations of computers. (CO1, L2)
- 2. a) What are the functions of operating system? (CO2, L1)
  - **OR** b) What are DOS Internal and External commands? (CO2, L1)
- 3. a) Explain the characteristics of various types of programming languages. Give examples. (CO3, L2)

OR

- b) Summarize the concepts on CAD, CAM and CIM. (CO3, L2)
- 4. a) Define the various types of Communication media and channels. (CO4, L1)

OR

b) What are the Advantages and Disadvantages of Internet? (CO4, L1)

5. a) Demonstrate On-Line Analytical process (OLAP). (CO5, L2)

OR

b) Explain about Artificial Intelligence and Business Intelligence. (CO5, L2) @@@@

	AG & SG SIDDHARTHA An Autonomous college w (With )	COLLEGE OF A vithin the jurisdicti	RTS AND SC on of Krishna nic Year 2021	CIENCES - VUYYURU. a University A.P, India.	
	COMPUTER SCIENCE	ECCSCT21	2022-'23	B.Com (E-Commerce)	]
S	SEMESTER – II	PAPER – II		Max. Marks 7	0
		Syllabus: Program	ming in 'C'		
	NO of Hours: 4	No Of Credits:	3	Pass Marks :28	
UNIT-I: (	General Fundamentals& Pro	gramming Languag	es		10Hrs
General l	Fundamentals: Introduction t	to computers: Block	diagram of a	computer, characteristics a	nd
limitation	s of computers, applications o	of computers, types	of computers,	computer generations.	
Introducti	on to Algorithms and Program	nming Languages: A	Algorithm – K	ey features of Algorithms,	
Flow Cha	rts, <b>Programming Language</b>	es – Generations of I	Programming	Languages –	
Structured	l Programming Language- De	sign and Implemen	tation of Corre	ect, Efficient and	
Maintaina	ble Programs.				
UN	NT- II: Introduction To C &	& Decision Making	control State	ments	12Hrs
Introductio	on to C: Introduction – Structure	of C Program – Writi	ng the first C P	rogram – File used in C Prog	ram –
Compiling	and Executing C Programs – Us	sing Comment, Keyv	vords – Identifie	ers – Basic Data Types in C -	- Variables
- Constant	s – I/O Statements in C-Operato	rs in C- Programming	g Examples.	tomonta Conditional Pranal	ina
Statements	- Iterative Statements - Nested	Loops – Break and C	ontinue Statem	ent = Goto Statement	nng
III	NIT III: Arrays	Loops Dreak and C	Shinde Statem	ent Goto Statement.	10 Hrs
Arrays: I	$ntroduction - Declaration of \lambda$	Arrays – Accessing	elements of th	e Array – Storing Values	
in Arrav–	Operations on Arrays – one of	limensional, two di	nensional and	multi dimensional arrays.	
character	handling and strings.				
UNIT-IV	Functions & Structures				13Hrs
Funct	<b>ions:</b> Introduction – using fur	nctions – Function d	eclaration/ pro	ototype – Function definition	on –
function	call – return statement – Passi	ing parameters – Sc	ope of variable	es – Storage Classes –	
Recursive	e functions.		1	C	
Struc	ture, Union, and Enumerate	ed Data Types: Intr	oduction – Ne	sted Structures –	
Arrays of	Structures – Structures and F	Functions- Union -	Arrays of Unio	ons Variables –	
Unions in	side Structures – Enumerated	Data Types.			
UNIT-V:	Pointes&Files	• •			15Hrs
Pointers:	Understanding Computer Mer	mory – Introduction	to Pointers -	declaring Pointer	
Variables	- Pointer Expressions and Po	inter Arithmetic – N	Null Pointers	- Memory Allocation in	
C Program	ns – Memory Usage – Dynam	ic Memory Allocat	ion – Drawbac	ks of Pointers	
Files: Intr	oduction to Files – Using File	s in C – Reading D	ata from Files	– Writing Data to	
Files – De	etecting the End-of-file – Erro	r Handling during F	File Operations	- Accepting	
Command	Line Arguments.				
	BOOKS				
1 E	Ralagurusamy – Programmin	g in ANSIC – Tata	McGraw-Hill	oublications	

E Balagurusamy – Programming in ANSIC – Tata McGraw-Hill publications.
 Brain W Kernighan and Dennis M Ritchie - The 'C' Programming language" -

Vuyyuru- 521165. NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

> Title: Programming in 'C' Model Paper

CLASS: B.Com (e-Com-Computers) Semester: II	Course Code: ECCSCT21	Max. Marks: 75M Time: 3 Hours
	SECTION A Answer all Questions.	(20MARKS)
1. (a) What is Algorithm ? Explain with Explain OR	ample and Flow Chart? 4M	
(b) Explain Programming Methodolog	ies in C. 4M	
2. (a) Explain Data Types in C. 4M		
(b) Explain the Working of GOTO Sta	atement with Example Program4M	
3. (a)What is Array ? Explain in Detail.	4M	
(b)Difference Between While and Do	-While loop.4M	
4. (a)Explain Types of User Defined Fur	actions in C. 4M	
OR (b)Define Union Concept in C with ex	ample program 4M	
5. (a)Define Pointer and write the feature	s of pointers. 4M	
(b)Explain Different types of Files use	d in C Program. 4M	
	Answer all Questions.	
6.(a) Explain the Structure of C Program? W	ith example program. 10M	
(b) Explain in detail about Generations	of Programming Languages. 10M	
7.(a) Explain Looping Statements in C with	example Programs. 10M	
(b)Expalin Different Types of Operato	rs in C. 10M	
8. (a)What Is an Array? Explain One-Din	nensional Array with an Example Pr	rogram in C.10M
OR (b) What Is an Array? Explain Two-Di	mensional Array with an Example I	Program.10M
9.(a) What Is Function? Explain Function Example Program in C. 10M	Declaration, Function Definition &	Function Calling with an
OR (b) What is String? Explain list any five S	tring Handling Functions With Syntaxe	es& Examples.10M
10. (a) Explain Pointers Concepts in details	in C with Example Program. 10M	
(b) What is File? Explain any File Handl	ing Functions in C. 10M	

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
An Autonomous college within the jurisdiction of Krishna University A.P, India.
(With Effect from Academic Year 2022-23)

		,				
ECCSCT21	2022-'23	B.Com.(e-Com- Computers)				
APER –II Ma	x. Marks 70	Pass Marks 28				
Guidelines for paper setting <b>Programming in'C'</b>						
Unit wise weight age of Marks						
Section-	A	Section-B				
(Short answer questions)		(essay questions)				
2		2				
2		2				
2		2				
2		2				
2		2				
	E ECCSCT21 APER –II Ma ines for paper setting <u>Unit wise weight a</u> Section- (Short answer q 2 2 2 2 2 2	E ECCSCT21 2022-'23 APER –II Max. Marks 70 ines for paper setting Programmin <u>Unit wise weight age of Marks</u> Section-A (Short answer questions) 2 2 2 2 2 2	EECCSCT212022-'23B.Com.(e-Com-Computers)APER -IIMax. Marks 70Pass Marks 28ines for paper settingProgramming in'C'Unit wise weight age of MarksSection-ASection-ASection-B(Short answer questions)(essay questions)2222222222222222222222			

 $\circ$  Each Short answer question carries 5 marks in Section –A

○ Each Essay question carries 10 marks in Section –B

• The Question papers setters are requested to cover all the topics in the syllabus stipulated as per

the weight age given by us

### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2021-22)

COMPUTER SCIENCE	ECCSCP21	2022-'23	B.Com (E-Commerce)
SEMESTER – II	PAPER – II		Max. Marks 70
	Syllabus: Programmi	ng in 'C' Lab	

### Cycle-I

### Week 1:

Write a C program to check whether the given two numbers are equal, bigger or smaller?

### Week 2:

Write a C program to perform arithmetic operations using Switch...case?

### Week 3:

 $\Box$  Write a program to find the sum of individual digits of a positive integer.

 $\Box$  Write a program to check whether the given number is Armstrong or not.

### Week 4:

Write a program to generate the first N terms of the Fibonacci sequence.

### Week 5:

Write a program to find both the largest and smallest number in a list of integer values

### Week 6:

 $\Box$  Write a program that uses functions to add two matrices.

 $\Box$  Write a program for multiplication of two n X n matrices.

### Week 7:

Write a program to demonstrate refection of parameters in swapping of two integer values using Call by

Value& Call by Address.

### Week 8:

Write a program to calculate factorial of given integer value using recursive functions.

### Cycle-II

#### Week 9:

Write a program to search an element in a given list of values.

#### Week 10:

Write a program to illustrate pointer arithmetic.

#### Week 11:

Write a program to sort a given list of integers in ascending order.

### Week 12:

Write a program to calculate the salaries of all employees using Employee (ID, Name, Designation, Basic Pay,

DA, HRA, Gross Salary, Deduction, Net Salary) structure.

a. DA is 30 % of Basic Pay

b. HRA is 15% of Basic Pay

c. Deduction is 10% of (Basic Pay + DA)

d. Gross Salary = Basic Pay + DA+ HRA

e. Net Salary = Gross Salary - Deduction

#### Week 13:

Write a program to perform various string operations.

#### Week 14:

Write a program to read the data character by character from a file.

#### Week 15:

Write a program to create Book (ISBN, Title, Author, Price, Pages, Publisher) structure and store book details

in a file and perform the following operations

a. Add book details

- b. Search a book details for a given ISBN and display book details, if available
- c. Update a book details using ISBN
- d. Delete book details for a given ISBN and display list of remaining Books.
# A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

# VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

# Accredited by NAAC with "A" Grade

# 2022-2023



# **DEPARTMENT OF COMPUTER SCIENCE**

# **MINUTES OF BOARD OF STUDIES**

# **ODD SEMESTER**

26-10-2023

Minutes of the meeting of Board of Studies in Computer Science for Semester I, III & V of I, II & III years B.Sc. (MPCs, MCCs, MSCs), B.Com. (C.A.) and B.Com (e-Commerce) Life Skill Course and Skill Development Course of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 3.00 P.M on 26-10-2022 in the Department of Computer Science.

Sri T.NagaPrasadaRao Presiding Members Present: Chairman Head, Department of Computer Science, AG&SG Siddhartha Degree College of Arts & Science. (T.Naga Prasada Rao) ----- University Principal, Krishna University College of Engineering 2) ------(Dr. M. Babu Reddy) Nomine and Technology, Machilipatnam. Subject Principal, HOD of Department of Computer Science 3). -----(Dr. P. J. S Kumar) Expert A.N.R College Gudivada. TPO, Department of Computer Science 4) -----Subject PB Siddhartha College of Arts & Science, VJA (Mr. K. Sridhar) Expert .Net Developer, Maven Soft System Pvt. Ltd 5) ---------- Industrial (R. Sowjanya) Madaapur, Hyderabad. Expert 6). S. Prabharate Member Lecturer in Computer Science, AG&SG Siddhartha (S. Prabhavathi) Degree College of Arts & Science, Vuyyuru-521165 Lecturer in Computer Science, AG&SG Siddhartha Member (A. Sravani) Degree College of Arts & Science, Vuyyuru-521165 Lecturer in Computer Science, AG&SG Siddhartha ..... Member 8)..... (A. Naga Sriniyasa Rao) Degree College of Arts & Science, Vuyyuru-521165 Lecturer in Computer Science, AG&SG Siddhartha 10 1 Member (G.Katyayini) Degree College of Arts & Science, Vuyyuru-521165 ..... Member Lecturer in Computer Science, AG&SG Siddhartha 10)..... (O.Teja Sr Degree College of Arts & Science, Vuyyuru-521165 11) n:t ..... Member Lecturer in Computer Science, AG&SG Siddhartha (K.Znana Krishna Teja) Degree College of Arts & Science, Vuyyuru-521165 12) Gravanya Student in M.Sc. CS, AG& SG Siddhartha - Member (G.Lavanya) Degree College of Arts & Science, Vuyyuru-521165 13) gr Jahannami Member Student in B.Sc. MPCs, AG& SG Siddhartha (G.Jahnavi) Degree College of Arts & Science, Vuyyuru-521165



## Agenda for B.O.S Meeting.

- To discuss introducing Syllabi and Model papers for Elective Skill Enhancement Courses (SEC) for B.Sc. (MPCs, MCCs) & B.Com (C.A) programmes in Fifth/Sixth Semester adopting COs in line with guidelines of OBE following Blooms Taxonomy for the students admitted in the Academic year 2020-2021 and onwards.
- 2. To Discuss and approve the Structure and Syllabi and model papers of B. Sc. (MPCs, MCCs, MSCs), B.Com (C.A) & B.Com(e-commerce-Computers) programme in First and Third semesters for the student admitted in the academic year 2022-23 and onwards.
- 3. To recommend any changes in the syllabi for I, III, V & VI Semesters of I, II, III year Degree B.Sc.(MPCs, MCCs, MSCs), B.Com.(C.A.) and B.Com(e-commerce-Computers).
- 4. To Introduce a Life Skill Course and Skill Development Course for all B.Sc and B.Com from the Academic Year 2022-23.
- 5. To recommend the teaching and evaluation methods to be followed under Autonomous status.
- 6. To recommend the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG & SG Siddhartha Degree College of Arts & Science College, Vuyyuru.
- 7. Any other matter

#### Resolutions.

- It is Resolved and Recommended to adopt the same structure, syllabi & Model papers for Elective Skill Enhancement Courses (SEC) for B.Sc. (MPCs, MCCs) & B.Com (C.A) programmes with titles Big Data Analytics using R, Data science using Python in Fifth/Sixth Semester adopting COs in line with guidelines of OBE following Blooms Taxonomy for the students admitted in the Academic year 2020-2021 and onwards.
- 2. It is Resolved and recommend to continue the syllabi without any changes, but only changes on Model Paper i.e. for I Semester of I Year & V/VI Semester of III year B.Sc. (MPCs, MCCs, MSCs), B.Com.(CA) & B.Com(e-commerce- Computers).
- 3. It is Resolved and Recommend to introduce new Syllabi and Model Question paper as per new regulations in III Semester of II Year Degree B.Sc. (MPCs, MCCs) and B.Com(CA).
- 4. It is Resolved to implements Life Skill Course and Skill Development Course for all B.Sc and B.Com from the Academic Year 2022-23.
- 5. It is resolved to continue the teaching and evaluation methods to be followed under Autonomous status.
- 6. It is resolved to continue the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG & SG Siddhartha Degree College of Arts & Science College, Vuyyuru.
- 7. Any other matter

#### Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of LMS and LCD projector to display on power board etc. for better understanding of concepts.

Evaluation of a student is done by the following procedure:

There are two components in the Valuation and Assessment of a student – Internal Assessment (IA) Semester Examinations (SE). For the Batch of Students Admitted from 2022-23.

#### Internal Assessment (IA)

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical marks for IA 10 and 40 Marks for External Exam.
- Each IA written examination is of 1 hour 30 minutes duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Attendance will be for 5 Marks. The other innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /PPT/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation.
- The semester examination will be of 3 hours with maximum 70 marks.

## Internal Assessment (IA) For the Batch of Students Admitted from 2021-22.

- The maximum mark for IA is 25 and SE is 75 for theory; and for practical marks for IA 10 and 40 Marks for External Exam.
- Each IA written examination is of 1 hour duration for 15 marks. The tests will be conducted centrally. The average of two such IA is calculated for 15 marks.

- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of
- assignments/ quiz/ seminars /PPT/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation.
- The semester examination will be of 3 hours with maximum 75 marks.

Internal Assessment (IA) For the Batch of Students Admitted from 2020-21.

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical marks for IA 10 and 40 Marks for External Exam.
- Each IA written examination is of 1 hour 30 minutes duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Attendance will be for 5 Marks. The other innovative component is for 5 marks, conducted during
  the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/
  seminars /PPT/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/
  Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff
  member/ in charge of the subject in advance. Each student should explain and defend his/her
  presentation.
- The semester examination will be of 3 hours with maximum 70 marks.

#### Semester Examinations (SE)

- A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.
- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration & Foundation course 2 hours irrespective of the number of credits allotted to it.
- If a candidate fails to obtain pass marks even after the due to less mark in the IA examination, the marks of the next examination will be converted to be out of 100.
- Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/she gets 40/100) and the result shall be declared as 'PASS'.
- The maximum marks for each Paper shall be 100.

Question paper guide lines for Practical Examinations at the end of Semesters I, III & V Two Practical Programs to be conducted out of 15 programs at the end of Semester I, III & V Practical Examination time 3Hrs and Maximum Marks 50 Scheme of valuation Semesters – I, III & V B.Sc.& B.Com.(C.A), B.Com.(e-commerce-Computers).

#### Computer Science Practical's - External (Time: 3 hrs.) Total Marks: 40M

	1. Programs wri	ting(2)	:20 marks,
2. Vi	va voice	:	5 marks
3. Ex	ecution & Result	:	15 marks

Total Marks : 40

#### **Computer Science Practical's- Internal**

Total Marks: 10 M

Chairman

1. Record : 10 marks

6.) Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council.

7)Discussed and empowered the HOD to suggest the panel of the paper setters and examiners to the controller of the examinations.

8). We implemented online certificate courses & Internships such as NPTL, APSSDC - PYTHON, R-Programming, Amazon Web services and JAVA----- etc. To fill the curriculum gaps from II year Degree on words

9). Suggestions

			Append	<u>ix-I</u>						
L (202)	<b>IST OF THE</b> 2 – 2023) BSC	COURS	ES REVISED/ IN MCCS) I III SEN	TRO IEST	DUCE	D IN F B	V/VI Sc (M	SEMES	TERS Cs M	5 SCs)
(202)				H	rs. /	Cre	edits		Marks	505)
SEM NO	M Course Course Code No.	Course No.	Title of Course	Th.	Lab	Th.	Lab	Int. Max. Marks	SEE	Total Marks
	SECCSCT01	<i>с</i> <b>л</b>	Web Interface Designing Technologies	3		3		30	70	100
	SECCSCP01	0A	Web Interface Designing Technologies Lab		3		2	10	40	50
V/VI	SECCSCT02	7.4	Web Applications Development using PHP& MYSQL	3		3		30	70	100
	SECCSCP02	Web Applications Development using PHP& MYSQL Lab		3		2	10	40	50	
	OR							I		
	SECCSCT03		Internet of Things	3		3		30	70	100
	SECCSCP03	6B	Internet of Things Lab		3		2	10	40	50
	SECCSCT04	7B	Application Development using Python	3		3		30	70	100
	SECCSCP04	12	Application Development using Python Lab		3		2	10	40	50
	and an and a start of the start	I		OR	1	2		20	70	100
<b>X</b> 7 / <b>X</b> 7 <b>X</b>	SECCSC105	6C	Data science	3	2	3	2	30	/0	100
V/VI	SECCSCF05		Python for Data	3	3	3	2	30	70	100
	SECCSCP06	7C	Python for Data Science Lab		3		2	10	40	50
III	CSCT37	3A	Data Base Management System	3		3		25	75	100
III	CSCP37	3A	Data Base Management System Lab		2		1	10	40	50
Ι	CSCT11B	IA	Problem solving in C	3		3		30	70	100
Ι	CSCP11B	IA	Problem solving in C Lab		2		1	10	40	50

# Appendix-II

# LIST OF THE COURSES REVISED/ INTRODUCED IN V/VI SEMESTERS (2022 – 2023) B.COM (C.A) I,III SEMESTERS OF B.Com(C.A)& B.Com(e-commerce-Computers)

SEM NO	C	C			Hrs. / Week		edits	Marks		
	Course Code	Course No.	Title of Course	Th.	Lab	Th.	Lab	Int. Max. Marks	SEE	Total Marks
	SECCAT01	61	Big data Analytics using R	3		3		30	70	100
	SECCAP01	0A	Big data Analytics using R Lab		3		2	10	40	50
	SECCAT07	7.4	Data Science using Python	3		3		30	70	100
	SECCAP07	/A	Data Science using Python Lab		3		2	10	40	50
				OR						
	SECCAT03	6D	Mobile application development	3		3		30	70	100
	SECCAP03	UD	Mobile application development Lab		3		2	10	40	50
	SECCAT04		Cyber Security and Malware Analysis	3		3		30	70	100
	SECCAP04	7B	Cyber Security and Malware Analysis Lab		3		2	10	40	50
V/VI	OR									
	SECCAT05	60	E Commerce Application Development	3		3		30	70	100
	SECCAP05	00	E Commerce Application Development Lab		3		2	10	40	50
	SECCAT06	70	Real time governance system (RTGS)	3		3		30	70	100
	SECCAP06		Real time governance system (RTGS) Lab		3		2	10	40	50
				OR						
V/VI	SECCAT07		Multimedia Tools and Applications	3		3		30	70	100
	SECCAP07	6D	Multimedia Tools and Applications Lab		3		2	10	40	50
	SECCAT08	7D	Digital Imaging	3		3		30	70	100

	SECCAP08		Digital Imaging Lab		3		2	10	40	50
III	CABT31A	3A	Programming with C & C++	3		3		25	75	100
III	CABP31A	3A	Programming with C & C++ Lab		2		1	10	40	50
III	CSCT11B	3B	Problem Solving in 'C'	3		3		25	75	100
III	CSCP11B	3B	Problem Solving in 'C' LAB		2		1	10	40	50
Ι	CSBT11A	IA	Information Technology	5		4		30	70	100
Ι	CABT22A	IB	Computer Applications	3		3		30	70	100
Ι	CABP22A	IB	Computer Applications		2		1	10	40	50

**Note-1:** For Semester–V, for the domain subject Computer Science any one of the three pairs of SECs shall be chosen as courses 16,17,18,19,20 and 21, i.e., 16A & 17A or 16B &; 17B or 16C &; 17C and so on. The pair shall not be broken (ABCD allotment is random, not on any priority basis).

**Note-2:** One of the main objectives of Skill Enhancement Courses (SEC) is to inculcate field related skills of the domain subject in students. The syllabus of SEC will be partially skill oriented. Hence, teachers shall also impart practical training to students on the skills embedded in syllabus citing related real field situations.

#### A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

Vuyyuru-521165.NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* 

#### Title of the Paper: WEB INTERFACE DESIGNING TECHNOLOGIES Semester: V/VI

Course Code	SECCSCT01	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022 -23	Year of Revision:	Percentage of Revision: 0%

**Course Objective**: To create web elements like buttons, banners & Bars and of course complete UI designs. Forms and validations for your website. Setting up page layout, color schemes, contract, and typography in the designs. Writing valid and concise code for web pages.

0001200 000000	realize of the state of the sta						
CO <sub>1</sub>	Understand web application and static web page using Html. (PO5)						
CO2	Gain knowledge about various designing of style sheets. (PO5)						
CO3	Demonstrate skills regarding creation of an interface to dynamic website.(PO7)						
CO4	Gain knowledge about various advantages of XML and validating schema(PO5)						
CO5	Learn how to install word press and gain the knowledge of installing various plugins to use in their websites. (PO5,PO7)						

	Syllabus	
	Course Details	
Unit	Learning Units	Lecture Hours
Ι	<ul> <li>Web Designing, HTML</li> <li>Web Designing: Introduction To Web Designing, Difference Between Web Applications And Desktop Applications.</li> <li>HTML: Introduction To HTML, Introduction To HTML, Headings, Paragraphs Styles &amp;Colors, HTML Formatting, Quotations, Comments, Hyperlinks, Lists, Using colors and images, Tables, Multimedia Objects - Video, Audio, Plugins, You Tube, Frames, Forms</li> </ul>	12
Π	CSS, HTML API'S CSS: Introduction, Using Styles, Simple Examples, Defining Your Own Styles, Properties and Values in Styles, Style Sheets, Formatting blocks of information, Layers, CSS Combinators, Pseudo Class, Pseudo Elements, Opacity, ToolTips, Image Gallery, CSS Forms, CSS Counters, CSS Responsive.HTML API'S: Geolocation, Drag/drop, local storage, HTML SSE	12
III	<b>Client side Validation:</b> Introduction to JavaScript: What Is DHTML?, JavaScript Basics, Variables, StringManipulations, MathematicalFunctions, Statements, Operators, Arr ays, Functions.Objects in JavaScript –Data and Objects In JavaScript, Regular Expressions, Exception Handling. DHTML with JavaScript :Data Validation, Opening a New Window, Messages and Confirmations, The Status Bar, Different Frames, Rollover Buttons, Moving Images	14
IV	<b>XML:</b> Introduction to xml, How to write a xml document, Elements and attributes, Comments in xml, Namespace in xml, Xml css, Advantages of xml, Uses of xml, xml schema, data types, simple types, complex types ,Validating DTD,XSD.	12
V	<b>Word press</b> Introduction to word press, servers like wamp, bitnami e.tc, installing and configuring word press, understanding admin panel, working with posts and pages, using editor, text formatting with shortcuts, working with media-Adding, editing, deleting media elements, working with widgets, menus.	10
Text	<ol> <li>Book/ references / e-books/websites</li> <li>Chris Bates, Web Programming Building Internet Applications, Second Edition, Wil</li> <li>Web technologies by A.A.Puntambekar</li> <li>Web Technologies by N.P.Gopalan,Eastern Economy Edition,2<sup>nd</sup> edition</li> <li>Paul S.WangSanda S. Katila, an Introduction to Web Design plus Programming, The</li> <li>Head First HTML and CSS, Elisabeth Robson, Eric Freeman, O'Reilly Media Inc.</li> </ol>	ley omson

- 6. An Introduction to HTML and JavaScript: for Scientists and Engineers, David R. Brooks.
- 7. Schaum's Easy Outline HTML, David Mercer, Mcgraw Hill Professional.
- 8. Word press for Beginners, Dr.Andy Williams.
- 9. Professional word press, Brad Williams, David damstra, Hanstern.
- 10. Web resources:
  - a. http://www.codecademy.com/tracks/web
  - b. <u>http://www.w3schools.com</u>
  - c. https://www.w3schools.in/wordpress-tutorial/ d.http://www.homeandlearn.co.uk

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2022-23)

-	(With I		I cui 2022	
	COMPUTER SCIENCE	SECCSCT01	2022-23	<b>B.SC(MPCS,MCCS)</b>
	SEMESTER – V/VI	PAPER – VI		Max. Marks 70
	Model Paper: WEB	INTERFACE DESIG	NING TE	CHNOLOGIES
Ν	IO of Hours: 3	No Of Credits:	: 3	Pass Marks 28
Answer	any Four questions. (At leas	SECTION – A Short Answer Ques st 1 question should b	stions e given fro	m each Unit) ( 4v5-20Morka
What i. What Explain. What i. What Explai	s HTML? Explain features ar is layer? How are they describ n hyperlinks in HTML.(CO2,) s java script? Explain the feat are the elements and attribute n text formatting in word Pre	nd structure of HTML p bed with HTML code? (L5) sures ,advantages and d s used in XML(CO4,L ss.(CO5,L5)	orogram wi (CO1,L1) isadvantag 1)	th example(CO1,L1)
nswer	all questions	SECTION-B		
				(5 x 10 = 50 Ma)
(a) Wha	it is list? Explain various type	es of lists in HTML.(CO <b>OR</b>	J1,L1)	
(b)Expl	ain Frames and forms in HTN	AL(CO1,L2)		
0(a)Def	ine CSS, Explain various styl	les sheets in HTML(CC	D2,L1)	
0(b). Ex	xplain HTML APIs.(CO1,L2)			
1(a).Wl	nat is DHTML? Explain abou	t various string and ma	thematical	functions(CO3,L2)
1(b) Ex	plain Exception handling and	rollover buttons in jav	va script(CC	)3,L2)
2(a).Wl	nat are the advantages of using	g XML and CSS? How	to validate	e XML schema.(CO4,L1)
2(b) Ex	plain about DTD in XML(CC	04,L2)		
	nat is admin panel, what are th	he steps involved in wo	orking with	post and pages (CO5,L1)
3(a) Wl	_	OR		

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2022-23)

COMPUTER SCIENCE	SECCSCT01	2022-23	B.SC(MPCS,MCCS)				
SEMESTER – V/VI	PAPER – V	Ί	Max. Marks 50				
Lab List: WEB INTERFACE DESIGNING TECHNOLOGIES LAB							

# No. of Hours per week: 3External: 40Internal: 10Credits: 2I. Course Outcomes: Students at the successful completion of the course will be able to:

CO1: Create a basic website with the help of HTML and CSS.(PO5)

CO2: Acquire the skill of installing word press and various plugins of Word press.(PO5)

CO3: Create a static website with the help of Word press..(PO5,PO7)

CO4: Create an interface for a dynamic website.(PO5,PO7)

CO5: Apply various themes for their websites using Word press.(PO7)

**II. Practical (Laboratory) Syllabus**: (30 periods)

HTML and CSS:

1. Create an HTML document with the following formatting options:

(a)Bold, (b) Italics, (c) Underline, (d) Headings (Using H1 to H6 heading styles), (e) Font (Type, Size and Color), (f) Background (Colored background/Image in background), (g) Paragraph, (h) Line Break, (i) Horizontal Rule, (j) Pre tag

2. Create an HTML document which consists of:

(a) Ordered List (b) Unordered List (c) Nested List (d) Image

3. Create a form using HTML which has the following types of controls:

(a) Text Box (b) Option/radio buttons (c) Check boxes (d) Reset and Submit buttons

4.Embed a calendar object in your web page.

5. Create an applet that accepts two numbers and perform all the arithmetic operations on them.

6. Create nested table to store your curriculum with image.

7. Create a form that accepts the information from the subscriber of a mailing system.

8. Create a help file as follows:



9. Write a html program including style sheets.

10. Write a html program to layers of information in web page.

11. Develop a Java script to determine whether the given number is a "PERFECT NUMBER "or not.

12. Develop a Java script to generate "ARMSTRONG NUMBERS" between the ranges 1 to 100.

13. Write a java script that reads an integer and displays whether it is a prime number or not.

14. Write a java script which accepts the text in lower case and displays the text in upper case

15. Write a java script program for user name and password validation using on click event.

# Word press:

- 16. Installation and configuration of word press.
- 17. Create five pages on COVID 19 and link them to the home page.
- 18. Add an external video link with size 640 X 360.
- 19. Create a user and assign a role to him.
- 20. Create a login page to word press using custom links

## **III. Lab References:**

- 1. Web technologies by A.A.Puntambekar
- 2. Web Technologies by N.P.Gopalan, Eastern Economy Edition, 2<sup>nd</sup> edition
- 3. Word press for Beginners, Dr. Andy Williams.
- 4. Professional word press, Brad Williams, David damstra, Hanstern.

#### **Reference Materials on the Web/web-links:**

- 1.<u>https://onlinecourses.nptel.ac.in/noc17\_cs22/course</u>
- 2.http://www.codecademy.com/tracks/web
- 3.<u>http://www.w3schools.com</u>
- 4.https://www.w3schools.in/wordpress-tutorial/

## A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE Vuyyuru-521165.NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified*

#### Title of the Paper: WEB APPLICATIONS DEVELOPMENT USING PHP AND MYSQL

#### Semester: V/VI

Course Code	SECCSCT02	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2015-16	Year of Offering: 2022 -23	Year of Revision:	Percentage of Revision: 30%

Course Objective: Upon successful completion of the course, participants should be able to: List the

#### major elements of the PHP & MySQL work and explain why PHP is good for web development.

Learn how to take a static website and turn it into a dynamic website run from a database using PHP and MySQL.

CO1	Learn basic structure and key concepts in PHP, Control statements and functions concept and related programs (PO5)
CO2	Know What is an Array concept related programs, What is an Object, various objects, Formatting strings, Date and time and related programs (PO5)
CO3	Learn importance of Forms, Combining HTML with PHP code. Importance of Cookies and Sessions related programs of forms cookies and sessions. (PO5)
CO4	Know importance of File concept in PHP how to Create, Open, Read and write data in file related programs, Knowing about Image creation, drawing, and modification image (PO7)
CO5	Know about Database concept of MySQL, Connection, Creation of Database, Table adding Record into it related programs (PO7)

#### **PHP Syllabus**

#### **Course Details**

Unit	Learning Units	Lecture Hours
Ι	The Building blocks of PHP : Variables, Data Types, Operators and	12
	Expressions, Constants. Flow Control Functions in PHP: Switching Flow,	
	Loops, Code Blocks and Browser Output. Working with Functions: What is	
	function?, Calling functions, Functions, Returning the values from User-Defined	
	Functions, Variable Scope.	
II	Working with Arrays: What are Arrays?, Creating Arrays, Working with	12
	Objects Creating Objects, Object Inheritance, Working with Strings, Dates	
	and Time-Formatting strings with PHP, Investigating Strings with PHP,	
	Manipulating Strings with PHP, Using Date and Time Functions in PHP.	
TIT	Working with Forms Creating Forms Accessing Form Input with User	1.4
111	defined Arrays Combining HTML and PHP code on a single Page Working	14
	with Cookies and User Sessions-Introducing Cookies Setting a Cookie with	
	PHP Session Function Overview Starting a Session Working with session	
	variables	
IV	Working with Files and Directories: Creating and Deleting Files. Opening a	12
	File for Writing, Reading or Appending, Reading from File, Writing or	
	Appending to a File. Working with Images -Understanding the Image-Creation	
	Process, Drawing a New Image ,Modifying Existing Images ,Image Creation	
	from User Input.	
V	Interacting with MySQL using PHP -MySQL versus MySQLi Functions,	10
	Connecting to MySQL with PHP ,Working with MySQL Data, Creating an	
	Online Address Book -Planning and Creating Database Tables, Creating Menu,	
	Creating Record, Addition Mechanism, Viewing Records, Creating the Record	
	Deletion Mechanism, Adding Sub-entities to a Record.	

#### **Textbooks and References**

- 1. JulieC.Meloni, SAMS Teach yourself PHP MySQL and Apache, Pearson education
- 2. Steven Holzner, PHP: The Complete Reference, McGraw-Hill
- 3. RobinNixon,LearningPHP,MySQL,JavaScript,CSS&HTML5,ThirdEditionO'reilly,2014
- 4. XueBaiMichaelEkedahl, The web warrior guide to Web Programming, Thomson (2006).
- 5. Web resources:
  - e. <u>http://www.codecademy.com/tracks/php</u>
  - f. http://www.w3schools.com/PHP
  - g. <u>http://www.tutorialpoint.com</u>

	AG & SG SIDDHARTHA An Autonomous college	<b>COLLEGE OF ARTS</b> within the jurisdiction of	<b>S AND SCI</b> of Krishna U	<b>ENCES - VUYYURU.</b> Jniversity A.P, India.		
	(With Effect from Academic Year 2015-16)					
	COMPUTER SCIENCE	SECCSCT02	2022-23	B.SC(MPCS,MCCS)		
	SEMESTER – V/VI	PAPER – VI	I	Max. Marks 70		
	Model Paper: Web Applications Development using PHP & MYSQL					
	NO of Hours: 3	No Of Credits	: 3	Pass Marks 28		
		SECTION – A	<b>L</b>			
Short A	Answer Questions			(4 x 5=20 Marks)		
Answei	r any Four questions. (At lea	st 1 question should b	e given fro	m each Unit)		
1)	Define Structure of PHP.(CO)	L,LI)	amont with	aumtour (CO1 L 4)		
2) 3)	Differentiate Conditional state	about it (CO2 I 1)	ement with	syntax.(CO1,L4)		
3) 4)	Explain about Cookies concer	t (CO3 I 2)				
5)	Explain about Image creation.	(CO4.L2)				
6)	Write short note on Mysqli.(C	05,L1)				
,		SECTION B				
Answei	r all questions. (Two question	ns should be given fro	m each uni	( 5 x 10=50 Marks) it with internal choice)		
9(a) Ex	plain about Control Statement	s.(CO1,L2)				
9(b) Dis	scuss about Function define, C	<b>OR</b> Call and return value wi	th example.	(CO1,L6)		
10(a) L	ist various types of Formatting	strings explain them.(	CO2,L2)			
10(b) D	efine Array function with example	mple.( CO2,L1)				
11(a) W	Vrite names of Form objects ex	plain them with examp <b>OR</b>	ole.(CO3,L2	2)		
11(b) C	11(b) Compare and Contrast Session and Cookies.(CO3,L4)					
12(a) E	12(a) Explain File concept about file creation, Open file, Write file and Delete file with example(CO4,L2) OR					
12(b) C	onstruct steps for Interfacing of	complete image concep	ot explain th	em with one example.(CO4,L3)		
13(a) D	iscuss about DDL commands	and DML commands i <b>OR</b>	n Mysqli wi	ith syntaxes (CO5,L6)		
13(b) W	Vrite code to Create table of Er	nployee by adding any	four colum	ns with example.(CO5,L6)		

	AG & SG SIDDHARTHA	COLLEGE OF AF	RTS AND SC	IENCES - VUYYURU.
An Autonomous college within the jurisdiction of Krishna University A.P, India.				
	COMPUTER SCIENCE	SECCSCT02	2022-23	B.SC(MPCS,MCCS)
SEME	ESTER – V/VI	PAPER – V	Π	Max. Marks 50
	Lab List: Web	<b>Applications Deve</b>	lopment usin	g PHP & MYSQL lab
	No. of Hours per week: 3	External: 4	0 Intern	al: 10 Credits: 2
Cours	se Outcomes: Students at the	e successful comple	etion of the co	ourse will be able to:
01: Le	earn and implement basic prog	grams in PHP, Cont	rol statements	and functions concept (PO5)
O2: In	plement Basic programs in C	bject, various objec	ts, Formatting	strings, Date and time (PO5)
03: Le	arn and implement important	programs of Forms	, Combining I	HTML with PHP code. Importan
f Cook	ies and Sessions(PO5)			
O4: In	plement programs on Files	concept in PHP and	l on Image cr	eation, drawing, and modificat
nage (F	205 & PO7)			
O5: In	plement Database programs	on MySQLi, Conne	ection, Creation	n of Database, Table adding
ecord i	nto it related programs (PO7)	)		
I: Prac	tical (Laboratory) Syllabus:	: (30 Periods): At l	east 8 Practica	l's.
1. W	rite a PHP program to Displa	y "Hello"		
2. W	rite a PHP Program to displa	y today's date.		
3. W	rite a PHP program to display	y Fibonacci series.		
4. W	rite a PHP Program to read th	ne employee details.		
5. W	rite a PHP program to prepar	e the student marks	list.	
6. W	rite a PHP program to genera	te the multiplication	n of two matrie	ces.
7. C	reate student registration forn	n using text box, che	eck box, radio	button, select, submit button. A
di	splay user inserted value in n	ew PHP page.		
8. C	reate Website Registration Fo	orm using text box,	check box, r	adio button, select, submit butt
Α	nd display user inserted value	e in the new PHP pa	ge.	
9. W	rite a PHP script to demonstr	ate passing variable	s with cookies	
10. W	rite a program to keep track of	of how many times a	a visitor has lo	aded the page.
11. W	rite a PHP application to add	, Modify, delete and	l fetch the row	s in a Table.
12. D	evelop a PHP application to in	mplement the follow	ving Operation	18
	a. Registration of Users.b	.Insert the details of	f the Users.c.N	Iodify the Details.
	d.Transaction Maintenance	е.		-
No of t	imes Logged in (ii). Time Spe	nt on each login. Ii.	Restrict the us	ser for three trials only.
i. Delet	te the user if he spent more th	an 100 Hrs of transa	ction.	
13. W	rite a PHP script to connect t	o the MySQL server	r from your we	ebsite.
14. W	rite a program to read custor	mer information like	e cust-no, cus	t-name, item purchased, and mo
no	o, from customer table and dis	splay all this inform	ation in table f	format on the output screen.
15. W	rite a program to edit the na	me of a customer to	o "Kiran" wit	h cust-no $=1$ , and to delete rece
w	ith cust-no=3.			
16. W	rite a program to read empl	loyee information 1	ike emp-no, e	emp-name, designation and sal
fr	om the EMP table and display	y all this information	using table for	ormat in your website.
17. C	reate a dynamic web site usin	g PHP and MySQL		-
т	ovthooks and Deferences: 1	JulioC Moloni S A	MS Teach you	wealf DUD MySOL and
1	extbooks and Kelerences: 1	• JulieC. Melolii, SA	NIS Teach you	uisell FHF MySQL and
A 1	Stavan Holzner, DHD: The C	107). Somplete Deference	MaGrow Hill	
1	DehinNiyan Learnin 2010	Augol Java Somiet C		l FhindE dition Olasillar
2	. ROUMINIXON, LearningPHP, N	and	SSATIMLS,	r macationO relliy.
V 1-	http://www.w2aahaala.acm/	.couecadeniy.com/ti	acks/pnp	
D	.http://www.woschools.com/f	<u> </u>		

#### A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE Vuyyuru-521165.NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

# Title of the Paper: INTERNET OF THINGS

## Semester: V/VI

Course Code	SECCSCT03	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022 -23	Year of Revision:	Percentage of Revision: 0%

Course Objective: This course gives a foundation in the Internet of Things, including the components,

tools, and analysis by teaching the concepts behind the IoT and a look at real-world solutions.

CO <sub>1</sub>	Understand architecture and applications of IoT systems.(PO5)
CO2	Gain knowledge of various development boards used for IoT.(PO5)
CO3	Understand various Wireless Technologies used in IoT.(PO5)
CO4	Learn how to use various sensors and actuators for design of IoT.(PO7)
CO5	Learn how to connect various things to Internet and develop simple IOT Devices. (PO7)

#### Syllabus

#### **Course Details**

Uni	Learning Units	Lecture
t		Hours
Ι	Fundamentals of IoT: Introduction, Definitions & Characteristics of IoT, IoT Architectures, Physical & Logical Design of IoT, Enabling Technologies in IoT, History of IoT, About Things in IoT, The Identifiers in IoT, About the Internet in IoT, IoT frameworks, IoT andM2M. <b>Applications of IoT:</b> Home Automation, Smart Cities, Energy, Retail Management, Logistics, Agriculture, Health and Lifestyle, Industrial IoT, Legal challenges, IoT design Ethics, IoT in Environmental Protection.	12
II	Sensors Networks: Definition, Types of Sensors, Types of Actuators, Examples and Working, IoT Development Boards: Arduino IDE and Board Types, Raspberry Pi Development Kit, RFID Principles and components, Wireless Sensor Networks: History and Context, The node, Connecting nodes, Networking Nodes, WSN and IoT.	12
III	Wireless Technologies for IoT: WPAN Technologies for IoT: IEEE802.15.4, Zigbee, HART, NFC, ZWave, BLE, Bacnet And Modbus. IP Based Protocols for IoTIPv6, 6LowPAN, LoRA, RPL, REST, AMPQ, CoAP, MQTT. Edge connectivity and protocols.	14
IV	Arduino Simulation Environment: Arduino Uno Architecture, Setting up the IDE, Writing Arduino Software, Arduino Libraries, Basics of Embedded C programming for Arduino, Interfacing LED, push button and buzzer with Arduino, Interfacing Arduino with LCD. Sensor & Actuators with Arduino: Overview of Sensors working, Analog and Digital Sensors, Interfacing of Temperature, Humidity, Motion, Light and Gas Sensors with Arduino, Interfacing of Actuators with Arduino, Interfacing of Relay Switch and Servo Motor with Arduino.	12
V	Developing IOT's: Implementation of IoT with Arduino, Connecting and using various IoT Cloud Based Platforms such as Blynk, Thing speak, AWS IoT, Google Cloud IoT Core etc. Cloud Computing, Fog Computing, Privacy and Security Issues in IoT.	10

**Text Book/References** 

- Internet of hings A Hands-on Approach, Arshdeep Bahga and Vijay Madisetti, UniversitiesPress, 2015, ISBN: 9788173719547
- Vijay Madisetti and ArshdeepBahga, "Internet of Things (A Hands-onApproach)", 1stEdition, VPT, 2014

**Reference Materials on the Web/web-links:** 

1. https://github.com/connectIOT/iottoolkit2.https://github.com/connectIOT/iottoolkithttps://www.ard uino.cc/

3.<u>https://onlinecourses.nptel.ac.in/noc17\_cs22/course</u> 4.<u>https://blynk.io</u>(Mobileapp)

	AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.				
	An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2022-23)				
	COMPUTER SCIENCE	SECCSCT03	2022-23	B.SC(MPCS,MCCS)	
	SEMESTER – V/VI M	PAPER – VI Iodel Paper: Internet (	Of Things	Max. Marks 70	
	NO of Hourse 3	No Of Crodits	. 2	Doss Morks 28	
	NO of Hours. 5	No OI Cleuits		I ass wiatks 20	
Short /	Answer Questions	SECTION – A		(4x5=20Marks)	
Answe	r any Four questions. (At leas	st 1 question should b	e given fro	m each Unit)	
1)	Define IOT and write characte	ristics of IOT.(CO1,L1	.)		
2)	Differentiate IOT and M2M.(C	CO1,L4)			
3)	Define Actuator and explain al	bout it.(CO2,L1)			
4)	Explain about wireless technol	ogy Zigbee.(CO3,L2)			
5)	Explain about light and gas ser	nsors.(CO4,L2)			
6)	Write short note on Fog Comp	uting.(CO5,L1)			
9 (a) E 9(b) Di 10(a) L 10(b) L	xplain IOT architecture with ne scuss about Applications of IO ist various types of sensors in I ist RFID components and expl	at diagram.(CO1,L2) OR T.(CO1,L6) OT and explain any 3 OR ain them(CO2,L2)	of them.(C	D2,L2)	
11(a) $\mathbb{V}$	Vrite names of wireless technol	ogies used in IOT and OR	describe an	y 2 of them.(CO3,L2)	
11(b) C	compare and Contrast MQ11 a	nd COAP protocols.(C	U3,L4)		
12(a) E	Explain Arduino Uno Architectu	ure.(CO4,L2)			
12(b) C	Construct steps for Interfacing A	Arduino with LCD and	explain the	m.(CO4,L3)	
13(a) D	Discuss about Privacy and secur	ity issues in IOT.(CO5	5,L6)		
13(b) V	Write code to Design any App o	f your choice using Th	ingspeak.(O	CO5,L6)	
		***	:		

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2022-23)

COMPUTER SCIENCE	SECCSCT03	2022-23	B.SC(MPCS,MCCS)	
SEMESTER – V/VI	PAPER – V	I	Max. Marks 50	
Lab List: INTERNET OF THINGS LAB				
No. of Hours per week: 2	External: 40	Internal:	10 Credits: 2	

## I. Course Outcomes: Students at the successful completion of the course will be able to:

CO1:Acquiretheskillsto design a small IoT device.(PO5)

CO2:Connectvarioussensors, actuators, etc to Arduino board.(PO5)

CO3:Connectthethingsto Internet.(PO5)

CO4:Designasmallmobile app to control the sensors.(PO5,PO7)

CO5:Deployasimple IoT device.(PO5,PO7)

#### II: Practical (Laboratory) Syllabus: (30 Periods)

- 1. Understanding Arduino UNO Board and Components
- 2. Installing and work with Arduino IDE
- 3. Blinking LED sketch with Arduino
- 4. Simulationof4-WayTrafficLightwithArduino
- 5. Using Pulse Width Modulation
- 6. LEDF ade Sketch and Button Sketch
- 7. Analog Input Sketch(Bar Graph with LEDs and Potentiometre)
- 8. Digital Read Serial Sketch (Working with DHT/I R/Gas or Any other Sensor)
- 9. Working with Adafruit Librariesin Arduino
- 10. Spinninga DC Motorand Motor Speed Control Sketch
- 11. Working with Shields
- 12. Design APP using Blink Appor Thing speak API and connectit LED bulb.
- 13. Design APP Using Blynk Appand Connect to Temperature, magnetic Sensors.

#### II. Lab References:

- 1. Internet of Things A Hands-on Approach, ArshdeepBahga and Vijay Madisetti,UniversitiesPress, 2015, ISBN: 9788173719547
- 2. Vijay Madisetti and Arshdeep Bahga, "Internet of Things (A Hands-on Approach)", 1stEdition, VPT, 2014
- 3. DanielMinoli,—"BuildingtheInternetofThingswithIPv6andMIPv6:TheEvolvingWorldof M2MCommunications",ISBN:978-1-118-47347-4,WillyPublications

#### **Reference Materials on the Web/web-links:**

- 1. <u>https://github.com/connectIOT/iottoolkithttps://www.arduino.cc/</u>
- 2. https://onlinecourses.nptel.ac.in/noc17 cs22/course
- 3. <u>https://blynk.io</u>(Mobileapp)

# A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

Vuyyuru-521165.NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

#### Title of the Paper: APPLICATION DEVELOPMENT USING PYTHON

#### Semester: V/VI

Course Code	SECCSCT04	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022 -23	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** To further your software development career, you need to understand why and how Python executes your code so that you can create clean code that compiles in time. This Course unleashes the power of Python's functionalities to create compelling applications!

	•			
CO <sub>1</sub>	Understand basics of python and write applications using strings, tuples, lists, sets.(PO5,PO7)			
CO2	CO2 Understand and use exceptions and packages for different applications.(PO5,PO7)			
CO3	Create, run and manipulate Python Programs using threads and Regular Expressions.(PO5,PO7)			
CO4	Apply concepts of Python programming in various fields related to IOT, Web Services and Databases in Python.(PO5,PO7)			
CO5	write applications in python to perform various database operations.(PO5,PO7)			

Syllabus				
	Course Details			
Unit	Learning Units	Lecture Hours		
I	<b>Python basics, Objects-</b> Python Objects, Standard Types, Other Built-in Types, Internal Types, Standard Type Operators, Standard Type Built-in Functions, <b>Sequences-</b> Strings, Lists, and Tuples, Mapping and Set Types. <b>Numbers-</b> Introduction to Numbers, Integers, Floating Point Real Numbers, Complex Numbers, Operators, Related Modules.	12		
Π	<ul> <li>Files: File Objects, File Built-in Function [ open() ], File Built-in Methods, File Built-in Attributes, Command-line Arguments, File System, File Execution, Persistent Storage Modules, Related Modules.</li> <li>Exceptions: Exceptions in Python, Detecting and Handling Exceptions, Context Management, Exceptions as Strings, Raising Exceptions, Assertions, Standard Exceptions , Creating Exceptions.</li> <li>Modules: Modules and Files, Name spaces ,Importing Modules, Importing Module Attributes ,Module Built-in Functions ,Packages.</li> </ul>	12		
III	<b>Regular Expressions:</b> Introduction, Special Symbols and Characters, Resand Python Multithreaded Programming: Introduction, Threads and Processes, Python, Threads, and the Global Interpreter Lock, Thread Module, Threading Module.	14		
IV	<b>GUI Programming:</b> Introduction, Tkinter and Python Programming, Brief Tour of Other GUIs, Related Modules and Other GUIs. <b>Web Programming:</b> Introduction, Web Surfing with Python, Creating Simple Web Clients, Advanced Web Clients, CGI Helping Servers Process Client Data, Building CGI Application, Web (HTTP) Servers. <b>DatabaseProgramming:</b> Introduction PythonDatabase ApplicationProgrammer's In	12		
v	terface (DBAPI), Object Relational Managers(ORMs).	10		

Text Book/References:1ThinkPython,AllenDowney,GreenTeaPress.

2. IntroductiontoPython, KennethA. Lambert, Cengage.

3.PythonProgramming: A Modern Approach, Vamsi Kurama , Pearson.

4.LearningPython,Mark Lutz, O' Really.

5. Core Python Programming, WesleyJ. Chun, Second Edition, Pearson

# **Reference Materials on the Web/web-links:**

- <u>https://www.tutorialspoint.com/python/index.htm</u>
- <u>https://www.w3schools.com/python/</u>

	(With Effect from Academic Year 2022-23)				
	COMPUTER SCIENCE	SECCSCT04	2022-23	B.SC(MPCS,MCCS)	
	SEMESTER – V/VI	PAPER – VI	I	Max. Marks 70	
	Model Paper:	Application Develop	pment Usin	ng Python De se Massier 29	
	NU of Hours: 3	No UI Credits	s: 3	Pass Marks 28	
hort	Answer Ouestions	SECTION $-2$	4	(4 x 5=20Marks	
nsw	ver any Four questions. (At least	t 1 question should h	oe given fro	om each Unit)	
1)	Give classification of various b	uilt in data types in p	ython .(CO1	l,L2)	
2)	Compare tuples and sets in pyth	ion.(CO1,L4)			
3)	What is need of assertions in py	thon? Give simple ex	ample.(CO	2,L1)	
4)	Write 5 special symbols used in	n python and their pu	rpose.(CO3	,L1)	
5)	Write short note on web surfing	with python.(CO4,L	.1)		
6)	Why do we use Global Interpre	ter lock in Python?(C	CO5,L1)		
		SECTION I	3	(5 x 10=50 Marks	
(b) C 0(a) 0(b)	Create a list in python and apply in Create a program in python to dea Develop a program in python for	monstrate exception l OR user defined module	(COI,L6) nandling.(Co	O2,L6) d importing.(CO2,L6)	
1(a)	Develop multithreaded program i	n python.(CO3,L6)			
1(b)	Explain about threading module	with an example prog	gram.(CO3,I	L2)	
2(a)	Discuss with steps building CGI	application in Pythor OR	n.(CO4,L6)		
2(b)	Explain with example creating sit	mple web client in py	thon.(CO4,	L6)	
3(a)	Explain about Python database A	pplication programm <b>OR</b>	ers interface	e.(CO5,L2)	
	Create database application in py	thon to insert and del	ete student	records.(CO5,L6).	
3(b)					

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2022-23)

COMPUTER SCIENCE	SECCSCT04	2022-23	<b>B.SC(MPCS,MCCS)</b>	
SEMESTER – V/VI	PAPER – V	<b>II</b>	Max. Marks 50	

Lab List: APPLICATION DEVELOPMENT USING PYTHON LABNo. of Hours per week: 2External: 40Internal: 10Credits: 2

# I. Course Outcomes: Students at the successful completion of the course will be able to:

CO1:Acquiretheskillsto write simple programs in python.(PO5,PO7)

CO2:Implementprogramsrelatedtovariousdatastructureslikelists, setsetc. .(PO5,PO7)

CO3:Implementprogramsrelatedtofiles.(PO5,PO7)

CO4:Implement Exception handling programs in python.(PO5,PO7)

CO5:Implement programs to insert, delete, display data in databases.(PO5,PO7)

# II: Practical (Laboratory) Syllabus: (30 Periods)

- 1. Write a menu driven program to convert the given temperature from Fahrenheit to Celsius and viceversa depending up on user's choice.
- 2. Write a python program to calculate total marks, percentage and grade of a student .Marks obtained in each of the three subjects are to be input by the user. Assign grades according to the following criteria:

**GradeA**: Percentage>=80 **Grade B**: Percentage>=70 and <80 **Grade C**: Percentage>=60 and <70 **Grade D**: Percentage>=40 and <60 **GradeE**: Percentage<40

- 3. Write a python program to display the first nterm so f Fibonacci series.
- 4. Write a python program to calculate the sum and product of two compatible matrices.
- 5. Write a function that takes a character and returns True if it is a vowel and False otherwise.
- 6. Writeamenu-drivenprogramtocreatemathematical3Dobjects

1.Curve 2.sphere 3.cone 4.arrow 5.ring6.Cylinder.

- 7. Write a python program to readn integers and display them as a histogram.
- 8. Write a python program to display sine, cosine, polynomial and exponential curves.
- 9. Write a python program to plot a graph of people with pulse rate p vs. height h. The values of P and H are to be entered by the user.
- 10. Write a python program to calculate the mass m in a chemical reaction. The mass m(in gms) disintegrates according to the formula m=60/ (t+2), where t is the time in hours .Sketch a graph fort vs. m, where t>=0.
- 11. A population of 1000 bacteria is introduced into a nutrient medium. The population pgrows as follows:P(t) =(15000(1+t))/(15+e)
- 12. Where the time t is measured in hours. WAP to determine the size of the population at given time t and plot a graph for P vs t for the specified time interval.
- Input initial velocity and acceleration, and plot the following graphs depicting equations of motion: 1. Velocity wrt time (v=u+at)2. Distance wrt time(s=u\*t+0.5\*a\*t\*t)

Distance wrt velocity(s=(v\*v-u\*u)/2\*a)

14. Write a program that takes two lists and returns True if they have at least one common member.

- 15. Write a Python program to print a specified list after removing the 0th, 2nd, 4th and5th elements.
- 16. Write a program to implement exception handling.
- 17. Trytoconfigurethewidgetwithvariousoptionslike:bg="green",family="times",size=20.
- 18. Write a Python program to read last 5linesofafile.
- 19. Design a simple database application that stores the records and retrieve the same
- 20. Design a database application search the specified record from the database.
- 21. Design a database application to that allows the user to add, delete and modify the records.

#### **III. Lab References:**

- 1. CorePython Programming, WesleyJ. Chun, Second Edition, Pearson.
- 2. ThinkPython, AllenDowney, GreenTeaPress.

#### **Reference Materials on the Web/web-links:**

https://www.tutorialspoint.com/python/index.htm https://www.w3schools.com/python/

# A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

Vuyyuru-521165.NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified

## **Title of the Paper: DATA SCIENCE**

#### Semester: V/VI

Course Code	SECCSCT05	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022 -23	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** Develop in depth understanding of the key technologies in data science and business analytics: data mining, machine learning, visualization techniques, predictive modeling, and statistics. Practice problem analysis and decision-making.

CO <sub>1</sub>	Analyze the data and their type to build programs using lists and tuples in Python.(PO5)
CO2	Understand the concept of getting data, cleaning and manipulating data(PO5)
CO3	Be capable of understanding the concepts of K-Nearest Neighbors, Naïve Baye's.(PO5,PO7)
CO4	Understand the concepts of Simple, Multiple & Logistic regressions.(PO5,PO7)
CO5	Acquire knowledge on Decision Trees and Neural Networks.(PO5,PO7)

#### **Syllabus**

#### **Course Details**

Unit	Learning Units	Lecture Hours
Ι	<b>Introduction</b> : The Ascendance of Data, What is Data Science?, Finding key Connectors- Data Scientists You May Know, Salaries and Experience - Paid Accounts ,Topics of Interest, Onward. <b>Python</b> : Getting Python, The Zen of Python, Whitespace Formatting, Modules , Arithmetic, Functions, Strings, Exceptions, Lists, Tuples, Dictionaries, Sets, Control Flow, Truthiness, Sorting, List Comprehensions. <b>Visualizing Data</b> :Matplotlib, Bar charts, Line charts ,Scatterplots	12
II	<b>Getting Data:</b> stdin and stdout, Reading Files – The Basics of Text Files, Delimited Files, Scraping the Web - HTML and the parsing Thereof, Example: O'Reilly Books about Data, Using APIs – JSON (and XML), Using an Unauthenticated API, Finding APIs. <b>Working with Data</b> :Exploring Your Data, Exploring One-Dimensional Data, Two Dimensions Many Dimensions ,Cleaning and Munging, Manipulating Data ,Rescaling, Dimensionality Reduction.	12
III	Machine Learning: Modeling, What Is Machine Learning? Over fitting and under fitting, Correctness, The Bias-Variance Trade-off, Feature Extraction and Selection. K-Nearest Neighbors: The Model, Example: Favorite Languages, The Curse of Dimensionality. Naive Bayes : A Really Dumb Spam Filter, A More Sophisticated Spam Filter, Implementation, Testing Our Model.	14
IV	<b>Simple Linear Regression:</b> The Model, Using Gradient Descent, Maximum Likelihood Estimation. <b>Multiple Regression:</b> The Model, Further Assumptions of the Least Squares Model, Fitting the Model, Interpreting the Model, Goodness of F.LogisticRegression: The Problem, the Logistic Function, Applying the Model, Goodness of Fit Support Vector Machines.	12
V	<b>Decision Trees</b> : What Is a Decision Tree? Entropy, the Entropy of a Partition, Creating a Decision Tree, Putting It All Together, Random Forests. <b>Neural Networks:</b> Perceptron, Feed-Forward Neul Networks and Back propagation, Example: Defeating a CAPTCHA.	10

References/ Text Book/ e-books/websites

Text Books:

- 1. Data Science from Scratch by Joel Grus O'ReillyMedia
- **2.** Wes McKinney, "Python for Data Analysis: Data Wrangling with Pandas, NumPy, and IPython", O'Reilly, 2nd Edition, 2018.

#### Reference Books:

**1.** Jake VanderPlas, "Python Data Science Handbook: Essential Tools for Working with Data", O'Reilly,2017.

## Webresources: https://www.edx.org/course/analyzing-data-with-python

http://math.ecnu.edu.cn/~lfzhou/seminar/[Joel Grus] Data Science from Scratch First Princ.pdf

	COMPUTER SCIENCE	SECCSCT05	2022-23	B.SC(MPCS,MCCS)
	SEMESTER – V/VI	PAPER – VI		Max. Marks 70
	NO of Hours: 3	<u>Model Paper:</u> Data S No Of Credits	science	Pass Marks 28
		SECTION		
Sh	nort Answer Questions	$\mathbf{SECHON} = \mathbf{A}$	Δ	(4 x 5-20Mor
	Tort Answer Questions			(4 x 3-201v1a)
Ans	swer any Four questions. (At l	least 1 question shoul	d be given	from each Unit)
1. \ >	What is Data Science? Explain l	key connectors in data $(CO2, L2)$	science? (C	O1, L1)
2. 3.	Explain a) stuff b) studet with Explain Simple Linear Regress	sion using Gradient De	scent? (CO	4 L2)
<b>4</b> .	Explain briefly about Logistic	Regression? (CO5, L2	)	, 22)
5.	Explain a) Lists b) Tuples c) D	Dictionaries in Python?	(CO1, L2)	
6.	Explain in detail about Manipu	lating data? (CO3, L2	)	
		SECTION B		
swe	er all questions.			$(5 \times 10 = 50 \text{ Mar})$
9.	<ul><li>(A) Explain in detail about Vis</li><li>(O)</li><li>(B) Explain the concept of fun</li></ul>	sualizing Data? (CO <sub>1</sub> , 1 R) ctions and strings in py	L2) ython with e	example? (CO1, L2)
10.	• (A) Explain the concept of read $(OR)$	ding files? (CO3, L2)		
	(B) Explain about Exploring C	One-Dimensional and T	Wo- Dimen	sional data? (CO3, L2)
11.	• (A) Explain Machine learning (OR)	with over fitting and u	nder fitting	in detail? (CO3, L2).
	(B) Explain K- Nearest Neight	bors Model with an exa	ample? (CO	4, L2)
12.	• (A) Explain Maximum Likelih (OR)	ood Estimation with e	xample? (C	O4, L2)
	(B) Explain in detail about M	Iultiple Regression Mo	odel? (CO4,	L2)
13.	• (A) Explain in detail about the (OR)	concept of Decision T	rees? (CO5	, L2)
	(B) Explain the concept of Ne	ural Networks with an	example? (	CO5, L2)

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2022-23)

			- /	
COMPUTER SCIENCE	SECCSCT05	2022-23	B.SC(MPCS,M	ICCS)
SEMESTER – V/VI	PAPER – V	I	Max. I	Marks 50
	Lab List: <b>Data S</b>	cience LAB		
No. of Hours per week: 3	External: 40	Interna	d: 10 Ci	redits: 2
I. Course Outcomes: Students at th	e successful comple	etion of the co	urse will be able	to:
CO1: Implement the programs to g Python language.(PO5)	et the required data,	process it and	present the outpu	its using
CO2: Execute statistical analyses v CO3: Apply data science solutions	vith Open-source Py to real world proble	thon software. ems.(PO5)	(PO5)	

- CO4: Implement Plot Distribution Curve in Python.(PO5)
- CO5: Implement rainfall data importing of some location with the help of packages available in R Studio and plot a chart of your choice.(PO5)

**II: Practical (Laboratory) Syllabus:** 

# LAB EXERCISES

(30 Periods).



- 3. Practical (Laboratory) Syllabus: (30hrs.)
- **4.** Write a Python program to create a line chart for values of year and GDP asgiven below.
- 5. Write a Python program to create a bar chart to display number of students secured different grading as given below



- 6. Write a Python program to create a time series chart by taking one year month wise stock data in a CSV file
- 7. Write a Python program to plot distribution curve
- **8.** Import a CSV file and perform various Statistical and Comparison operations on rows/columns. Write a python program to plot a graph of people with pulse rate pvs. height h. The values of P and H are to be entered by the user.
- **9.** Import rainfall data of some location with the help of packages available in R Studio and plot a chart of your choice.

#### Lab References: 1. Data Science from Scratch by Joel Grus O'Reilly Media

2.Wes McKinney, "Python for Data Analysis: Data Wrangling with Pandas, Num Py, and I Python", O'Reilly, 2nd Edition, 2018.

#### **Reference Materials on the Web/web:**

- a. <u>https://swcarpentry.github.io/python-novice-gapminder/09-plotting/index.html /</u>
- b. <u>https://www.geeksforgeeks.org/visualize-data-from-csv-file-in-python/</u>

#### A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE Vuyyuru-521165.NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* Title of the Paper: PYTHON FOR DATASCIENCE

#### Semester: V/VI

Course Code	SECCSCT06	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022 -23	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** The main objective of the course is to provide students with the basic concepts of Python, its syntax, functions and packages to enable them to write scripts for data manipulation and analysis. The course develops skills of writing and running a code using Python.

CO <sub>1</sub>	Identify the need for data science and solve basic problems using Python built-in data types and their methods.(PO5)
CO2	Design an application with user-defined modules and packages using OOP concepts.(PO5)
CO3	Deploy efficient storage and data operations using NumPy arrays.(PO5)
CO4	Apply powerful data manipulations using Pandas.(PO5)
CO5	Do data pre-processing and visualization using Pandas.(PO5,PO7)

#### **Syllabus**

#### **Course Details**

Unit	Learning Units	Lecture
		Hours
Ι	Basics of python programming-Features of Python, History of Python, Literal	12
	constants, Data Types, Input Operation, Reserved words, Operators and	
	Expressions, Other Data Types, Lists, Dictionary, Type Conversion.	
	Deriving Control Statements, Scheding/on divingel househing, statements, Deriv	10
11	Loop Structures/Iterative Statements, Eulertions and Modules-Introduction, Euler	12
	Definition. Function Call. Modules- Packages in Python. Python strings Revisited.	
	Introduction, Built in String methods and functions, File Handling-Introduction,	
	Opening and closing Files, Reading and writing Files, Directory Methods	
III	Channel Objects Interdention Channel Objects Channel and sulf	14
	classes and Objects- Introduction, Classes and Objects, Class method and self argument. The init() method(the class constructor) Inheritance- Introduction	
	Inheriting classes in python. Types of Inheritance. Error and Exception Handling-	
	Introduction to errors and exceptions, Handling Exceptions, Multiple except blocks	
	,NumPy Basics- Arrays and Vectorized Computation, The NumPyndarray, Creating	
	ndarrays, Data Types for ndarrays, Arithmetic with NumPy Arrays, Basic Indexing	
	and Slicing, Boolean Indexing, Transposing Arrays and Swapping Axes.	10
IV	Universal Functions: Fast Element, Wise Array Functions, Mathematical and Statistical Matheda Sorting Unique and Other Sat Logic Introduction to pendes	12
	Data Structures-Series Data Frame and Essential Functionality Dropping Entries-	
	Indexing, Selection, and Filtering, Function Application and Mapping, Sorting and	
	Ranking.	
V	Summarizing and Computing Descriptive Statistics, Unique Values, Value	10
	Counts, and Membership, Reading and Writing Data in Text Format, Data	
	Cleaning and Preparation: Handling Missing Data, Data Transformation:	
	Removing Duplicates, Transforming Data Using a Function or Mapping,	
	Vectorized String Functions in pandas	
Dofor	anage/ Text Deek/ a beekg/webgiteg	

References/ Text Book/ e-books/websites Text Books:

1. Reemathareja—Python Programming using problem solving approach, Oxford Publication 2. Wes McKinney, "Python for Data Analysis: Data Wrangling with Pandas, NumPy, and IPython", O'Reilly, 2nd Edition, 2018.

#### **Reference Books:**

1.JakeVanderPlas, "Python Data Science Handbook: Essential Tools for Working with 2.Data", O'Reilly, 2017.

3. Wesley J. Chun, "Core Python Programming", Prentice Hall, 2006.

4. Mark Lutz, "Learning Python", O'Reilly, 4th Edition, 2009.

#### **Reference Materials on the Web/web-links:**

- a. <u>https://www.edx.org/course/python-basics-for-data-science</u>
- b. <u>https://www.edx.org/course/analyzing-data-with-python</u>
- c. <u>https://www.coursera.org/learn/python-plotting?specialization=data-science-python</u>

d. https://www.programmer-books.com/introducing-data-science-pdf/

	AG & SG SIDDHARTHA An Autonomous college w (With F	COLLEGE OF ART ithin the jurisdiction Effect from Academic	S AND SC of Krishna Year 2022	IENCES - VUYYURU. University A.P, India. -23)
	COMPUTER SCIENCE	SECCSCT06	2022-23	B.SC(MPCS,MCCS)
SEMESTER - V/VIPAPER - VIIMax. Marks 70Model Paper:PYTHON FOR DATASCIENCE				Max. Marks 70 IENCE
	NO of Hours: 3 No Of Credits: 3 Pass Marks 28			
Shor Ans 1) 2) 3) 4) 5) 6) Ans	rt Answer Questions wer any Four questions. (At leas State any four applications wher List out the main differences bet What are the uses of File object? Differentiate between an error an Write Array Functions(CO4,L1) How to read and write data in ter wer all questions. (Two question	SECTION – A st 1 question should b e python is more popu ween lists and tuples.(( 2(CO2,L1) nd exception(CO3,L3) xt format(CO5,L4) SECTION - B ns should be given fro	e given fro lar(CO1,L1 CO1,L2) m each uni	(4 x 5=20Marks) m each Unit) ) (5 x 10=50Marks it with internal choice)
(b 10 ( (1	<ul> <li>a). Explain Various data types in p</li> <li>b). List different conditional state</li> <li>b). Explain the following file buil</li> </ul>	OR python with Examples( ments in python with a OR It-in functions and met	(CO2,L2) ppropriate of hod with clo	examples.(CO2,L2) ear syntax, description and
11 (	illustration: a) open () b) file ( (a). How does try-except statement b). Explain NumPy arrays with su	( ) c) seek ( ) d) tell ( ) t work? Demonstrate w OR itable example(CO3,L	e)read ( )(C vith an exan 2)	CO3,L2)
<ul> <li>12 (a).Write Briefly Pandas Data structure(CO4,L1)</li> <li>OR</li> <li>(b).Write a python program to read data from CSV files using pandas(CO4,L1)</li> </ul>				
13 (	a). How to remove duplicates from	n data transformation() OR lisation(CO5,L2).	CO5,L4)	

	AG & SG SIDDHARTHA (	COLLEGE OF A	RTS AND SC	IENCES - VUYYUR	XU.
	An Autonomous college	within the jurisdi	ction of Krishn	a University A.P, Ind	ia.
	(With E	ffect from Acader	nic Year 2022	-23)	
	COMPUTER SCIENCE	SECCSCT06	2022-23	B.SC(MPCS,MCC	<b>S</b> )
	SEMESTER – V/VI	PAPER – V		Max. Ma	rks 50
	Lab List: P	(THON FOR DA	TA SCIENCE	LAB	
Cre	dits: 2	External:	40 1110	ernal: 10	
I. C	ourse Outcomes: Students at the	successful compl	etion of the co	urse will be able to:	
COI	:Understand the basic concep	ots of python	programs and	d perform List,	Tuple and
	Dictionary(PO5,PO7)				
$CO_2$	2: Understand the program of funct	ions (PO5,PO7)			
CO3	L: Understand concepts of OOPS (1)	PO5 PO7	PO7)		
COS	5: Able to Solving of data frames (I	205,P07)			
II: I	Practical (Laboratory) Syllabus:	(30 Periods)			
1.	Perform Creation, indexing, slicit	ng, concatenation	and repetition (	operations on Python	built-
	in data types: Strings, List, Tuple	s, Dictionary			
2.	Apply Python built-in data types:	List, Tuples, Dict	ionary and the	ir methods to solve an	y given
3.	Handle numerical operations usir	g math and rando	n number func	tions	
4.	Create user-defined functions with	h different types o	f function argu	ments.	
5.	Create packages and import modules from packages.				
6.	Perform File manipulations- oper	n, close, read, write	e, append and o	copy from one file to a	another.
7.	Write a program for Handle Exceptions using Python Built-in Exceptions				
8.	Write a program to implement OOP concepts				
9.	Create NumPy arrays from Pyth	ion Data Structur	es, Intrinsic N	umPy objects and R	andom
10.	Manipulation of NumPy arrays- I	ndexing, Slicing, I	Reshaping, Joir	ning and Splitting.	
11.	Computation on NumPy arrays u	sing Universal Fur	ictions and Ma	thematical methods.	
12.	Load an image file and do crop a	nd flip operation u	sing NumPy In	dexing.	
13.	Create Pandas Series and Data Fr	ame from various	inputs.		
14.	Import any CSV file to Pandas D	ata Frame and perf	form the follow	ving:	
	(a) Visualize the first and last 10	records (b)Get the	shape, index a	and column details	and contine
	(c) Select/Delete the records (fow operations (e) Do required statisti	(s)/columns dased	on conditions.	(d) Periorin ranking a	nd sorting
	(f)Find the count and uniqueness	s of the given cates	orical values.		
	(g)Rename single/multiple colur	nns	,		
15.	Import any CSV file to Pandas D	ata Frame and perf	form the follow	ving:	
	(a) Handle missing data by detec	ting and dropping/	filling missing	g values.	
	(b) Transform data using apply ()	and map() metho	d.		
	(d) Perform Vectorized String on	erations on Panda	Series		
III.	Lab References: Wesley J. Chur	n, "Core Python P	rogramming",	Prentice Hall, 2006.	Jake Vander
	Plas, "Python Data Science Handb	ook: Essential Too	ols for Working	g with Data", O'Reill	y, 2017.

Reference Materials on the Web/web-links:

https://www.coursera.org/learn/python-plotting?specialization=data-science- python

## A.G & S.G.SIDDHARTHA DEGREE COLLEGE OFARTS & SCIENCE Vuyyuru-521165.NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* Title of the Paper: BIG DATA ANALYTICS USING R

#### Semester: V/VI

Course Code	SECCAT01	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022-23	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** Big data analytics examines large amounts of data to uncover hidden patterns, correlations and other insights. With today's technology, it's possible to analyze your data and get answers from it almost immediately - an effort that's slower and less efficient with more traditional business intelligence solutions.

#### **Course Outcomes:**

CO <sub>1</sub>	Understand data and classification of digital data. (PO5)
CO2	Gain knowledge of technologies used in bigdata Analytics. (PO5, PO7)
CO3	Understand basics of R and control structures in R. (PO5)
CO4	Load data into R objects and manipulate them as needed. (PO5)
CO5	Create and edit visualizations with R (PO7)

#### Syllabus

**Course Details** 

Unit	Learning Units	Lecture
		Hours
Ι	Introduction to Big data: What is data, Classification of Digital Data-Structured	12
	Unstructured, semi-structured data, Characteristics of data, Evaluation of big data,	
	Definition and challenges of big data, what is big data and why to use big data?	
II	<b>Big data Analytics:</b> What is and isn't big data analytics? Classification of analytics, Importance of big data analytics, Technologies needed to meet challenges of big data, data science, Data scientist	12
III	<b>Introduction to R and getting started with R:</b> What is R? Why R? Advantages of R over other programming languages, Data types in R - logical, numeric, integer, character, double, Complex, raw, coercion, ls () command, Expressions, Variables and functions, control structures, Array, Matrix, Vectors, Factors, R packages	14
IV	<b>Exploring data in R</b> – Data frames-data frame access, Ordering data frames, functions for data frames dim(), nrow(), ncol(), str(), summary(), names(), head(), tail(), edit(), Load data frames—reading from .CSV files, Sub setting data frames, reading from tab separated value files, Reading from tables, merging data frames	12
V	<b>Data Visualization using R</b> : Reading and getting data into R (External Data), Using CSV files, XML files, Web Data, JSON files, Databases, Excel files, Working with R Charts and Graphs: Histograms, Boxplots, Bar Charts, Line Graphs, Scatter plots, Pie Chart	10

## **Prescribed Text Book**:

1. Seema Acharya--Data Analytics using R, McGraw Hill education (India) Private Limited.

2. Big Data Analytics, Introduction to Hadoop, Spark, and Machine-Learning, Raj Kamal, PreetiSaxena,

McGraw Hill, 2018

#### **Reference Books**:

1. SeemaAcharya, SubhashiniChellappan --- Big Data and Analytics second edition, Wiley

2. Big Data, Big Analytics: Emerging Business intelligence and Analytic trends for Today's Business, Michael Minnelli, Michelle Chambers, and AmbigaDhiraj, John Wiley & Sons, 2013

3. An Introduction to R, Notes on R: A Programming Environment for Data Analysis and Graphics. W. N. Venables, D.M. Smith and the R Development Core Team

**Course Focus:** R for data science focuses on the language's statistical and graphical uses. When you learn R for data science, you'll learn how to use the language to perform statistical analyses and develop data visualizations. R's statistical functions also make it easy to clean, import and analyze data.
#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

COMPLITER SCIENCE	SECCAT01	2020-2020	B COM (CA)
SEMESTED V/VI	DADED T	4044-43 V	May Marks 70
SEIVIESTER - V/VI	TALER-I	V FICS LISING	Max. Maiks /0
Model Paper: BI		IICS USING	
NO of Hours: 3	No Of Credits: 3		Pass Marks 28
	Section	<u>on-A</u>	
Answer any Four questions. At least 1 question should be	given from each U	(nit)	(4 x 5=25Marks)
1. What is big data and why to	use a big data? (CC	D1. L1)	(+ x 0-2010101 KS)
2. What is big data analytics? (	(CO2, L1)		
3. Explain ls () command in R.	(CO3, L2)		
4. Write a short note on charts.	(CO5, L1)		
5. Develop R script to load dat	a into data frames f	rom files. ( $CO_{4}$	4, L6)
6. Write about the control struc	ctures in R with exa	mples. (CO3, I R	L1)
	Section	<u>D</u>	
Answer all questions.			(5X10=50Mark
Two questions should be given	n from each unit w	ith internal ch	noice)
(a) Give Classification of Digit	tal Data and explair	n it. (CO1, L2)	
	· (	<b>DR</b>	
(b) Explain Characteristics of I	Data with an examp	le. (CO1, L2)	
0.(a) Write about Importance of	f big Data Analytics	s. (CO2, L1)	
	(	DR	
(b) Explain Classification of A	Analytics. (CO2, L2	2)	
1.(a) Write about the Data type	s in Explain with ex	amples. (CO3.	, L1)
	· (	<b>DR</b>	
(b) Construct Vector in R and	l explain various op	erations on it.	(CO3, L3)
2. (a) What are the data frames	? Write its significa	nce in R-Lang	uage. (CO4, L1)
	<u> </u>	<b>DR</b>	
(b) Demonstrate various func	tions used in data fi	rames. (CO4, I	
3.(a) Build a code in R for read	ing and getting data	a into R from d	atabases. (CO5, L6)
	(	)R	

- (b) Develop below plots in R (CO5, L6)
  - a) Box Whisker plots b)Scatter plots c)Pairs plots

An Autonomous college within the jurisdiction of Krishna University A.P, India.

COMPUTER SCIENCE         SECCAT01         2022-23         B.COM (CA)           SEMESTER - V         PAPER - VI         Max. Marks 50           Title: BIG Data Analysis using Python lab         No. of Hours per week: 3 External: 40 Internal: 10 Credits: 2 Pass Marks 20           I. Course Outcomes: Students at the successful completion of the course will be able to:         CO1: Implement simple scripts or programs in R. (PO5)           CO2: Access online resources for R and import new function packages into the R workspace. (PO5, PC         CO3: Import, review, manipulate and summarize data-sets in R (PO5, PO7)           CO4: Explore data-sets to create testable hypotheses and identify appropriate statistical tests. (PO5, PC         CO5: Create and edit visualizations with R. (PO5, PO7)           II: Practical (Laboratory) Syllabus: (30 Periods)         1         Create a vector in R and perform operations on it (arithmetic operations, combining Vectors, retrieving elements of vector, assign names to vector elements).         2           Create a netrix of values in R and extract data from matrix. (Ex. Second row thirdetc.) find transpose of matrix and combine two matrices using Rbind and Cbind functions.         4           Create a list in R and perform operations on it like list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function.         5           Create data frame in R and perform operations on it         6         Write code in R to find out whether a number is prime or not.           Print numbers from 1 to 100 using while loop and for		(Wit	h Effect from Acad	emic Year 202	0-21)			
SEMESTER - V       PAPER - VI       Max. Marks 50         Title: BIG Data Analysis using Python lab         No. of Hours per week: 3 External: 40 Internal: 10 Credits: 2 Pass Marks 20         I. Course Outcomes: Students at the successful completion of the course will be able to:         CO1: Implement simple scripts or programs in R. (PO5)         CO2: Access online resources for R and import new function packages into the R workspace. (PO5, PC         CO3: Import, review, manipulate and summarize data-sets in R (PO5, PO7)         CO4: Explore data-sets to create testable hypotheses and identify appropriate statistical tests. (PO5, PC         CO5: Create and edit visualizations with R. (PO5, PO7)         CO4: Explore data-sets to create testable hypotheses and identify appropriate statistical tests. (PO5, PC         CO5: Create and edit visualizations with R. (PO5, PO7) <b>II: Practical (Laboratory) Syllabus: (30 Periods)</b> 1. Create a vector in R and perform operations on it (arithmetic operations, combining Vectors, retrieving elements of vector, assign names to vector elements).         2. Create a matrix of values in R and extract data from matrix. (Ex. Second row thirdetc.) find transpose of matrix and combine two matrices using Rbind and Cbind functions.         3. Create a list in R and perform operations on it       Ike list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function. <t< th=""><th></th><th colspan="7">COMPUTER SCIENCESECCAT012022-23B.COM (CA)</th></t<>		COMPUTER SCIENCESECCAT012022-23B.COM (CA)						
<ul> <li>Title: BIG Data Analysis using Python lab</li> <li>No. of Hours per week: 3 External: 40 Internal: 10 Credits: 2 Pass Marks 20</li> <li>I. Course Outcomes: Students at the successful completion of the course will be able to:</li> <li>CO1: Implement simple scripts or programs in R. (PO5)</li> <li>CO2: Access online resources for R and import new function packages into the R workspace. (PO5, PC</li> <li>CO3: Import, review, manipulate and summarize data-sets in R (PO5, PO7)</li> <li>CO4: Explore data-sets to create testable hypotheses and identify appropriate statistical tests. (PO5, PC</li> <li>CO5: Create and edit visualizations with R. (PO5, PO7)</li> <li>II: Practical (Laboratory) Syllabus: (30 Periods)</li> <li>1. Create a vector in R and perform operations on it (arithmetic operations, combining Vectors, retrieving elements of vector, assign names to vector elements).</li> <li>2. Create integer, complex, logical, character data type objects in R and print their values And their class using print and class functions.</li> <li>3. Create a matrix of values in R and extract data from matrix. (Ex. Second row thirdetc.) find transpose of matrix and combine two matrices using Rbind and Cbind functions.</li> <li>4. Create a list in R and perform operations on it like list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function.</li> <li>5. Create data frame in R and perform operations on it</li> <li>6. Write code in R to find out whether a number is prime or not.</li> <li>7. Print numbers from 1 to 100 using while loop and for loop in R.</li> <li>8. Find the factorial of a number using recursion in R.</li> <li>9. Perform arithmetic operations in R using switch case</li> <li>10. Write a code in R to find out whether the number is Armstrong or not.</li> <li>11. Program to find Multiplication table from 1 to 10 number input by user.</li> <li>12. Import data into R from text and excel files using read.table() and read.csv() function.</li> </ul>	S	EMESTER – V	PAPER – VI		Max. Marks 50			
<ul> <li>No. of Hours per week: 3 External: 40 Internal: 10 Credits: 2 Pass Marks 20</li> <li>I. Course Outcomes: Students at the successful completion of the course will be able to:</li> <li>CO1: Implement simple scripts or programs in R. (PO5)</li> <li>CO2: Access online resources for R and import new function packages into the R workspace. (PO5, PC</li> <li>CO3: Import, review, manipulate and summarize data-sets in R (PO5, PO7)</li> <li>CO4: Explore data-sets to create testable hypotheses and identify appropriate statistical tests. (PO5, PC</li> <li>CO5: Create and edit visualizations with R. (PO5, PO7)</li> <li>II: Practical (Laboratory) Syllabus: (30 Periods)</li> <li>1. Create a vector in R and perform operations on it (arithmetic operations, combining Vectors, retrieving elements of vector, assign names to vector elements).</li> <li>2. Create integer, complex, logical, character data type objects in R and print their values And their class using print and class functions.</li> <li>3. Create a matrix of values in R and extract data from matrix. (Ex. Second row thirdetc.) find transpose of matrix and combine two matrices using Rbind and Cbind functions.</li> <li>4. Create a list in R and perform operations on it like list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function.</li> <li>5. Create data frame in R and perform operations on it</li> <li>6. Write code in R to find out whether a number is prime or not.</li> <li>7. Print numbers from 1 to 100 using while loop and for loop in R.</li> <li>8. Find the factorial of a number using recursion in R.</li> <li>9. Perform arithmetic operations in R using switch case</li> <li>10. Write a code in R to find out whether the number is Armstrong or not.</li> <li>11. Program to find Multiplication table from 1 to 10 number input by user.</li> <li>12. Import data into R from text and excel files using read. table() and read.csv() function.</li> </ul>		Title: I	BIG Data Analysis	using Python	lab			
<ul> <li>I. Course Outcomes: Students at the successful completion of the course will be able to: CO1: Implement simple scripts or programs in R. (PO5)</li> <li>CO2: Access online resources for R and import new function packages into the R workspace. (PO5, PC CO3: Import, review, manipulate and summarize data-sets in R (PO5, PO7)</li> <li>CO4: Explore data-sets to create testable hypotheses and identify appropriate statistical tests. (PO5, PC CO5: Create and edit visualizations with R. (PO5, PO7)</li> <li>II: Practical (Laboratory) Syllabus: (30 Periods)</li> <li>1. Create a vector in R and perform operations on it (arithmetic operations, combining Vectors, retrieving elements of vector, assign names to vector elements).</li> <li>2. Create integer, complex, logical, character data type objects in R and print their values And their class using print and class functions.</li> <li>3. Create a matrix of values in R and extract data from matrix. (Ex. Second row thirdetc.) find transpose of matrix and combine two matrices using Rbind and Cbind functions.</li> <li>4. Create a list in R and perform operations on it like list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function.</li> <li>5. Create data frame in R and perform operations on it</li> <li>6. Write code in R to find out whether a number is prime or not.</li> <li>7. Print numbers from 1 to 100 using while loop and for loop in R.</li> <li>8. Find the factorial of a number using recursion in R.</li> <li>9. Perform arithmetic operations in R using switch case</li> <li>10. Write a code in R to find out whether the number is Armstrong or not.</li> <li>11. Program to find Multiplication table from 1 to 10 number input by user.</li> <li>12. Import data into R from text and excel files using read.table() and read.csv() function.</li> </ul>		No. of Hours per week: 3	External: 40 Inte	ernal: 10 Cro	edits: 2 Pass Marks 20			
<ul> <li>CO1: Implement simple scripts or programs in R. (PO5)</li> <li>CO2: Access online resources for R and import new function packages into the R workspace. (PO5, PO CO3: Import, review, manipulate and summarize data-sets in R (PO5, PO7)</li> <li>CO4: Explore data-sets to create testable hypotheses and identify appropriate statistical tests. (PO5, PC CO5: Create and edit visualizations with R. (PO5, PO7)</li> <li><b>II: Practical (Laboratory) Syllabus: (30 Periods)</b></li> <li>1. Create a vector in R and perform operations on it (arithmetic operations, combining Vectors, retrieving elements of vector, assign names to vector elements).</li> <li>2. Create integer, complex, logical, character data type objects in R and print their values And their class using print and class functions.</li> <li>3. Create a matrix of values in R and extract data from matrix. (Ex. Second row thirdetc.) find transpose of matrix and combine two matrices using Rbind and Cbind functions.</li> <li>4. Create a list in R and perform operations on it like list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function.</li> <li>5. Create data frame in R and perform operations on it</li> <li>6. Write code in R to find out whether a number is prime or not.</li> <li>7. Print numbers from 1 to 100 using while loop and for loop in R.</li> <li>8. Find the factorial of a number using recursion in R.</li> <li>9. Perform arithmetic operations in R using switch case</li> <li>10. Write a code in R to find out whether the number is Armstrong or not.</li> <li>11. Program to find Multiplication table from 1 to 10 number input by user.</li> <li>12. Import data into R from text and excel files using read.table() and read.csv() function.</li> </ul>	I. Cour	rse Outcomes: Students at the	e successful comple	etion of the cou	rse will be able to:			
<ul> <li>CO2: Access online resources for R and import new function packages into the R workspace. (PO5, PC CO3: Import, review, manipulate and summarize data-sets in R (PO5, PO7)</li> <li>CO4: Explore data-sets to create testable hypotheses and identify appropriate statistical tests. (PO5, PC CO5: Create and edit visualizations with R. (PO5, PO7)</li> <li><b>II: Practical (Laboratory) Syllabus: (30 Periods)</b></li> <li>1. Create a vector in R and perform operations on it (arithmetic operations, combining Vectors, retrieving elements of vector, assign names to vector elements).</li> <li>2. Create integer, complex, logical, character data type objects in R and print their values And their class using print and class functions.</li> <li>3. Create a matrix of values in R and extract data from matrix. (Ex. Second row thirdetc.) find transpose of matrix and combine two matrices using Rbind and Cbind functions.</li> <li>4. Create a list in R and perform operations on it like list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function.</li> <li>5. Create data frame in R and perform operations on it</li> <li>6. Write code in R to find out whether a number is prime or not.</li> <li>7. Print numbers from 1 to 100 using while loop and for loop in R.</li> <li>8. Find the factorial of a number using recursion in R.</li> <li>9. Perform arithmetic operations in R using switch case</li> <li>10. Write a code in R to find out whether the number is Armstrong or not.</li> <li>11. Program to find Multiplication table from 1 to 10 number input by user.</li> <li>12. Import data into R from text and excel files using read.table() and read.csv() function.</li> </ul>	CO1: In	mplement simple scripts or pro	grams in R. (PO5)					
<ul> <li>CO3: Import, review, manipulate and summarize data-sets in R (PO5, PO7)</li> <li>CO4: Explore data-sets to create testable hypotheses and identify appropriate statistical tests. (PO5, PC</li> <li>CO5: Create and edit visualizations with R. (PO5, PO7)</li> <li><b>II: Practical (Laboratory) Syllabus: (30 Periods)</b></li> <li>1. Create a vector in R and perform operations on it (arithmetic operations, combining Vectors, retrieving elements of vector, assign names to vector elements).</li> <li>2. Create integer, complex, logical, character data type objects in R and print their values And their class using print and class functions.</li> <li>3. Create a matrix of values in R and extract data from matrix. (Ex. Second row thirdetc.) find transpose of matrix and combine two matrices using Rbind and Cbind functions.</li> <li>4. Create a list in R and perform operations on it like list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function.</li> <li>5. Create data frame in R and perform operations on it</li> <li>6. Write code in R to find out whether a number is prime or not.</li> <li>7. Print numbers from 1 to 100 using while loop and for loop in R.</li> <li>8. Find the factorial of a number using recursion in R.</li> <li>9. Perform arithmetic operations in R using switch case</li> <li>10. Write a code in R to find out whether the number is Armstrong or not.</li> <li>11. Program to find Multiplication table from 1 to 10 number input by user.</li> <li>12. Import data into R from text and excel files using read.table() and read.csv() function.</li> </ul>	CO2: A	Access online resources for R a	nd import new func	tion packages i	nto the R workspace. (PO5, PO7			
<ul> <li>CO4: Explore data-sets to create testable hypotheses and identify appropriate statistical tests. (PO5, PC CO5: Create and edit visualizations with R. (PO5, PO7)</li> <li><b>II: Practical (Laboratory) Syllabus: (30 Periods)</b></li> <li>1. Create a vector in R and perform operations on it (arithmetic operations, combining Vectors, retrieving elements of vector, assign names to vector elements).</li> <li>2. Create integer, complex, logical, character data type objects in R and print their values And their class using print and class functions.</li> <li>3. Create a matrix of values in R and extract data from matrix. (Ex. Second row thirdetc.) find transpose of matrix and combine two matrices using Rbind and Cbind functions.</li> <li>4. Create a list in R and perform operations on it like list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function.</li> <li>5. Create data frame in R and perform operations on it</li> <li>6. Write code in R to find out whether a number is prime or not.</li> <li>7. Print numbers from 1 to 100 using while loop and for loop in R.</li> <li>8. Find the factorial of a number using recursion in R.</li> <li>9. Perform arithmetic operations in R using switch case</li> <li>10. Write a code in R to find out whether the number is Armstrong or not.</li> <li>11. Program to find Multiplication table from 1 to 10 number input by user.</li> <li>12. Import data into R from text and excel files using read.table() and read.csv() function.</li> </ul>	CO3: In	mport, review, manipulate and	summarize data-se	ts in R (PO5, P	O7)			
<ul> <li>CO5: Create and edit visualizations with R. (PO5, PO7)</li> <li>II: Practical (Laboratory) Syllabus: (30 Periods)</li> <li>1. Create a vector in R and perform operations on it (arithmetic operations, combining Vectors, retrieving elements of vector, assign names to vector elements).</li> <li>2. Create integer, complex, logical, character data type objects in R and print their values And their class using print and class functions.</li> <li>3. Create a matrix of values in R and extract data from matrix. (Ex. Second row thirdetc.) find transpose of matrix and combine two matrices using Rbind and Cbind functions.</li> <li>4. Create a list in R and perform operations on it like list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function.</li> <li>5. Create data frame in R and perform operations on it</li> <li>6. Write code in R to find out whether a number is prime or not.</li> <li>7. Print numbers from 1 to 100 using while loop and for loop in R.</li> <li>8. Find the factorial of a number using recursion in R.</li> <li>9. Perform arithmetic operations in R using switch case</li> <li>10. Write a code in R to find out whether the number is Armstrong or not.</li> <li>11. Program to find Multiplication table from 1 to 10 number input by user.</li> <li>12. Import data into R from text and excel files using read.table() and read.csv() function.</li> </ul>	CO4: E	Explore data-sets to create testa	ble hypotheses and	identify approp	riate statistical tests. (PO5. PO7			
<ul> <li>II: Practical (Laboratory) Syllabus: (30 Periods)</li> <li>1. Create a vector in R and perform operations on it (arithmetic operations, combining Vectors, retrieving elements of vector, assign names to vector elements).</li> <li>2. Create integer, complex, logical, character data type objects in R and print their values And their class using print and class functions.</li> <li>3. Create a matrix of values in R and extract data from matrix. (Ex. Second row thirdetc.) find transpose of matrix and combine two matrices using Rbind and Cbind functions.</li> <li>4. Create a list in R and perform operations on it like list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function.</li> <li>5. Create data frame in R and perform operations on it</li> <li>6. Write code in R to find out whether a number is prime or not.</li> <li>7. Print numbers from 1 to 100 using while loop and for loop in R.</li> <li>8. Find the factorial of a number using recursion in R.</li> <li>9. Perform arithmetic operations in R using switch case</li> <li>10. Write a code in R to find out whether the number is Armstrong or not.</li> <li>11. Program to find Multiplication table from 1 to 10 number input by user.</li> <li>12. Import data into R from text and excel files using read.table() and read.csv() function.</li> </ul>	CO5: C	Create and edit visualizations w	vith R. (PO5, PO7)	JIIII				
<ol> <li>Create a vector in R and perform operations on it (arithmetic operations, combining Vectors, retrieving elements of vector, assign names to vector elements).</li> <li>Create integer, complex, logical, character data type objects in R and print their values And their class using print and class functions.</li> <li>Create a matrix of values in R and extract data from matrix. (Ex. Second row thirdetc.) find transpose of matrix and combine two matrices using Rbind and Cbind functions.</li> <li>Create a list in R and perform operations on it like list slicing, sum and mean functions, head and tail functions and finally delete list using rm() function.</li> <li>Create data frame in R and perform operations on it</li> <li>Write code in R to find out whether a number is prime or not.</li> <li>Print numbers from 1 to 100 using while loop and for loop in R.</li> <li>Find the factorial of a number using recursion in R.</li> <li>Perform arithmetic operations in R using switch case</li> <li>Write a code in R to find out whether the number is Armstrong or not.</li> <li>Program to find Multiplication table from 1 to 10 number input by user.</li> <li>Import data into R from text and excel files using read.table() and read.csv() function.</li> </ol>	II. Pra	ctical (Laboratory) Syllabus:	( <b>30</b> Periods)					
13.Create a dataset and draw different types of graphics using plot, box plot, histogram,	<ol> <li>Crea Vec</li> <li>Crea And</li> <li>Crea find</li> <li>Crea head</li> <li>Crea 6. Writ</li> <li>Print</li> <li>Find</li> <li>Perfo</li> <li>Writ</li> <li>Find</li> <li>Perfo</li> <li>Writ</li> <li>The prospective set of the prospective s</li></ol>	ate a vector in R and perform op tors, retrieving elements of vec ate integer, complex, logical, cl I their class using print and class ate a matrix of values in R and transpose of matrix and combi- te a list in R and perform opera- and tail functions and finally of the data frame in R and perform e code in R to find out whether the factorial of a number using orm arithmetic operations in R ite a code in R to find out whether gram to find Multiplication tab- port data into R from text and e ate a dataset and draw different plot functions	perations on it (arither that is a sign names to haracter data type of ss functions. extract data from m ine two matrices using the two matrices using the lete list using rm( a operations on it is a number is prime while loop and for light grecursion in R. using switch case her the number is A ble from 1 to 10 num xcel files using react types of graphics using the sign of the state of the sign of the sign of the sign of the types of graphics using the sign of the sign o	ametic operatio by vector element bjects in R and atrix. (Ex. Second ing Rbind and C slicing, sum and ) function. or not. oop in R. Armstrong or not aber input by us 1.table() and real using plot, box p	ns, combining nts). print their values ond row thirdetc.) Cbind functions. d mean functions, d mean functions, et. ser. ad.csv() function. plot, histogram,			
	14. Cre 15. Cre	eate custom contingency in R as	nd perform operation	ing oar charts, jons on it.	pie chart functions.			

#### III. Lab References:

1. Seema Acharya--Data Analytics using R, McGraw Hill education (India) Private Limited.

2. Big Data Analytics, Introduction to Hadoop, Spark, and Machine-Learning, Raj kamal,

PreetiSaxena, McGraw Hill, 2018

#### **Reference Materials on the Web/web-links:**

1. <u>https://www.wiley.com/enbd/Big+Data.+Big+Analytics:+Emerging+Business+Intelligence+and+</u> <u>Analytic+Trends+for+Today's+Businesses-p-9781118147603</u>

# A.G & S.G.SIDDHARTHA DEGREE COLLEGE OFARTS & SCIENCE

Vuyyuru-521165.NAAC reaccredited at 'A' level

# Autonomous -ISO 9001 – 2015 Certified

# Title of the Paper: Data Science using Python

#### Semester: V/VI

Course Code	SECCAT02	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022- 23	Year of Offering: 2022 - 23	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** The main objective of the course is to provide students with the basic concepts of Python, its syntax, functions and packages to enable them to write scripts for data manipulation and analysis. The course develops skills of writing and running a code using Python.

#### Course Outcomes: Students at the successful completion of the course will be able to:

CO <sub>1</sub> Understand the need and importance of data science.(PO5,PO7)		
CO <sub>2</sub>	Understand basic concepts of python and implementing control structures in	
	python.(PO5)	
CO <sub>3</sub>	Implement strings and other data structures in python(PO5,PO7)	
$\mathrm{CO}_4$	Learn and Implement functions and modules in python.(PO5)	
CO <sub>5</sub>	Learn and Implement data cleaning and plotting using pandas.(PO5,PO7)	

Syllabus			
	Course Details		
Unit	Learning Units	Lecture Hours	
Ι	<b>INTRODUCTION TODATA SCIENCE</b> Data science and its importance, Advantages of data science, The process of data science, Responsibilities of a data scientist, Qualifications of data scientists, Would you be a good data scientist?, Why to use python for data science?	12	
II	<b>INTRODUCTION TO PYTHON</b> What is python?, Features of python, History of python, Writing and executing the python program, Basic syntax, Variables, Keywords, Data types, Operators, Indentation, Control Structures-Conditional statements—If, If-else, Nested if-else, Looping statements—For, While, Nested Loops, Break, Continue, Pass	12	
III	<b>STRINGS AND DATA STRUCTURES</b> Strings - definition, accessing, slicing and basic operations, Lists - introduction, accessing list, operations, working with lists, functions and methods, Tuples - introduction, accessing tuple, operations, Dictionaries- introduction, accessing values in dictionaries, working with dictionaries.	14	
IV	<b>FUNCTIONSANDMODULES</b> Functions- Defining a function, Calling a function, Types of functions, Function arguments, Local and global variables, Lambda and recursive functions, ModulesMath, Random, OS, Date and Time	10	
V	<b>PANDAS</b> What is Pandas?, Series, Data Frame, Read CSV Files, Analyzing Data Frames, Data Correlations, Data CleaningEmpty cells, Data in wrong format, Wrong data, Duplicates, Pandas Plotting plot () method, bar plot, hist plot, box plot, area plot, scatter plot, pie plot	12	

# **Prescribed Books:**

- 1. Steven cooper--- Data Science from Scratch, Kindle edition
- 2. Reemathareja—Python Programming using problem solving approach, Oxford Publication

#### **Reference Books:**

1.Wes McKinney--- Python for Data Analysis ,O'REILLY

	AG & SG SIDDHARTHA	COLLEGE OF A	RTS AND SC	IENCES - VUYYURU.				
An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2022-23)								
	COMPUTER SCIENCESECCAT022022-23B.COM (CA)							
	SEMESTER – V/VI	PAPER – VI	[	Max. Marks 70				
	Model	<u>Paper:</u> Data Anal	ysis using Pytl	hon				
1	NO of Hours: 3	No Of Cred	its: 3	Pass Marks 28				
		<u>Sectio</u>	<u>n – A</u>					
Answer (At leas 1. Write 2. What 3. Expla 4. Expla 5. Expla 6. What	any Four questions. t 1 question should be given advantages of data science. (( are the qualifications of data science) in about the history of python in about string operations in p in about the date and time mo is data cleaning? Explain abo all questions.	from each Unit) CO1, L1) scientist? (CO1, L2) .(CO2, L1) bython.(CO3, L1) dule in python.(CO ut duplicates in pan <u>Sectio</u>	) 4, L1) das.(CO5, L1) <u><b>n</b> – B</u>	(4 x 5=20Marks)				
( <b>Two qu</b> 9. (a) W 9. (b) Ez	<b>Testions should be given from</b> hat is Data Science? Explain t splain the use of python for da	n each unit with in he Responsibilities OR ta science?(CO1, L	ternal choice) of a data scient 1)	( <b>5x10=50Marks</b> ) tist.(CO1, L2)				
10. (a) E 10. (b) E	Explain different types of cond	itional statements v OR ping statements with	vith examples.(	CO2, L1) D2, L1)				
11. (a) V 11. (b)W	What is a list? Explain differen O What is a Dictionary? Explain a	t operations of lists <b>R</b> accessing values in	with examples it with example	in python. (CO3, L2) es in python (CO3, L2)				
12. (a) E 12. (b) E	Explain Function definition, ca	Illing & different typ OR h module in python	pes in python v with an examp	vith example.(CO4, L1) ple.(CO4, L1)				

13. (a) What is a data frame? Illustrate the concept of analysing the data frames.(CO5, L2)

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Vear 2022-23)

	(With Effect Hold Academic Feat 2022-25)					
	COMPUTER SCIENCE	SECCAT02	2022-23	<b>B.COM (CA)</b>		
SEMESTER – V/VI		PAPER – V	[]	Max. Marks 50		
	Lab List: I	DATASCIENCE US	SING PYTHO	ON LAB		
I	No. of Hours per week: 3	External: 40	Internal: 10	Credits: 2		
I CO1: In CO1: In CO2: In CO3: In CO4:Im II: Prace 1. Pytho 2. Pytho 3. Pytho 5. Pytho 6. Pytho 7. Pytho 8. Pytho 9. Pytho 10. Pyth 11. Pyth	Lab List: I No. of Hours per week: 3 se Outcomes: Students at the implement simple programs in implement control structures like implement data structures like is structures like implement data structures lis implemen	ATASCIENCE US External: 40 e successful complete basics of python.(PO python.(PO5) strings, list, tuples, for data cleaning and plate (30 Periods) e Root fables dom Number ber is odd or Even t Among Four Number thiplication Table facci sequence ing Number of Natural Numbers e Calculator	SING PYTHO Internal: 10 etion of the cor D5) dictionaries in otting in panda	ON LAB Credits: 2 Irse will be able to: python.(PO5,PO7) s.(PO5,PO7)		
12. Pytł	non Program to Find Factorial	of Number Using R	ecursion			
13. Pyth	13. Python Program to Add Two Matrices					
<ol> <li>14. Pyth</li> <li>15. Pyth</li> <li>16. Pyth</li> <li>17. Pyth</li> </ol>	<ul> <li>14. Python Program to Multiply 1 wo Matrices</li> <li>15. Python Program to Check Whether a String is Palindrome or Not</li> <li>16. Python Program to perform operations on strings.</li> <li>17. Python Program to create a list and perform operations on its contents.</li> </ul>					
18. Pytł	8. Python Program to perform operations on tuples.					
19. Pytł	9. Python Program to create a dictionary and print its content.					
20. Pytł	non program to import data fro	om CSV file using pa	andas.			
21. Pyth III. Lat 1. Ree	<ol> <li>Python program to demonstrate plots</li> <li><b>I. Lab References:</b> <ul> <li>Reemathareja—Python Programming using problem solving approach,Oxford Publication</li> </ul> </li> </ol>					
Keferer	nce Materials on the Web/we	eb-links:				

1. https://www.w3schools.com/python/

I.

2. https://www.geeksforgeeks.org/python-basics/

# A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE Vuyyuru-521165.NAAC reaccredited at 'A' level Autonomous -*ISO 9001 – 2015 Certified*

#### Title of the Paper: MOBILE APPLICATION DEVELOPMENT

#### Semester: V/VI

Course Code	SECCAT03	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022- 23	Year of Offering: 2022 - 23	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** Covers introductory mobile application development for the Android Operating System using XML and Java. Includes developing simple applications that could run on Android phones and tablets. Covers Android application development phases, terminologies, application design, and coding.

#### Course Outcomes: Students at the successful completion of the course will be able to:

CO1	Identify basic terms, tools and software related to android systems.(PO5)
CO <sub>2</sub>	Describe components of IDE, understand features of android development tools.(PO5)
CO <sub>3</sub>	Describe the layouts and controls and different views available.(PO5,PO7)
CO <sub>4</sub>	Understand Android system architecture and security model.(PO5)
CO <sub>5</sub>	Understand the features of services and able to publish android Application.(PO5,PO7)

#### Syllabus

**Course Details** 

Unit	Learning Units	Lecture Hours
Ι	Introduction to android, Open headset Alliance, Android ecosystem, Need of android, Features of android, Tools and Software required For developing an Application, Android architecture.	10
II	Operating system, java JDK, Android SDK, Android development tools, Android virtual devices, Steps to install and configure Android studio and sdk.	14
III	Control flow, directory structure, Components of a screen, Fundamental UI design, Linear layout, absolute layout, table layout, relative layout, Text view, Edit text, Button image button, radio button, toggle button, Radio group, checkbox, and progress bar, List view, grid view, image view, scroll view, Time and date picker	12
IV	Android platform services, Android system Architecture, Android Security model, Applications development: creating small application.	12
V	Introduction of MIT App Inventor, Application Coding, Programming Basics & Dialog, More Programming Basics, Alarm Clock Application, Audio & Video, Drawing Application, File, Game, Device Location, Web Browsing.	12

#### **References/ Text Book/ e-books/websites**

#### **Text Books:**

- 1. Erik Hellman, "AndroidProgramming-Pushing theLimits", 1stEdition, WileyIndiaPvtLtd, 2014.
- 2. App Inventor:create our own Android apps byWolber,David(DavidWayne)

#### **Reference Books:**

- 1. DawnGriffithsandDavidGriffiths, "HeadFirstAndroidDevelopment", 1stEdition, O'ReillySPDPu blishers, 2015.
- 2. JFDiMarzio, "BeginningAndroidProgrammingwithAndroidStudio", 4thEdition, WileyIndia PvtLtd, 2016.ISBN-13: 978-8126565580

#### Web resources:

https://www.udacity.com/course/developing-android-appsfundamentals--ud853-nd http://www.appinventor.mit.edu/

An Autonomous college within the jurisdiction of Krishna University A.P, India.

	(With Effect from Academic Year 2022-23)							
	COMPUTER SCIENCESECCAT032022-23B. Com (CA)							
	SEMESTER – V/VI	PAPER	– VI	Max. Marks 70				
	Syllabu	ıs: Mobile Applicat	ion Developr	nent				
	NO. Of. Hours: 3	NO. Of Credits: 3	5	Pass Marks 28				
		Section-	A					
Answe	er any Four questions.							
(At lea	ast 1 question should be given	from each Unit)		(4 x 5 = 20 Mark)				
1.	What is the Need of Android?(	(CO1,L1)						
2.	Explain the Steps to install and	l configure Android	studio and so	k.(CO2,L2)				
3.	What are the Components of a	screen?(CO3,L1)						
4.	What are the Android platform	1 services? $(CO4, LI)$	)					
5.	How to write Application Cod	ing (CO5,L1)		2)				
0.	Explain image button and radio	o button with an exa	imple.(CO3,L	(2)				
		Section-	<u>B</u>					
Answe	er all questions. (Two question	ns should be given	from each ur	nit with internal choice)				
				(5X10=50Marks				
9.	(a) Explain Android Architectu	re.(CO1,L2)						
		OR						
	(b) Write Features of Android.(	CO1,L1)						
10.	(a) Explain Android developme	ent tools.(CO2.L2)						
101	(m)	OR						
(	b) Explain Android virtual devi	ices.(CO2,L2)						
11.(	(a)Explain about Linear layout,	absolute layout, tab	le layout and	relative layout.(CO3,L2)				
(	(b) Discuss about List view, gri	d view, image view	scroll view.	CO3.L6)				
,	(0) 2 15 0 0 5 0 0 0 0 2 150 1 10 11, 81	- · · · · · · · · · · · · · · · · · · ·	,	000,20)				
12. (	(a) How to create a small applic	ation using Android	Application?	?(CO4,L6)				
		OR						
(	(b) Describe Android system An	rchitecture.(CO5,L6	i)					
13. (	(a)Explain Audio &Video Conc	cepts.(CO5,L2)						
	(h) Davalan Alarmalaskarria	$\mathbf{UK}$						
(	(b) Develop Alarni clock applic	ation.(CO3,L0)						
		***						

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2022-23)	3)	
--	----	--

COMPUTER SCIENCE	SECCAT03	2022-23	B. Com (C	<b>A</b> )		
SEMESTER – V/VI	PAPER – VI	Pass Marks	25 Ma	x Marks:50		
Lab List: MOBILE APPLICATION DEVELOPMENT LAB						
No. of Hours per week: 2	External: 25	Inte	ernal: 25	Credits: 2		
Course Outcomes: Students at th	he successful comp	letion of the c	ourse will be	e able to:		
CO1: Understand the andro CO2: Design and implement	oid platform.(PO5,I ntation of various n	PO7) nobile applicati	ions.(PO5,PC	)7)		
Practical (Laboratory) Syllabus:	:			(30 Periods)		
<ul> <li>Lab Exercises <ol> <li>Demonstrate mobile technol</li> <li>Demonstrate Android platfo</li> <li>Implement User interface de</li> <li>Working with texts, shapes,</li> <li>Develop a calculator applica</li> <li>Develop application in andro</li> <li>Implement an application th</li> <li>Develop audio and video dr</li> </ol> </li> <li>Lab References: <ol> <li>Erik Hellman, "Android Prog Ltd,2014.</li> <li>App Inventor:create your ow</li> </ol> </li> <li>Reference Materials on the Web/ <ol> <li>http://www.appinventor.mit</li> </ol> </li> </ul>	logies and devices. orm and application esign layouts. buttons and lists. ation. oid using different hat creates a alarm c rawing application. gramming–Pushing In Android apps by web purse/developing-an c.edu/	s overview. views. lock. theLimits",1st Wolber, David ndroid-appsfun	Edition,Wile (DavidWayı damentalsu	yIndiaPvt ne). 1d853-nd		

# A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

Vuyyuru-521165.NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* 

# Title of the Paper: CYBER SECURITY AND MALWARE ANALYSIS

#### Semester: V/VI

Course Code	SECCAT04	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022-23	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** This programme aims to provide a foundational platform for Cyber Security Aspirants by providing Cyber Security Awareness and Training that heighten the chances of catching a scam or attack before it is fully enacted, minimizing damage to the resources and ensuring the protection of information technology assets.

#### Course Outcomes: Students at the successful completion of the course will be able to:

CO1	Understand the computer networks, networking tools and cyber security.(PO6,PO7)
CO <sub>2</sub>	Learn about NIST Cyber Security Framework.(PO6,P07)
CO <sub>3</sub>	Understand the OWASP Vulnerabilities.(PO6, PO7)
CO <sub>4</sub>	Implement various Malware analysis tools.(PO6,P07)
CO <sub>5</sub>	Understand about Information Technology act2000.(PO6,P07)

#### **Syllabus**

**Course Details** 

Unit	Learning Units	Lecture Hours
I	Introduction to Networks & cyber security: Computer Network Basics, Computer network types, OSI Reference model, TCP/IP Protocol suite, Difference between OSI and TCP/IP, What is cyber, cyber- crime and cyber-security, All Layer wise attacks, Networking devices: router, bridge, switch, server, firewall, How to configure :router, How to create LAN, Network tools, IP scanner, Port scanner, Vulnerability scanner, Command tools— net stack ,trace route, lookup, tcp view.	13
II	<b>NISTN Cyber security framework</b> : Introduction to the components of the framework, Cyber security Framework Tiers, What is NIST Cyber security framework, Features of NIST Cyber security framework, Functions of NIST Cyber security framework, Turn the NIST Cyber security Frame work into Reality/implementing the framework.	12
III	<b>OWASP</b> : What is OWASP? OWASP Top10Vulnerabilities, Injection, Broken Authentication, Sensitive Data Exposure, XML External Entities (XXE), Broken Access Control, Security Misconfiguration, Cross-Site Scripting(XSS), Insecure Deserialization, Using Components with Known Vulnerabilities, Insufficient Logging and Monitoring, OWASP Juice Shop, Web application firewall.	13
IV	MALWARE ANALYSIS : What is malware, Types of malware, Key loggers, Trojans, Ransom ware, Root kits, Antivirus, Firewalls, Malware analysis, VMware, How to uses and box, How to create virtual machine, Process explorer, Process monitor, SYS-internals Suite, SOC-security operations controls-Solar winds (study the tools), Network intrusion detection, Wire shark, IDS, IPS, Snort.	12
V	<b>CYBER SECURITY Legal Perspectives :</b> Cyber crime and the legal landscape around the world, IndianITACT2000— CybercrimeandPunishments, Weak areas of ITACT2000, Challenges to Indian law and cybercrime scenario in India, Amendments of the Indian IT Act.	10

#### **References/ Text Book/ e-books/websites**

**TEXTBOOKS:** 

- 1. Computer Networks | Fifth Edition | By Pearson (6th Edition) | Tanenbaum, Feamster , Wetherall
- 2. Computer Networking | A Top-Down Approach | Sixth Edition | By Pearson | <u>KuroseJamesF.</u> <u>Ross Keith W.</u>
- 3. Cyber Securityby<u>SunitBelapure,NinaGodbole</u>|WileyPublications
- 4. TCP/IP ProtocolSuite |Mcgraw-hill|Forouzan|FourthEdition

#### **WEBSITEREFERENCES:**

- $1. \ \underline{https://csrc.nist.gov/Projects/cybersecurity-framework/nist-cybersecurity-framework-a-quick-start-projects/cybersecurity-framework/nist-cybersecurity-framework/nist-cybersecurity-framework-a-quick-start-projects/cybersecurity-framework/nist-cybersecurity-framework/nist-cybersecurity-framework-a-quick-start-projects/cybersecurity-framework/nist-cybersecurity-framework/nist-cybersecurity-framework-a-quick-start-projects/cybersecurity-framework/nist-cybersecurity-framework-a-quick-start-projects/cybersecurity-framework/nist-cybersecurity-framework/nist-cybersecurity-framework-a-quick-start-projects/cybersecurity-a-quick-start-projects/cybersecurity-a-quick-start-projects/cybersecurity-a-quick-start-projects/cybersecurity-a-quick-start-projects/cybersecurity-a-quick-start-projects/cybersecurity-a-quick-start-projects/cybersecurity-a-quick-start-projects/cybersecurity-a-quick-start-projects/cybersecurity-a-quick-start-projects/cybersecurity-a-quick-start-projects/cybersecurity-a-quick-start-projects/cybersecurity-a-quick-start-projects/cyb$
- 2. <u>https://owasp.org/www-project-top-ten/</u>
- 3. https://owasp.org/www-project-juice-shop/

COMPUTER SCIENCE	SECCAT04	2022-23	B.Sc.(MPCs)
SEMESTER – V/VI	PAI	PER – VII	Max. Marks 70
<u>Title:</u> CYBER S	SECURITY AND	MALWAR	EANALYSIS
No of Credits: 3 No.of	f.Hours:3		Pass Marks 28
Answer on y Four questions	Section-A	7	
<ul> <li>(At least 1 question should be give</li> <li>Discuss all Layer wise attacks.(</li> <li>Explain about Cyber, Cyber-Cri</li> <li>Explain Features of NIST Cyber</li> <li>Write about Web Application fin</li> <li>Discuss about Key loggers, Troj</li> <li>Explain Weak areas of IT ACT</li> </ul>	en from each Unit CO1,L6) ime and Cyber-Atta r Security framewo rewalls in OWASP jans, Root kits.(CO 2000.(CO5,12)	) cks.(CO1,L2 rk.(CO2,L2) .(CO3,L1) 4,L6)	(4X5=20Marks)
	Section-B		
Answer all questions. (Two quest	tions should be giv	en from each	unit with internal choice)
			(5x10=50Mark
a). Describe in detail TCP/IP Protoco	ol Suite with diagra <b>OR</b> rk Tools with exam	mmatic repre	esentation.(CO1,L6)
(a). Discuss about components of fr meworks.(CO2,L6)	amework and funct	tions of NIST	Cyber Security
(b). Explain how to turn NIST Cybe	or Security framewo	rk into reality	y framework. (CO2,L6)
(a). Explain OWASD Juice shop in a	detail. (CO3,L2) <b>OR</b>		
(b). Explain any 6 OWASP vulnerab	oilities.(CO3,L2)		
	Malwara analysis i	n detail. (CO	14,L6)
(a). Discuss about different types of	OR		
(a). Discuss about different types of (b). How to detect Network intrusio	on? Explain?(CO4,I	.1)	
(a). Discuss about different types of (b). How to detect Network intrusio (a). Explain what are the Challenges	OR on? Explain?(CO4,I are to Indian law a OR	L1) nd cybercrim	e scenario in India. (CO5,L
<ul> <li>(a). Discuss about different types of</li> <li>(b). How to detect Network intrusio</li> <li>(a). Explain what are the Challenges</li> <li>(b). Discuss Indian IT-ACT spectively.(CO5,L6)</li> </ul>	OR on? Explain?(CO4,I s are to Indian law a OR 2 2000.Explain	L1) nd cybercrim different	e scenario in India. (CO5,L Cybercrime and Puni

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2022-23)					
COMPUTER SCIENCE	SECCAT04	2022-23	B. COM(CA)		
SEMESTER – V/VI	PAPER – V	<b>II</b>	Max. Marks 50		

Lab List: MULTIMEDIA TOOLS AND APPLICATIONS LAB External: 40

No. of Hours per week: 3

Internal: 10

Credits: 2

(30 Periods).

# **Title : CYBER SECURITY AND MALWARE ANALYSYS LAB**

# I. Course Outcomes: Students at the successful completion of the course will be able to:

- CO1: Implement LAN by using a switch and Router.(PO5)
- CO2: Implement the task of creating mail messages by using fake mail id by using the
  - "Fake mailer" website.(PO5)
- CO3: Implement port scanning mechanism.(PO5)

CO4: Implement SOL Injection attack.(PO5)

CO5: Implement to access a locked computer.(PO5)

#### **II: Practical (Laboratory) Syllabus:**

#### Lab Exercises

The purpose of this course is to impart practical understanding on Cyber security and protection of electronic systems and information from malware attacks.

- 1. Configure LAN by using a switch
- 2. Configure a LAN by using Router
- 3. Steps to attack a victim computer by using "Pro Rat" Trojan tool
- 4. Perform the packet sniffing mechanism by download the "wire shark" tool and extract the packets
- 5. Perform the task of creating mail messages by using fake email id by using the "fake mailer" website(https://emkei.cz)
- 6. Perform the IP scanning mechanism by using "tracert" and "arp" commands
- 7. Perform the port scanning mechanism by using NMAP tool
- 8. Perform an SOL Injection attack and its preventive measure to avoid Injection attack
- 9. Perform an activity to access a locked computer without knowing the user's password.

#### **III. Lab References:**

- 1. Computer Networks | Fifth Edition | By Pearson (6th Edition) | Tanenbaum, Feamster & Wetherall
- 2. Computer Networking | A Top-Down Approach | Sixth Edition | By Pearson | KuroseJamesF. Ross Keith W.

#### IV. Reference Materials on the Web/web

1. https://csrc.nist.gov/Projects/cybersecurity-framework/nist-cybersecurity-framework-a-quick-startguide

https://owasp.org/www-project-top-ten/

# A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

Vuyyuru-521165.NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* 

#### **Title of the Paper: E – COMMERCE APPLICATION DEVELOPMENT**

#### Semester: V/VI

Course Code	SECCAT05	Course Delivery Method	Class Room / Blended Mode – Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022-23	Year of Revision:	Percentage of Revision: 0%

#### **Course Objective:**

To educate students in ecommerce and ecommerce applications.

Course Outcomes: Upon successful completion of the course, a student will be able to:

CO <sub>1</sub>	To apply in an integrative and summative fashion the students' knowledge in all fields of business studies by drafting a website presence plan.
CO2	To understand the factors needed in order to be a successful in ecommerce
CO3	To gain the skills to bring together knowledge gathered about the different components of building a web presence
CO4	To critically think about problems and issues that might pop up during the establishment of the web presence
CO5	To apply Word Press as a content management system (CMS), Plan their website by choosing color schemes, fonts, layouts, and more

#### **Syllabus**

#### **Course Details**

Unit	Learning Units	Lecture
		Hours
Ι	Introduction to E- commerce: Meaning and concept - E- commerce , E-	12
	commerce v/s Traditional Commerce , E- Business & E- Commerce - History of	
	E- Commerce, EDI - Importance, features & benefits of E- Commerce, Impacts,	
	Challenges & Limitations of E- Commerce	
II	Business models of E - Commerce: Business to Business , Business to customers	12
	,Customers to Customers , Business to Government , Business to Employee ,	
	Influencing factors of successful E- Commerce , Architectural framework of	
	Electronic Commerce , Web based E Commerce Architecture. Internet Commerce	
III	Electronic data Interchange , EDI Technology ,EDI- Communications , EDI Agreements , E– Commerce payment system. Digital Economy	12
IV	A Page on the web - HTML Basics, Client Side scripting -JAVA SCRIPT basics, Server side Scripting- PHP basics	12
V	Logging in to Your Word press Site , word press dash board , creating your first	12
	post, adding photos and images, creating hyper link, adding categories and tags	

#### **Textbooks:**

- 1. Turban, Rainer, and Potter, Introduction to E-Commerce, second edition, 2003
- 2. H. M. Deitel, P. J. Deitel and T. R. Nieto, E-Business and E-Commerce: How to Programe, Prentice hall, 2001
- 3. Word Press All-in-One For Dummies -written by Lisa Sabin Wilson with contributions by Michael Torbert, Andrea Rennick, Cory Miller, and Kevin Palmer

#### **Reference Books:**

- 1. Elias. M. Awad, "Electronic Commerce", Prentice-Hall of India Pvt Ltd.
- 2. Ravi Kalakota, Andrew B. Whinston, "Electronic Commerce-A Manager's guide", Addison-Wesley
- 3. https://w3cschools.com
- 4. David Whitely, E-Commerce: Strategy, Technologies and Applications, Tata McGraw Hill.

	MPUTER SCIENCE	SECCAT05	2022-23	<b>B.COM (CA)</b>
SEMI	ESTER – V/VI	PAPER	– VI	Max. Marks 70
	Model Paper: E – CO	MMERCE APPL	ICATION DI	EVELOPMENT
NO of	f Hours: 3	No Of Cre	edits: 3	Pass Marks 28
nswer al	ny Four of the following	SECTION	<u>- A</u>	
At least 1	question should be giv	en from each Unit	)	(4X5=20Marks)
<ol> <li>Differe</li> <li>Write a</li> <li>Write a</li> <li>Write a</li> <li>Write a</li> <li>Write a</li> <li>Briefly</li> <li>Discuss</li> </ol>	entiate e commerce vs. tra bout limitations of e con bout B2C. (CO2, L1) a short note on EDI. (CO2 write about CSS. (CO4, s about the need of word	aditional commerce nmerce (CO1, L6) 3, L1) L1) press. (CO5, L2)	. (CO1, L4)	
<b>Answer</b> <i>a</i> 9. (a) Exp	SECTION Lin about challenges of OR	<u>DN – B</u> ns E - Commerce.(CO	1, L1)	(5X10=50Mark
(b) Ex	plain about features and	benefits of E - Con	nmerce. (CO1	, L1)
10. (a) Sı	ummarize the influencing	g factors of successf	ful E - Comme	erce. (CO2, L2)
(b) Si	OR ummarize B2B. B2G Mo	odels. (CO2, L2)		
1 (a) Ex	nlein chout EDI commu	(CO2 I 1)		
1. (a) EX	OR	lication. (CO3, L1)		
(b) D	escribe about E – Comm	erce payment Syste	em. (CO3, L1)	
2. (a) Ex	plain about various HTM OR	IL tags. (CO4, L1)		
(b) Ex	xplain about server side s	cripting with examp	ole. (CO4, L1)	)
(0) 2	nlain about adding categ	ories and tags in wo	ord press. (CO	5, L2)
(c) <u>Ex</u>	OR			

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(Wit	h Effect from Acad	emic Year 2022	-23)
COMPUTER SCIENCE	SECCAT05	2022-23	B.COM (CA)
SEMESTER – V/VI	PAP	ER – VI	Max. Marks 50
Lab List: E – COM	MERCE APPLICA	<b>TION DEVEL</b>	OPMENT Lab
No. of Hours per week:3	External: 40	Internal:	10 Credits: 2
I. Course objectives:			

To educate students in developing commerce applications.

#### **Course outcomes**:

By the end of the course, students will be:

CO1: Able to design home page for an e commerce web application. (PO6, PO7)

CO2: Able to perform validation using PHP. (PO6, PO7)

CO3: Able to design catalogue. (PO6, PO7)

CO4: Able to implement access control mechanisms in web applications. (PO6, PO7)

CO5: Able to design application for any given e-commerce scenario. (PO6, PO7)

#### II: Practical (Laboratory) Syllabus: (30 Periods)

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 30 hours per semester.)

#### Case study of e –commerce

- 1. Home page design of web site
- 2. Validation using PHP
- 3. Implement Catalogue design
- 4. Implement Access control mechanism(eg: username and password)
- 5. Case study on business model of online E-Commerce store

**Note**: The list of experiments need not be restricted to the above list. Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.

#### A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE Vuyyuru-521165.NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* Title of the Paper: REAL TIME GOVERNANCE SYSTEM (RTGS)

#### Semester: V/VI

Course Code	SECCAT06	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022 - 23	Year of Revision:	Percentage of Revision: 0% (shuffled from 4 <sup>th</sup> to 3 <sup>rd</sup> sem)

#### **Course Objective:**

To educate students in terms of e governance, its infrastructure and implementation.

**Course Outcomes:** Upon successful completion of this course, students will have the knowledge and skills to:

CO <sub>1</sub>	Understand the terms regarding Governance, E-Governance and RTGS (PO6, PO7)
CO2	Learn about E-Governance Infrastructure (PO6, PO7)
CO3	Understand the E-Governance implementation in several countries (PO6, PO7)
CO4	Understand the E-Governance implementation in several Indian states (PO6, PO7)
CO5	Understand the applications of RTG (PO6, PO7)

#### Syllabus

**Course Details** 

Unit	Learning Units	Lecture Hours
I	<b>Introduction to E-Governance</b> Government, Governance and Good Governance, What is E-Governance or Electronic Governance? E-Government and E- Governance: A conceptual Analysis , Objectives , Components , application domains , four phase model , implementing E-Governance ,issues while implementing E-Governance , Opportunities and challenges . Types of E- Governance , What is Real-Time Governance (RTG) , Real Time Governance Society (RTGS)	12
II	<b>E-Governance Infrastructure</b> Data Systems infrastructure , Executive Information Systems , Management Information Systems , Knowledge Management Systems , Transaction Processing Systems . Legal Infrastructural preparedness , IT Act 2000 , Challenges to Indian law and cybercrime scenario in India , Amendments of the Indian IT Act . Institutional Infrastructural preparedness , Internet , intranet , extranet • Human Infrastructural preparedness , Top-level management , Middle-level management, Low-level management • Technological Infrastructural preparedness , Information and communications technology , Data Warehousing , Cloud Computing.	12
III	<b>E-Governance: Country Experience</b> INDIA ,US, UK ,AUSTRALIA , DUBAI	12
IV	E-Governance in India Andhra Pradesh , Karnataka , Kerala , Uttar Pradesh , Madhya Pradesh , West Bengal ,Gujarat UNIT 5: Latest Applications in Real Time Governance 10hrs Agriculture ,Rural Development ,Health care ,Education ,Tourism , Commerce and Trade	12
V	Latest Applications in Real Time Governance Agriculture ,Rural Development ,Health care ,Education ,Tourism , Commerce and Trade	12

#### III Textbooks:

1. E-Governance: concepts and case studies| CSR Prabhu| Prentice-Hall|

2. E-Governance| Niranjanpani, Sanhari Mishra | Himalaya Publishing House

#### Website References:

- 1. http://www.egov4dev.org/success/case/
- 2. https://vikaspedia.in/e-governance/resources-for-vles
- 3. https://altametrics.com/en/information-systems/information-system-types.html
- 4. <u>https://core.ap.gov.in/CMDashBoard/Index.aspx</u>

An	Autonomous college w (With I	ithin the jurisdiction Effect from Academi	n of Krishna c Year 2022	u University A.P, India. 2-23)
CO	MPUTER SCIENCE	SECCAT06	2022-23	B.Com.(C.A.)
SEM	ESTER – V/VI	PA	PER – VII	Max. Marks 70
No.o	Model Paper: RE f Hours:3	AL TIME GOVER	NANCE SY lits:3	STEM (RTGS) Pass Marks 28
		SECTION -	A	
Answer an (At least 1	y Four of the following question should be giv	g: en from each Unit)		(4X5=20Marks)
1. Discuss	the need of RTGS. (CC	01, L2)		
2. Write al	oout MIS. (CO2, L6)			
3. Describ	be the goals of e – gover	nance. (CO2,L1)		
4. Write a	short note on e – govern	ance in US. (CO3, L2	1)	
5. Describ	e implementation of e –	governance in Gujara	nt. (CO4, L1)	)
6. Discuss	about applications of R	TGS.(CO5, L2)		
Answer al	<u>SECTI</u> Il the following questio	<u>DN – B</u> ns		
9. (a) Expl (b) Exp	ain about types of e gov OR plain about objectives ar	ernance. (CO1, L1) ad components of e go	overnance. (0	( <b>5X10=50Marks</b> CO1, L1)
10. (a) Exp	plain about Indian IT AG	CT 2000 (CO2, L1)		
(b) Exp	plain about various level	s of management. (Co	02, L1)	
11. (a) Ex	xplain about E – governa	ance policy of India. (	CO3, L1)	
(b) Ex	OR plain about E – governa	nce policy of Austral	ia. (CO3, L1	)
12. (a) Exp	olain about E – Governa OR	nce policy of Andhra	Pradesh. (Co	D4, L1)
(b) Exp	plain about E – Governa	nce policy of Kerala.	(CO4, L1)	
13. (a) Exp	blain the role of real time OR	governance in agricu	lture sector.	(CO5, L1)
(b) Ex1	aloin the note of need time			

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2022-23)

COMPUTER SCIENCE	SECCAT06	2022-23	B.Com.(C.A.)		
SEMESTER – V/VI	PAPER – VII		Max. Marks 50		
LAB LIST <u>:</u> REAL TIME GOVERNANCE SYSTEM (RTGS) Lab					
No. of Hours per week: 2	External: 40	Internal: 10	Credits: 2		

#### I. Course objectives:

To educate students in developing e commerce applications.

#### **Course outcomes**:

By the end of the course, students will be:

CO1: Able to design home page for an e commerce web application. (PO6, PO7)

CO2: Able to perform validation using PHP. (PO6, PO7)

CO3: Able to design catalogue. (PO6, PO7)

CO4: Able to implement access control mechanisms in web applications. (PO6, PO7)

CO5: Able to design application for any given e-commerce scenario. (PO6, PO7)

#### II: Practical (Laboratory) Syllabus: (30 Periods)

(Since, the proposed SECs are connected to Computer Programming/Software Tools and Skill enhancement, the students need to get exposure on the syllabus content by practicing on the computer even though there is no formal assignment of credits and laboratory hours for practical sessions. So, as part of the Co-curricular activities and continuous assessment, students should be engaged in practicing on computer for at least 15 hours per semester.)

Note: Here the students have to gather the details in computer lab by surfing several websites & Google Search Engines and submit the report to the class/lab instructor before leaving the lab.

- 1. Write a Report on the role of Nationwide Networking in E-Governance
- 2. Write a Report on SETU: A Citizen Facilitation Centre in India, regarding it's successful or failure journey.
- 3. Write a Report on National Cyber Security Policy, how it is useful to Indian citizens.
- 4. Write a Report on mee-seva/Village Secretariat/Ward secretariat, a new paradigm in citizen services.
- 5. Write a Report on how Andhra Pradesh is implementing RTGS in Agriculture.
- 6. Write a Report on how Andhra Pradesh is implementing RTGS in social welfare schemes
- 7. Write a Report on how Andhra Pradesh is implementing RTGS in waste lands, agricultural lands and house properties.
- 8. Write a Report on Electronic Birth Registration in any one state of our country.

Note: The list of experiments need not be restricted to the above list. Detailed list of Programming/software tool based exercises can be prepared by the concerned faculty members.

# A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

Vuyyuru-521165.NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* 

#### Title of the Paper: MULTIMEDIA TOOLS AND APPLICATIONS

#### Semester: V/VI

Course Code	SECCAT07	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022 -23	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** Multimedia is a technology engaging variety of media .Multimedia is the collection of Text, audio, video, animation, and graphics. The concept of paperless society is effective with the invention of multimedia. Multimedia helps the user in providing information from different media on one platform. It's enhanced the concept of networking and resource sharing.

CO <sub>1</sub>	Gain knowledge on the concepts related to Multimedia.(PO5)
CO2	Understand the concepts like image data representation and color modes.(PO5)
CO3	Understand the different types of video signals and digital audio.(PO5)
CO4	Know about multimedia data compression types and audio compression standards (PO5)
CO5	Know about basic video compression techniques.(PO5,P07)

Course Outcomes: Students at the successful completion of the course will be able to:

#### Syllabus

**Course Details** 

Unit	Learning Units	Lecture Hours
Ι	Introduction to multimedia What is Multimedia?, Components of Multimedia System, Multimedia Research Topics and Projects, Multimedia and Hypermedia, Multimedia Authoring metaphors, Multimedia Production, Multimedia Presentation, Some Technical Design Issues, Automatic Authoring.	12
II	<ul> <li>Image Data Representations and color models</li> <li>Color science Human vision Image data types, Black &amp; white images-1-bit images (Binary image), 8 -bit (Gray -level images), Color images- 24-bit color images, 8-bit color images, Color models.</li> <li>Color science Human vision Image data types, Black &amp; white images-1-bit images (Binary image), 8 -bit (Gray -level images), Color images- 24-bit color images, 8-bit color images, Color models.</li> </ul>	12
III	<b>Fundamental concepts in video</b> Types of Video Signals- Analog Video, Digital Video, Basics of Digital Audio: What is Sound?, Digitization of Sound, Quantization and Transmission of Audio, Pulse code modulation, Differential coding of audio, Predictive coding, DPCM.	14
IV	Multimedia Data Compression Introduction- Basics of Information Theory, Lossless Compression Algorithms, Fix-Length Coding, Run-length coding, Differential coding, Dictionary-based coding, Variable Length Coding, Shannon-Fano Algorithm, Huffman Coding Algorithm. Audio Compression standards: Introduction, Psychoacoustics model, MPEG Audio	12
V	<b>Basic Video Compression Techniques</b> Introduction to Video compression, Video Compression with Motion Compensation, Video compression standard H.261, Video compression standard MPEG-1	10

#### 1. Text Books

Fundamentals of Multimedia by Ze-Nian Li & Mark S. Drew. Publisher: Prentice Hall

#### 2. Reference Books:

- 1. An introduction to digital multimedia by Savage, T. M. and Vogel, K. E. 2008.
- 2. Digital Multimedia by Nigel Chapman & Jenny Chapman. 2009.

#### **3. Reference Materials on the Web/web-links:**

https://www.tutorialspoint.com/multimedia https://ksuit342.wordpress.com/lectuers/

# AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.An Autonomous college within the jurisdiction of Krishna University A.P, India.<br/>(With Effect from Academic Year 2022-23)COMPUTER SCIENCESECCAT072022-23B.Com.(C.A.)

SEMESTER – V/VI PAPER – VI Max. Marks 70 **Model Paper:** Multimedia Tools and Applications NO of Hours: 3 No Of Credits: 3 Pass Marks 28 Section-A Answer any FIVE questions. (At least 1 question should be given from each Unit) (4 x 5=20Marks) 1. What is multimedia? Explain components of multimedia system. (CO1, L1) 2.Discuss multimedia production.(CO1, L6) 3. Explain 8-Bit(gray-level images).(CO2,L2) 4. What is sound? Explain digitization of sound. (CO3, L1) 5. Discuss Run-length coding. (CO4, L6) 6.Compare and contrast H.261 and MPEG-1. (CO5, L2) Section-B Answer all questions. (Two questions should be given from each unit with internal choice)  $(5 \times 10 = 50M)$ 9.(a) Discuss in detail about multimedia and hypermedia. (CO1, L6) OR (b) Explain about multimedia presentation. (CO1, L2) 10.(a) Discuss about 24-bit color images and 8-bit color images. (CO2, L6) OR (b) Explain Color models in images. (CO2, L2) 11.(a) Discuss about PCM(pulse code modulation). (CO3, L6) OR

(b) Explain High-Definition TV(HDTV). (CO3, L2)

12.(a) Discuss Huffman- coding algorithm. (CO4, L6)

#### OR

(b) Write about MPEG audio compression algorithm. (CO4, L1)

13.(a) Explain video compression based on motion compensation. (CO5, L2)

OR

(b) Write about Video compression standard H.261. (CO5,L1)

\*\*\*

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect fr	om Academic	Year	2022-23)	)
-----------------	-------------	------	----------	---

SEMESTER – V/VI

PAPER – VI

Max. Marks 50

# Lab List: MULTIMEDIA TOOLS AND APPLICATIONS LAB

No. of Hours per week: 3 External: 40 Internal: 10

Credits: 2 Pass Marks:30

# I. Course Outcomes:

Students at the successful completion of the course will be able to:

CO1: Create/modify a new image with open source applications such as GIMP. (PO5)

CO2: Manipulate images using graphic tools. (PO5)

CO3: Learn basic layer mask essentials. (PO5)

CO4: Compress audio and video files. (PO5, PO7)

CO5: Create a realistic shadow. (PO5)

# II: Practical (Laboratory) Syllabus: (30 Periods)

- 1. Editing images using GIMP
- 2. Improve the Quality of your Image in GIMP
- 3. Introduction to Layer Masks.
- 4. Create an impressive background in GIMP
- 5. Applying Shadow & Highlight effects in images
- 6. Black& white and color photo conversion.
- 8. Using File Seizer Software for Audio compression.
- 9. Using File seizer Software for Video compression.

# III. Lab References:

Fundamentals of Multimedia by Ze-Nian Li & Mark S. Drew. Publisher: Prentice Hall Reference Materials on the Web/web-links

https://ksuit342.wordpress.com/lectuers/

https://www.tutorialspoint.com/multimedia

#### A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE Vuyyuru-521165.NAAC reaccredited at 'A' level Autonomous -ISO 9001 – 2015 Certified Title of the Paper: DIGITAL IMAGING

#### Semester: V/VI

Course Code	SECCAT08	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	30
No. of Lecture Hours / Week	3	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2022-23	Year of Offering: 2022 -23	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** To introduce the concepts of image processing and basic analytical methods to be used in image processing. To familiarize students with image enhancement and restoration techniques, To explain different image compression techniques.

#### Course Outcomes: Students at the successful completion of the course will be able to:

CO1	Gain knowledge about Types of Graphics, Types of Objects, Types of video editing tools( <b>PO5</b> )
CO2	Show their skills in editing and altering photographs for through a basic understanding of the tool box. ( <b>PO5</b> )
CO3	Gain knowledge in using the layers. (PO5)
CO4	Gain knowledge in using the selection tools, repair tools.(PO5)
CO5	Gain knowledge in using selection tools, applying filters and can show their skills.( <b>PO5</b> )

#### Syllabus

#### **Course Details**

Unit	Learning Units	Lectu
		re Hours
Ι	Types of Graphics- Raster vs Vector Graphics ,Types of Objects - Audio formats, Video formats , Image formats , Text document formats, Types of video editing , Different color modes, Image Scanner- Types of Image Scanners	12
II	What is GIMP?, GIMP tool box window, Layers Dialog, Tool Options Dialog, Image window, Image window menus	12
III	<ul> <li>Improving Digital Photos - Opening files, Rescaling saving files, Cropping, Brightening &amp; Darkening 1 Rotating, Sharpening, Fixing Red Eye.</li> <li>Introduction to layers- What is layer?, Using layer to add text, Using move tool, Changing colors, Simple effects on layers, Linking layers together, Performing operations on layers, Using layers to copy and paste, Tour of layers dialog</li> </ul>	14
IV	<b>Drawing</b> - Drawing lines and curves , Changing colors and brushes, Erasing , Drawing rectangles, Circles and other shapes, Outlining and filling regions, Filling with patterns and gradients, Importing brushes or gradients or making your own. <b>Selection</b> : Working with selections, Select by color and fuzzy, Select Bezier paths, intelligent scissors tool, Modifying selections with selection modes.	12
V	<b>Erasing and Touching Up</b> : Dodge and burn tool, Smudging tool, Clone tool, Sharpening using convolve tool, Blurring with Gaussian Blur, Correcting Color Balance, Hue, Saturation, Color balance using curves and levels.	10
	Filters: Filters, Blur, Enhance, Distort, Noise Filters.	

#### **References/ Text Book/ e-books/websites**

**Textbook**: Beginning GIMP from Novice to professional by Akkana Peck, Second Edition, A press **Reference Materials on the Web/web-links**:

https://www.mygreatlearning.com/gimp/tutorials/gimp-introduction

(With Effect from Academic Vear 2022-23)
An Autonomous college within the jurisdiction of Krishna University A.P, India.
AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

	(vviui i	Effect If officiate and the second se	1 cai 2022	-23)
	COMPUTER SCIENCE	SECCAT08	2022-23	B.Com.(C.A.)
S	EMESTER – V/VI	PAPER – VI	[	Max. Marks 70
		<u>Model Paper:</u> Digital I	maging	
NO	) of Hours: 3	No Of Credits:	3	Pass Marks 28
		SECTION A		
Short An	swer Ouestions	SECTION - A	L	(5 x 5=25M)
Answer a	ny Four questions. (At leas	st 1 question should b	e given fro	m each Unit)
1. Explain	different types of image for	rmats.(CO1,L2)	0	,
2. Write sl	nort notes on Tool box in G	IMP.(CO2, L1)		
3. Explain	briefly about gradients in C	GIMP. (CO4, L2)		
<b>4.</b> Write sl	nort notes on clone tool in C	GIMP.( <b>CO5,L1</b> )		
<b>5.</b> Explain	rotating ,sharpening in GIN	MP.(CO3,L2)		
6. Describ	e different color modes in C	JIMP.( <b>CO1,L5</b> )		
		SECTION B		
Answer a	ll questions.			(5  x  10 = 50 M)
9(a) Desci	ibe the various color modes	s in GIMP with example	e.( CO1,L5	5)
		OR		
9(b) What	are various types of audio a	and video formats in GI	MP? Expla	in with example.(CO1,L1
10(a) Des	cribe image window menu i	n detail.( CO2, L5)		
	6	OR		
10(b) Exp	lain the window layers dialo	og in GIMP.(CO2, L2)		
11(a) Des	ribe Cropping-Brightening	and Darkening in GIM	P (CO3 L	5)
11(a) Des	The cropping brightening	OR	г.(соз, ц	5)
11(b) Exp	lain the steps to solve a fixe	d–red eye in GIMP.(C	<b>J3,L2</b> )	
., .		•	, .	
12(a) Exp	ain the working with select	ions in GIMP.( <b>CO4, L</b> 2	2)	
		OR		
12(b) Writ	e about filling with patterns	s and gradients.(CO4, I	.1)	
13(a) Des	cribe the steps involved in I	Dodge, Burn and Smuds	ging tool in	GIMP.( <b>CO5,L5</b> )
	1	OR		

13(b)Write about distort and noise filters in GIMP.(**CO5,L1**)

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2022-23)

COMPUTER SCIENCE	SECCAT08	2022-23	B. COM(CA)		
SEMESTER - V/VIPAPER - VII			Max. Marks 5		
Lab List: DIGITAL IMAGING LAB					
No. of Hours per week: 3	External: 40	Int	ternal: 10 Credits: 2		

#### I. Course Outcomes: Students at the successful completion of the course will be able to:

CO1:Students will gain a working knowledge of Photoshop (PO5)

CO2:Student will be able to show their skills in editing and altering photographs for through a basic

understanding of the tool bar. (PO5)

CO3:Student will gain knowledge in using the layers. (PO5)

CO4:Student will gain knowledge in using the selection tools, repair tools.(PO5,PO7)

CO5:Student will gain knowledge in using filters and can show their skills. (PO5)

#### II: Practical (Laboratory) Syllabus: (30 Periods)

- 1. Designing a Visiting card
- 2. Design Cover page of a book
- 3. Paper add for calling tenders
- 4. Passport photo design
- 5. Design a Pamphlet
- 6. Brochure designing
- 7. Titles designing
- 8. Custom shapes creation
- 9. Black & white and color photo conversion
- 10. Image size modification
- 11. Background changes
- 12. Texture and patterns designing
- 13. Filter effects & Eraser effects

## A.G & S.G.SIDDHARTHA DEGREE COLLEGE OFARTS & SCIENCE Vuyyuru-521165.NAAC reaccredited at 'A' level *Autonomous -ISO 9001 – 2015 Certified* Title of the Paper: <u>DATABASE MANAGEMENT SYSTEMS</u>

#### Semester: III

Course Code	CSCT37	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	25
No. of Lecture Hours / Week	4	Semester End Exam Marks	75
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2021	Year of Offering: 2021-22	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** The main objective of the database is **to ensure that data can be stored and retrieved easily and effectively**. It is a compilation of data (records) in a structured way. In a database, the information is stored in a tabular form where data may or may not interlinked.

#### **Course Outcomes:**

CO <sub>1</sub>	Understand database concepts and design. (PO5,P07)
CO2	Create databases using structured query language. (PO5, P07)
CO3	Apply data manipulation commands in SQL. (PO5, P07)
CO4	Learn the programming basics of PL/SQL. (PO5, P07)
CO5	Implementation of cursors in PL/SQL. (PO5, P07)

	Syllabus	
Unit	Learning Units	Lecture Hours
Ι	<b>Database Concepts-A Relational approach</b> : Database - Relationships - DBMS - Relational data model - Integrity rules - Theoretical relational languages. <b>Database Design</b> : Data modeling -Dependency - Database design - Normal forms - Dependency diagrams – Denormalization.	12
Π	<b>Structured Query Language (SQL):</b> Introduction – DDL - Naming rules and conventions - D a t a t ypes-Constraints- C reating a table- Displaying t able information - Altering an existing table – Dropping, renaming, and truncating table - Table types	12
III	<b>Working with tables</b> : DML - Adding a new Row/Record - Customized prompts - Updating and deleting an existing rows/records - Retrieving data from table - Arithmetic operations - Restricting data with WHERE clause - Sorting - Substitution variables - DEFINE command - CASE structure. <b>Functions and Grouping</b> : Built-in functions - Grouping data. <b>Joins and Views</b> : Join - join types- <b>Views</b> : Views - Creating a view - Removing a view - Altering a view.	12
IV	<b>PL/SQL:</b> Fundamentals - Block structure - comments - Data types – Other data types - Variable declaration - Assignment operation - Bind variables - Substitution variables - Printing. <b>Control Structures and Embedded SQL</b> : Control structures - Nested blocks - SQL in PL/SQL - Data manipulation - Transaction control statements	12
V	<b>PL/SQL Cursors and Exceptions</b> : Cursors - Implicit & explicit cursors and attributes - cursor FOR loops - SELECTFOR UPDATE - WHERE CURRENT OF Clause - cursor with parameters - Cursor variables - Exceptions - Types of exceptions - Records - Tables -Procedures - <u>Functions</u> -Triggers	12

#### Course Delivery method: Face-to-face / Blended

Course has focus on: Skill Development.

#### Websites of Interest:

- <u>https://www.tutorialspoint.com/dbms/index.htm</u>
- <u>https://www.tutorialspoint.com/plsql/index.htm</u>

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21) DATABASE MANAGEMENT SYSTEMS MODEL PAPER

CLAS	S: B.Sc. (MSCS, MCCS, MPCS)	Max. Marks: 75M Min Pass: 30M
Semes	ter: III	Time: 3 Hours
	SECTION – A	
ANSV	VER ANY <u>FIVE</u> QUESTIONS	(5 X 5 =25 M).
1.	Define the following terms:	
	1.Entity.2.Entity set.3.Attribute.4.Tuple.5Key.	(CO1,L2)
2.	What are the integrity rules of the relational model?	(CO1,L2)
3.	Describe the naming rules and conventions of SQL.	(CO2,L2)
4.	List out data types of SQL with a brief description.	(CO2,L2)
5.	Explain about WHERE clause.	(CO3,L2)
6.	How to add a record in to table. List various methods.	(CO3,L3)
7.	Explain the PL/SQL block structure.	(CO4,L2)
8.	What is the purpose of a Trigger? Give any example.	(CO5,L2)
	SECTION – B	
ANSV	VER ALL THE QUESTIONS	5 X 10 =50 M.
9.	a) Explain about Normal forms with examples.	(CO1, L2)
	(Or)	
	b) What are different types of keys? What is their use?	(CO1, L2)
10.	a) How to enforce different types of constraints on tables?	(CO2,L2)
	(or)	
	b) Write a SQL query to create the following tables with th	e following fields and
		-

constraints and insert 5 records in each table in oracle.

Deptno	Number	Primary key
Dname	Varchar	
Loc	varchar	

Empno	Number	Primary key
Ename	Varchar	Should not null
Job	Varchar	
Hiredate	Date	Default system date
Mgr	Number	Foreign key to empno
Sal	Floating point	Should not exceed one lakh
	number	
Comm	Floating point	
	number	
Deptno	Number	Foreign key to deptno in
		dept table

Insert 5 records into each table (CO2,L3)

11. a)Give a brief description about joins and explain types of joins with examples. (CO3,L3)

(or)

b) What are the various types of functions available in Oracle? List and explain at least 4 from each category. (CO3,L3)

12. a) Explain about the control structures in PL/SQL. (CO4,L2)

(or)

- b) How to manipulate (insert/update/delete) the data in PL/SQL? (CO4,L2)
- 13. a) Differentiate between implicit and explicit cursors with examples. (CO5, L3)

(or)

b) Explain about built in exceptions in Oracle. (CO5,L2)

#### AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU. An Autonomous college within the jurisdiction of Krishna University A.P, India. (With Effect from Academic Year 2020-21)

	DATABASE MANAGEMENT SYSTEMS			
	COMPUTER SCIENCE	CSCP36	2022-23	B.Sc.(MPCS,MCCs, MSCS)
Year	of Introduction: 2021		, Y	Year of offering: 2021
Seme	ster: III		C	credits: 1
Hour	rs Taught: 30 hrs. Per Semeste	r	Ν	fax.Time: 3 Hours
Cour	se Prerequisites (if any): Bas	sic knowledge in co	mputers and in	nternet concepts.
Cour	se Description: This course for	ocuses towards Data	abase System	Concepts and Architecture, ER
mode	ls, relational algebra relational	calculus, SQL and	PL/SQL.	
Cour	se Objectives:			
1.	Enhance the knowledge and	understanding of D	atabase conce	pts and design.
2.	Enhance the knowledge of the	ne processes of Data	abase Develop	ment using SQL
3.	Enhance the knowledge of the	ne processes of Data	abase manipul	ation using SQL
4.	Develop efficient PL/SQL p	rograms to access (	Dracle database	28
Cour	se Outcomes: At the end of th	is course, students	should be able	to:
C	O1: Understand database con	cepts and design. (	PO5, P07)	
С	O2: Create databases using s	tructured query lan	guage. (PO5, I	207)
С	O3: Apply data manipulation	commands in SQL	(PO5, P07)	
С	O4: Learn the programming l	pasics of PL/SQL. (	PO5, P07)	
C	<b>O5: Implementation</b> of curso	rs in PL/SQL. (PO:	5, P07)	
		ТАДТ	тет	
1	Using Different operators	LAD L	<u>151</u>	
2.	Using Control Structures			

- 3. Implement Built-in functions
- 4. Implement update and Alter table
- 5. Implementing PL/SQL Block
- 6. Implement PL/SQL table and record
- 7. Using Functions
- 8. Using Cursors
- 9. Using Triggers

@@@@

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)

# Title of the Paper: Problem solving in C Semester: III

#### CLASS B.Com(E-Commerce- Computers)

Course Code	CSCT11B	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	25
No. of Lecture Hours / Week	4	Semester End Exam Marks	75
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%

#### **Course Objective**

This course aims to provide exposure to problem-solving through programming and introduce the concepts of the C Programming language.

#### **Course Learning Outcomes:**

Course	Upon successful completion of the course, a student will be able to:	Program
Outcome No		Outcome No.
CO1	Understand the evolution & functionality of Digital Computers and develop	PO1, PO7, PSO1,
	an algorithm for solving a given problem.	PSO4
CO2	Understand tokens and control structures in C.	PO1, PO7, PSO1,
		PSO4
CO3	Understand arrays and strings and implement them.	PO1, PO7, PSO1,
		PSO4
CO4	Understand the right way of using functions, pointers, structures and unions	PO1, PO7, PSO1,
	in C	PSO4
CO5	Develop and test programs written in C files	PO1, PO7, PSO1,
		PSO4

#### UNIT I

#### 12 periods

**General Fundamentals:** Introduction to computers: Block diagram of a computer, characteristics and limitations of computers, applications of computers, types of computers, computer generations.

**Introduction to Algorithms and Programming Languages:** Algorithm – Key features of Algorithms, Flow Charts, Programming Languages – Generations of Programming Languages – Structured Programming Language-Design and Implementation of Correct, Efficient and Maintainable Programs.

#### UNIT II

#### 12 periods

**Introduction to C:** Introduction – Structure of C Program – Writing the first C Program – File used in C Program – Compiling and Executing C Programs – Using Comments –

Keywords – Identifiers – Basic Data Types in C – Variables – Constants – I/O Statements in C- Operators in C- Programming Examples.

Decision Control and Looping Statements: Introduction to Decision Control Statements– Conditional Branching Statements – Iterative Statements – Nested Loops – Break and Continue Statement – goto Statement. UNIT III 10 periods

**Arrays**: Introduction – Declaration of Arrays – Accessing elements of the Array – Storing Values in Array– Operations on Arrays – one dimensional, two dimensional and multi-dimensional arrays, character handling and strings.

#### UNIT IV

14 periods

**Functions**: Introduction – using functions – Function declaration/ prototype – Function definition – function call – return statement – Passing parameters – Scope of variables – Storage Classes – Recursive functions.

**Structure, Union, and Enumerated Data Types:** Introduction – Nested Structures – Arrays of Structures – Structures and Functions– Union – Arrays of Unions Variables – Unions inside Structures – Enumerated Data Types.

#### **UNIT V**

#### 12 periods

**Pointers:** Understanding Computer Memory – Introduction to Pointers – declaring Pointer Variables – Pointer Expressions and Pointer Arithmetic – Null Pointers - Passing Arguments to Functions using Pointer – Pointer and Arrays – Memory Allocation in C Programs – Memory Usage – Dynamic Memory Allocation – Drawbacks of Pointers

**Files:** Introduction to Files – Using Files in C – Reading Data from Files – Writing Data to Files – Detecting the End-of-file – Error Handling during File Operations – Accepting Command Line Arguments.

#### BOOKS

1. E Balagurusamy - Programming in ANSIC - Tata McGraw-Hill publications.

- 2. Brain W Kernighan and Dennis M Ritchie The 'C' Programming language" Pearson publications.
- 3. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publications.
- 4. YashavantKanetkar Let Us 'C' BPB Publications.

#### **RECOMMENDED CO-CURRICULAR ACTIVITIES:**

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

#### A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)

2. Student seminars (on topics of the syllabus and related aspects (individual activity))

3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))

4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity

#### B. General

1. Group Discussion

2. Try to solve MCQ's available online.

3. Others

#### **RECOMMENDED CONTINUOUS ASSESSMENT METHODS:**

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),

- 2. Closed-book and open-book tests,
- 3. Problem-solving exercises,
- 4. Practical assignments and laboratory reports,
- 5. Observation of practical skills,
- 6. Individual and group project reports like "Creating Text Editor in C".
- 7. Efficient delivery using seminar presentations,
- 8. Viva voce interviews.

9. Computerized adaptive testing, literature surveys and evaluations,

10. Peers and self-assessment, outputs form individual and collaborative work

@@@@@
(With Effect from Academic Year 2022-23)

TITLE: Problem solving in C CLASS B.Com(E-Commerce-Computers) TIME: 3 Hrs.

MODEL Question Paper: COURSE CODE: CSCT11B S) SEMESTER: III

MAX: 75M

## ANSWER ANY **<u>FIVE</u>** QUESTIONS

5 X 5 =25 M.

1. What is a flowchart? Utilize flowchart symbols and draw a flowchart to find biggest of two numbers. (CO1, L3)

**SECTION –**A

- 2. Write a short note on block diagram of computers. (CO1, L2)
- 3. Explain do...while loop with an example program. (CO2, L2)
- 4. Develop a C program to find largest number in a given integer list. (CO3,L3)
- 5. Classify data types in C. Write a short note on any two data types. (CO2, L2)
- 6. How to declare and initialize 1D arrays. (CO3, L1)
- 7. Construct a student structure to accept student details and write a C program to calculate grade of a student. (CO4, L3)
- 8. Illustrate command line arguments with an example program. (CO5, L2)

## **SECTION – B**

## ANSWER ALL THE QUESTIONS

5 X 10 =50 M.

9 A) Define Algorithm. Demonstrate Key features of algorithm with examples. (CO1, L2)

(or)

B) List out the characteristics and limitations of computers. (CO1, L1)

10 A) Give Classification of Control statements in C. Explain multi-way decision making statements in C with examples. (CO2, L2)

(or)

B) Write a program to check whether the given number is Armstrong or not. (CO2, L3)

11 A) Develop a program in C for matrix multiplication. (CO3, L3)

#### (or)

- **B**) Demonstrate various String handling functions in C with examples. (CO3, L2)
- 12 A) Compare and contrast structures with unions. (CO4, L4)

(or)

B) Explain the types of functions in C. (CO4, L2)

13 A) List different file handling functions in C. Explain with examples. (CO5, L2)

(or)

B) Explain call by value and call by reference with example. (CO4, L2)

(With Effect from Academic Year 2022-23)

MODEL Question Paper:

## TITLE: Problem solving in C CLASS B.Com(E-Commerce-Computers) TIME: 3 Hrs.

# COURSE CODE: CSCT11B SEMESTER: III

**MAX: 75M** 

## **SECTION-A**

## ANSWER ANY FIVE QUESTIONS

- 1. Unit 1
- 2. Unit 1
- 3. Unit 2
- 4. Unit 3
- 5. Unit 2
- 6. Unit 3
- 7. Unit 4
- 8. Unit 5

9

10

## **ANSWER ALL THE QUESTIONS**

- A) Unit 1. (or)
  - B) Unit 1. A) Unit 2.
- (or)
- B) Unit 2.
- 11 A) Unit 3. (or)
- B) Unit 3.
- 12 A) Unit 4. (or)
  - B) Unit 4.
- 13 A) Unit 5.
  - (or)
    - B) Unit 5.

# SECTION – B

5 X 10 = 50 M.

5X5=25M

(With Effect from Academic Tear 2022 25)				
Semester III	Course	Course	Credits	Prds
	Code	Title		
B.Com.(E-Commerce-	CSCP11B	Problem Solving	1	30
Computers)		in CLab		
-				

(With Effect from Academic Year 2022-23)

Course Outcome No	Upon successful completion of this course, students should have the knowledge and skills to:	Program Outcome No
CO1	Apply logical skills to analyse a given problem	PO1, PO7, PSO1, PSO4, PSO2
CO2	Design an algorithmic solution for a given problem	PO1, PO7, PSO1, PSO4, PSO2
CO3	Write a maintainable C program according to coding standards for a given algorithm	PO1, PO7, PSO1, PSO4, PSO2
CO4	Debug a given program	PO1, PO7, PSO1, PSO4, PSO2
CO5	Execute the C program	PO1, PO7, PSO1, PSO4, PSO2

# Experiments List

#### Cycle-I

## Week 1:

Write a C program to check whether the given two numbers are equal, bigger or smaller? Week 2:

Write a C program to perform arithmetic operations using Switch...case? **Week 3:** 

- Write a program to find the sum of individual digits of a positive integer.
- Write a program to check whether the given number is Armstrong or not.

## Week 4:

Write a program to generate the first N terms of the Fibonacci sequence.

## Week 5:

Write a program to find both the largest and smallest number in a list of integer values **Week 6:** 

- Write a program that uses functions to add two matrices.
- Write a program for multiplication of two n X n matrices.

## Week 7:

Write a program to demonstrate refection of parameters in swapping of two integer values using Call by Value& Call by Address.

## Week 8:

Write a program to calculate factorial of given integer value using recursive functions.

Week 9:

Write a program to search an element in a given list of values.

Week 10:

Write a program to illustrate pointer arithmetic.

Week 11:

Write a program to sort a given list of integers in ascending order.

Week 12:

Write a program to calculate the salaries of all employees using Employee (ID, Name, Designation, Basic Pay, DA, HRA, Gross Salary, Deduction, Net Salary) structure.

a. DA is 30 % of Basic Pay

b. HRA is 15% of Basic Pay

c. Deduction is 10% of (Basic Pay + DA)

- d. Gross Salary = Basic Pay + DA+ HRA
- e. Net Salary = Gross Salary Deduction

Week 13:

Write a program to perform various string operations.

Week 14:

Write a program to read the data character by character from a file.

## Week 15:

Write a program to create Book (ISBN, Title, Author, Price, Pages, Publisher) structure and store book details in a file and perform the following operations

- a. Add book details
- b. Search a book details for a given ISBN and display book details, if available
- c. Update a book details using ISBN
- d. Delete book details for a given ISBN and display list of remaining Books.

@@@@

## A.G & S.G.SIDDHARTHA DEGREE COLLEGE OFARTS & SCIENCE

Vuyyuru-521165.NAAC reaccredited at 'A' level

## Autonomous -ISO 9001 – 2015 Certified

Title of the Paper PROGRAMMING WITH C & C++

#### Semester: III

Course Code	CABT31A	Course Delivery Method	Class Room / Blended Mode - Both
Credits	3	CIA Marks	25
No. of Lecture Hours / Week	4	Semester End Exam Marks	75
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2021	Year of Offering: 2021-22	Year of Revision:	Percentage of Revision: 0%

**Course Objective:** To learn the fundamental programming concepts and methodologies which are essential to building good C/C++ programs.

#### **Course Outcomes:**

CO <sub>1</sub>	To understand the meaning and generations of a programming language and to learn about c tokens.(PO5, PO7)
CO2	To learn about operators and conditional statements in C. (PO5, PO7)
CO3	To Gain knowledge about functions and to learn how to work with arrays- knowledge about strings and its functions. (PO5, PO7)
CO4	To learn about the concepts of structures and unions. (PO5, PO7)
CO5	To understand about Object-Oriented Programming concepts using CPP (PO5, PO7)

	Syllabus	
Unit	Learning Units	Lecture Hours
Ι	<b>INTRODUCTION TO CLANGUAGE, VARIABLES, DATA TYPES</b> <b>Introduction:</b> Introduction to Programming languages and Generations of Programming languages, Structure of C Program, Writing the first C Program, Files used in C Program, Compiling and Executing C- Programs, Using Comments, Keywords, Identifiers, Basic Data Types in C, Variables- Numeric, Character, Declaring, Initializing, Constants- Integer, Float, Character, String Declaring constants, I/O Statements in C- Formatting I/O, Printf (), scanf ().	10
П	<ul> <li>Operators:</li> <li>Operator and its types in C - Arithmetic, Relational, Equality, Logical, Unary, Conditional, Bitwise, Assignment, Comma, Size of.</li> <li>WORKING WITH CONTROL STATEMENTS, LOOPS:</li> <li>Introduction to Decision Control Statements , Conditional Branching Statements – If, If-Else, If-Else-if, Switch Case, Iterative or Looping Statements – While, Do-While, For , Break and Continue Statement , Go to Statement</li> </ul>	10
III	FUNCTIONS, ARRAYS         Functions       :         Introduction, Using Functions, Function declaration/prototype, Function Definition, Function Call, Scope of variables.         Arrays :         Introduction, Declaration of Arrays, Accessing elements of the Array, One dimensional array declaration and initialization with example, Two-dimensional array declaration and initialization with examples.	15
IV	<b>STRINGS:</b> Introduction to strings and string handling functions <b>Structures &amp; Unions:</b> Introduction to structures, Structure Declaration, Typedef, Initialization, accessing the members of a structure, Nested structures, Arrays of structures, Unions – Declaring, Accessing and Initialization, Differences between Structures and Unions.	12
V	OBJECT ORIENTED CONCEPTS USING C++ Introduction to Object Oriented Programming, Object Oriented Concepts, Class-Object- Inheritance-Polymorphism- Encapsulation-Abstraction, Structure of C++ program, Differences between C & CPP, Input and output statements in CPP. Operators & Data types: Operators in CPP, Data types in CPP, Operator Overloading	13

Т	Text Books:				
	Author	Title	Publisher		
1	Reema Thareja	Introduction to C programming	Oxford University Press		
2	E. Balagurusamy	Objected Oriented Programming with C++	McGraw Hill.		

R	Reference Text Books:				
	Author	Title	Publisher		
1	E Balagurusamy	Computing Fundamentals & C Programming	Tata McGraw-Hill, 2008		
2	Ashok N Kamthane	Programming with ANSI and Turbo C	Pearson Publisher, 2002.		
3	Y.Kanetkar	Let Us C++:	BPB		

#### MODEL PAPER

CLASS: B. Com (C.A)	Max. Marks: 75M
Course Code: CABT	Min. Pass: 30M
Semester: III	Time: 3 Hours
Section A	
Answer any Five of the following	5*5=25M
1. Explain the structure of a C Program. (CO1, L2)	
2. Explain the working of go-to statement with example program (CO2, L2)	
3. List in detail about the concept of scope of variables. (CO3, L1)	
4. Define Union concept in C with example program? (CO4, L1)	
5. Explain a) Encapsulation b) Abstraction concepts in CPP. (CO5, L2)	
6. Demonstrate a C Program to sort the given numbers in an array. (CO3, L2)	
7. Explain different types of files used in C Program. (CO1, L2)	
8. Comparison between while and do-while statements. (CO2, L2)	
Section B	
Answer the following	5*10=50M
9. a) Explain variables and constants in C with a detailed account of types of v	ariables and
constants. (CO1, L2)	
(or)	
b) Explain in detail about generations of programming languages. (CO1, L2	)
10. a) Explain looping statements in C with example programs. (CO2, L2)	
(or)	
b) Explain different types of operators in C language. (CO2, L2)	
11. a) What is a one-dimensional array with an example program. (CO3, L1)	
(or)	
b) What is a function? Explain function declaration, function definition and f an example program (CO3, L1)	unction calling with
12. a) List any five string handling functions with syntaxes and example program	ns. (CO4, L1)
b) Define array of structures in detail with an example program. (CO4, L1)	
13. a) Explain structure of a C++ program in detail. (CO5, L2)	
b) Comparison between C and C++ $(CO5, L2)$	
c) Explain the concept of operator overloading in C++ with example. (CO5, L2)	

Max.Time: 3 Hours

	COMPUTER SCIENCE	CABP	2022-23	B. Com (Computer Applications)
Semes	ster: III		C	redits: 1

Hours Taught: 30 hrs. Per Semester

## **Course Objective:**

The purpose of this course is to introduce students to the field of programming using C language and CPP. The students will be able to enhance their analyzing and programming skills and use the same for writing their own programs in C language and Using classes in CPP language.

**Course Outcomes:** At the end of this course the student is able toCO1:Use various operators in C programming

CO2:Implement decision and looping control statements

CO3:Passing parameters to functions & Accessing elements of an array and creation of one dimensional and two-dimensional arrays.

.CO4:Implementing string functions and structures, unions

conceptsCO5:Implement basic OOP concepts in CPP.

## LAB LIST

- **1.** Write a C program to calculate the expression: ((a\*b)/c)+(a+b+c)
- **2.** Write a C program to calculate (a+b+c)3
- 3. Write a C program to convert temperature from
  - a) Celsius to Fahrenheit
  - b) Fahrenheit to Celsius
- 4. Write a C program to calculate compound Interest
- 5. Write a C program to find biggest of three numbers
- 6. Write a C program to read student marks in five subjects and calculate total and average
- 7. Write a C program to convert hours into seconds
- 8. Write a C program to display number of days in given month using switch case
- 9. Write a C program to find biggest of two numbers using switch case
- 10 Write a C program to find whether the given number is prime or not
- 11 Write a C program to check whether the given string is palindrome or

not12 Write a C program to find the reverse of a given number using

- functions 13 Write a C program to swap two numbers using functions
- 14. Write a C program to sort the given numbers in an array
- 15. Write a C program to perform addition of two matrices
- 16. Write a C program to display student details using structures
- 17. Write a CPP program to find addition of three numbers using classes
- 18. Write a CPP program to find biggest of three numbers using classes
- 19. Write a CPP program to find whether a person is eligible to vote or not using classes
- 20. Write a CPP program to implement operator overloading concept

@@@@@

## **Title of the Paper: Problem solving in C** Semester: I

## SECTIONS: B.Sc. (MPCS / MCCS/ MSCS)

Course Code	CSCT11B	Course Delivery Method	Class Room / Blended Mode - Both
Credits	4	CIA Marks	30
No. of Lecture Hours / Week	4	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision: Nil	Percentage of Revision: 0%

## **Course Objective**

This course aims to provide exposure to problem-solving through programming and introduce the concepts of the C Programming language.

#### **Course Learning Outcomes:**

Course	Upon successful completion of the course, a student will be able to:	Program
<b>Outcome No</b>		Outcome No.
CO1	Understand the evolution & functionality of Digital Computers and develop	PO1, PO7, PSO1,
	an algorithm for solving a given problem.	PSO4
CO2	Understand tokens and control structures in C.	PO1, PO7, PSO1,
		PSO4
CO3	Understand arrays and strings and implement them.	PO1, PO7, PSO1,
		PSO4
CO4	Understand the right way of using functions, pointers, structures and unions	PO1, PO7, PSO1,
	in C	PSO4
<b>CO5</b>	Develop and test programs written in C files	PO1, PO7, PSO1,
		PSO4

#### 12 periods

General Fundamentals: Introduction to computers: Block diagram of a computer, characteristics and limitations of computers, applications of computers, types of computers, computer generations.

Introduction to Algorithms and Programming Languages: Algorithm – Key features of Algorithms, Flow Charts, Programming Languages – Generations of Programming Languages – Structured Programming Language- Design and Implementation of Correct, Efficient and Maintainable Programs. 12 periods

#### **UNIT II**

Introduction to C: Introduction – Structure of C Program – Writing the first C Program –File used in C Program – Compiling and Executing C Programs - Using Comments -

Keywords - Identifiers - Basic Data Types in C - Variables - Constants - I/O Statements in C- Operators in C-Programming Examples.

Decision Control and Looping Statements: Introduction to Decision Control Statements- Conditional Branching Statements - Iterative Statements - Nested Loops - Break and Continue Statement - goto Statement.

#### **UNIT III**

Introduction - Declaration of Arrays - Accessing elements of the Array - Storing Values in Array- Operations on Arrays - one dimensional, two dimensional and multi-dimensional arrays, character handling and strings.

#### **UNIT IV**

Introduction – using functions – Function declaration/ prototype – Function definition – function call – return statement – Passing parameters - Scope of variables - Storage Classes - Recursive functions.

Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Arrays of Structures – Structures and Functions– Union – Arrays of Unions Variables – Unions inside Structures – Enumerated Data Types.

## UNIT V

#### 12 periods

Pointers: Understanding Computer Memory – Introduction to Pointers – declaring Pointer Variables – Pointer Expressions and Pointer Arithmetic - Null Pointers - Passing Arguments to Functions using Pointer - Pointer and Arrays - Memory Allocation in C Programs - Memory Usage - Dynamic Memory Allocation - Drawbacks of Pointers

Files: Introduction to Files – Using Files in C – Reading Data from Files – Writing Data to Files – Detecting the End-offile – Error Handling during File Operations – Accepting Command Line Arguments.

#### BOOKS

1. E Balagurusamy – Programming in ANSIC – Tata McGraw-Hill publications.

2. Brain W Kernighan and Dennis M Ritchie - The 'C' Programming language" - Pearson publications.

3. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publications.

## 4. YashavantKanetkar - Let Us 'C' – BPB Publications.

## **RECOMMENDED CO-CURRICULAR ACTIVITIES:**

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

## <u>A. Measurable</u>

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)

2. Student seminars (on topics of the syllabus and related aspects (individual activity))

3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))

4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity

## **B.** General

## 1. Group Discussion

2. Try to solve MCQ's available online.

#### 3. Others

## **RECOMMENDED CONTINUOUS ASSESSMENT METHODS:**

Some of the following suggested assessment methodologies could be adopted;

- 1. The oral and written examinations (Scheduled and surprise tests),
- 2. Closed-book and open-book tests,
- 3. Problem-solving exercises,
- 4. Practical assignments and laboratory reports,
- 5. Observation of practical skills,
- 6. Individual and group project reports like "Creating Text Editor in C".
- 7. Efficient delivery using seminar presentations,
- 8. Viva voce interviews.
- 9. Computerized adaptive testing, literature surveys and evaluations,
- 10. Peers and self-assessment, outputs form individual and collaborative work

#### UNIT I

# 10 periods Arrays:

**14 periods Functions**:

**BLUE PRINT** 

**TITLE:** Problem solving in C SECTIONS: B.Sc. (MPCS / MCCS / MSCS) TIME: 3 Hrs.

**COURSE CODE: CSCT11B SEMESTER: I MAX: 70M** 

## **SECTION-A**

#### **ANSWER ALL QUESTIONS**

5X14=70M

- 1. a. Unit 1(10M) b. Unit 1(4M) OR c. Unit 1(10M) d. Unit 1(4M) 2. a. Unit 2(10M) b. Unit 2(4M) OR c. Unit 2(10M) d. Unit 2(4M) 3. a. Unit 3(10M) b. Unit 3(4M) OR c. Unit 3(10M) d. Unit 3(4M) 4. a. Unit 4(10M) b. Unit (4M) OR c. Unit 4(10M) d. Unit 4(4M) 5. a. Unit 5(10M) b. Unit 5(4M) OR c. Unit 5(10M)

  - d. Unit 5(4M)

(With Effect from Academic Tear 2021-22)					
Semester I	Credits	Prds			
B.Sc.(MPCS / MCCS/ MSCS)	CSCP11B	Problem Solving in C		30	
		Lab	1		

Course Outcome No	Upon successful completion of this course, students should have the knowledge and skills to:	Program Outcome No
CO1	Apply logical skills to analyse a given problem	PO1, PO7, PSO1, PSO4, PSO2
CO2	Design an algorithmic solution for a given problem	PO1, PO7, PSO1, PSO4, PSO2
CO3	Write a maintainable C program according to coding standards for a given algorithm	PO1, PO7, PSO1, PSO4, PSO2
CO4	Debug a given program	PO1, PO7, PSO1, PSO4, PSO2
CO5	Execute the C program	PO1, PO7, PSO1, PSO4, PSO2

## Experiments List Cycle-I

Week 1:

Write a C program to check whether the given two numbers are equal, bigger or smaller? **Week 2:** 

Write a C program to perform arithmetic operations using Switch...case?

Week 3:

- Write a program to find the sum of individual digits of a positive integer.
- Write a program to check whether the given number is Armstrong or not.

## Week 4:

Write a program to generate the first N terms of the Fibonacci sequence.

Week 5:

Write a program to find both the largest and smallest number in a list of integer values **Week 6**:

- Write a program that uses functions to add two matrices.
- Write a program for multiplication of two n X n matrices.

## Week 7:

Write a program to demonstrate refection of parameters in swapping of two integer values using Call by Value& Call by Address.

## Week 8:

Write a program to calculate factorial of given integer value using recursive functions.

## Cycle-II

Week 9:

Write a program to search an element in a given list of values.

Week 10:

Write a program to illustrate pointer arithmetic.

Week 11:

Write a program to sort a given list of integers in ascending order.

## Week 12:

Write a program to calculate the salaries of all employees using Employee (ID, Name, Designation, Basic Pay, DA, HRA, Gross Salary, Deduction, Net Salary) structure.

- a. DA is 30 % of Basic Pay
- b. HRA is 15% of Basic Pay
- c. Deduction is 10% of (Basic Pay + DA)
- d. Gross Salary = Basic Pay + DA+ HRA
- e. Net Salary = Gross Salary Deduction

## Week 13:

Write a program to perform various string operations.

## Week 14:

Write a program to read the data character by character from a file.

## Week 15:

Write a program to create Book (ISBN, Title, Author, Price, Pages, Publisher) structure and store book details in a file and perform the following operations

- a. Add book details
- b. Search a book details for a given ISBN and display book details, if available
- c. Update a book details using ISBN
- d. Delete book details for a given ISBN and display list of remaining Books.

## **Title of the Paper: INFORMATION TECHNOLOGY** Semester: I

## **SECTIONS: B.Com (CA)**

Course Code	CSBT11A	Course Delivery Method	Class Room / Blended Mode - Both		
Credits	4	CIA Marks	30		
No. of Lecture Hours / Week	5	Semester End Exam Marks	70		
Total Number of Lecture Hours	60	Total Marks	100		
Year of Introduction :2020-21	Year of Offering: 2021 - 22	Year of Revision:	Percentage of Revision: 0%		

#### **Objective:**

#### **INFORMATION TECHNOLOGY**

It provides to learn computer basics and basic principles of using Windows operation system and be able to access the Internet, data communication, Software, hardware and various new technologies in information technology.

#### **Course Outcomes:**

COURSE OUTCOME	Upon successful completion of this course, students should have the knowledge and skills to
CO1	Understand fundamental concepts of a computer and its basic components
CO2	Understand basic functioning of an operating system and customizing Windows Desktop
CO3	Analyse type of soft wares and programming languages
CO4	Have knowledge in basic Network and Data Communication Concepts
CO5	Understand the need of data mining and get familiarize with basics of new concepts like KDD, OLAP
UNIT-I: INTROI	DUCTION: 13Periods

## **UNIT-I: INTRODUCTION:**

Introduction to computers

Generations of computers

An overview of computer system - Types of computers

Input & Output Devices.

Hardware: Basic components of a computer system- Control unit- ALU- Input/outputfunctions. Memory – RAM – ROM – EPROM - PROM and Other types of memory.

## **UNIT-II: OPERATING SYSTEM (OS):**

**12Periods** 

Meaning - Definition & Functions.

Types of OS - Booting process

DOS - Commands (internal & external) - Wild card characters

Windows: Using the Start Menu –Control Panel – Using multiple

Windows - Customizing the Desktop - Windows accessories (Preferably latest version of windows or Linux Ubuntu).

#### **Unit-III: SOFTWARE:**

System software and application

**15Periods** 

20 Periods

software. Operating system windows OS, Mobile device operating system and notebook operating systems Application software Types of personal application software Spread sheet-data management Word processing Desktop publishing Graphics, CAD, CAM, CIM **Programming Languages** Assembly language

Procedural language, non-procedural language, natural programming language.

Hypertext mark-up language, modelling language, object-oriented programming language.

#### **Unit-IV: DATA COMMUNICATION:**

Telecommunication and Networks Communication media& channel cable media Broad cast media channels twisted pair

Coaxial cable, fibers optical cable, micro wave, satellite, radio, cellular radio, infrared global positioning system.

Introduction, Analog and Digital signals, modulation need of modulations, modems. Telecommunication System communication processors:

Modem

**Multiplexers** 

Front -- end-processor.

Networks LAN, WAN, VAN, virtual private network (VPN).

Internet, intranet and Extranets

The evolution of the internet, service provided by the internet, World Wide Web.

#### **Unit-V: NEW TECHNOLOGIES:**

**10 Periods** 

New technologies in Information Technology:

Introduction to hyper media, artificial intelligence and business intelligence, knowledgediscovery in database (KDD)

Data warehouse and data marts. Data mining and OLAP.

## **Student Activity:**

Students have to submit assignments and give seminars on various topics allotted to them.

Total of 5 Hrs is allotted for student seminars. Student activity also includes gathering of information related to latest technologies in computers.

## Library Activity:

Students will visit library in their allotted time and will refer various text books to gather information for their assignments.

## **TEXT/ REFERENCE BOOKS:**

- 1. B.E.V.L.Naidu, V.V.. Devi Prasad Konti, Ganti Naga Srikanth, Himalaya publishing House.
- 2. Introduction to Computers: Peter Norton, McGraw Hill.

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2021-22)

## **Model Paper**

#### TITLE: INFORMATION TECHNOLOGY CLASS B.Com(CA) TIME: 3 Hrs.

#### COURSE CODE: CSBT11A SEMESTER: I MAX: 70M

5X14=70M

## SECTION-A

	ANSWER AL	L QUESTIONS	
	6. a. Unit 1(10M)		
	e. Unit 1(4M)		
	OR		
	f. Unit 1(10M)		
	g. Unit 1(4M)		
_			
7.	a. Unit 2(10M)		
	e. Unit 2(4M)		
	OR		
	f. Unit 2(10M)		
	g. Unit 2(4M)		
0			
δ.	a. Unit $3(10M)$		
	e. Unit $3(4M)$		
	OR		
	f. Unit 3(10M)		
	g. Unit 3(4M)		
0	a Unit $4(10)$		
9.	a. Unit $4(10101)$		
	OP		
	$\frac{OK}{f  Unit  4(10M)}$		
	1. Unit $4(10NI)$		
	g. Unit 4(41vi)		
10	. a. Unit 5(10M)		
	e. Unit 5(4M)		
	OR		
	f. Unit 5(10M)		
	g. Unit 5(4M)		
	0		

## A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

Vuyyuru-521165. NAAC reaccredited at 'A' level

Autonomous -ISO 9001 – 2015 Certified

## Title of the Paper: COMPUTER APPLICATIONS

Semester: I

Course Code	CCSE101	Course Delivery Method Class Room /		
			Blended Mode –	
Credits	3	CIA Marks	30	
No. of Lecture Hours / Week	4	Semester End Exam Marks	70	
Total Number of Lecture	60	Total Marks	100	
Hours				
Year of Introduction :2020-21	Year of Offering:	Year of Revision:	Percentage of	
	2022-23		Revision: 0%	
	1			

## **COURSE OBJECTIVES**:

It provides to learn computer basics and basic principles of using Windows operation system and be able to access the Ms-Office, Power Point, Excel and various new technologies in information technology.

## **Course Outcomes:**

COURSE OUTCOME	Upon successful completion of this course, students should have the
NO	knowledge and skills to
CO1	Understand fundamental concepts of a computer and its basic components
CO2	Understand basic functioning of an Ms-Office and MS-Word Window Components Windows Desktop
CO3	Analyze type of soft ware's and programming languages
CO4	Have knowledge in MS-Excel and MS Access
CO5	Understand the need of Finding, Sorting and Displaying Data and get familiarize

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

COMPUTER SCIENCE	CCSE101	2022-23	B.Com(E-Commerce- Computes)	
SEMESTER – I PAPER – I	Max. Mark	ks 70 Pass	Marks 28	Total Hrs: 60
Syllabus: Computer Applicatio	ns NO.	Of Hrs: 4	Crec	lits: 3

(With Effect from Academic Year 2021-'22)

#### Unit-I: MS-Word

Features of MS-Word – MS-Word Window Components – Creating, Editing, Formatting and Printing of Documents – Headers and Footers – Insert/Draw Tables, Table Auto format – Page Borders and Shading – Inserting Symbols, Shapes, Word Art, Page Numbers, Equations – Spelling and Grammar – Thesaurus – Mail Merge

## **Unit-II: MS-PowerPoint**

Features of PowerPoint – Creating a Blank Presentation - Creating a Presentation using a Template -Inserting and Deleting Slides in a Presentation – Adding Clip Art/Pictures - Inserting Other Objects, Audio, Video - Resizing and Scaling of an Object – Slide Transition – Custom Animation

#### Unit-III: MS-Excel

Overview of Excel features – Creating a new worksheet, Selecting cells, Entering and editing Text, Numbers, Formulae, Referencing cells – Inserting Rows/Columns – Changing column widths and row heights, auto format, changing font sizes, colors, shading and attributes – Data Sorting and Filters – Functions – Functions requiring Addins, Functions by category Creating different types of Charts

#### Unit-IV: MS Access:

Creating a Simple Database and Tables: Features of Ms-Access, Creating a Database, Parts of Access. Tables: table creation using design view, table wizard, data sheet view, import table, link table. Forms: The Form Wizard, design view, columnar, tabular, data sheet, chart wizard.

#### **Unit- V: Finding, Sorting and Displaying Data:**

Queries and Dynasts, Creating and using select queries, Returning to the Query Design, Multi-level sorts, Finding incomplete matches, showing All records after a Query, saving queries - Crosstab Queries. Printing Reports: Form and Database Printing..

#### **Reference Books:**

1. Ron Mansfield, Working in Microsoft Office, Tata McGraw Hill(2008)

2. Ed Bott, Woody Leonhard, Using Microsoft Office 2007, Pearson Education(2007)

3. Sanjay Saxsena, Microsoft Office, 4. Microsoft Office, BPB Publications

## 12Hrs

## 1011

# 10 Hrs

**10 Hrs** 

10Hrs

## 12Hrs

(With Effect from Academic Year 2021-22)

**Model Paper** 

TITLE: COMPUTER APPLICATIONS SECTIONS: B.Com(E-Commerce-Computers) TIME: 3 Hrs. COURSE CODE: CSCE101 SEMESTER: I MAX: 70M

## **SECTION-A**

## **ANSWER ALL QUESTIONS**

5X14=70M

- 1. a. Unit 1(10M) b. Unit 1(4M) OR c. Unit 1(10M) d. Unit 1(4M)
- 2 a. Unit 2(10M)

b. Unit 2(4M)
OR
c. Unit 2(10M)
d. Unit 2(4M)

3 a. Unit 3(10M)

b. Unit 3(4M)

OR

- c. Unit 3(10M)
- d. Unit 3(4M)

4 a. Unit 4(10M) b. Unit 4(4M) OR c. Unit 4(10M) d. Unit 4(4M)

5 a. Unit 5(10M) b. Unit 5(4M)

OR

c. Unit 5(10M)

d. Unit 5(4M)

## AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2019-'20)

COMPUTER SCIENCE		С	CSEP-101	01 2022-23		B.Com. (E-COMMERCE)	
SEMESTER – I	PAPER	- I	Max. Mark	s 50	Pass M	larks 20	Total Hrs: 30

## **COMPUTER APPLICATIONS LAB**

## Ms-Word

- 1. Create a vesting Card
- 2. Create a template for organization using Header & Footer
- 3. Inserting tables, pictures, Charts
- 4. Macros
- 5. Mail merge Procedure

## Ms-Excel

1. Create an electronic spreadsheet in which you enter the following decimal numbers and convert into Octal, Hexadecimal and Binary numbers vice versa. Decimal Numbers: 35, 68, 95, 165, 225, 355, 375, 465. Binary Numbers: 101, 1101, 111011, 10001, 110011001, 111011111.

2. The ABC Company shows the sales of different products for 5 years. Create column chart, 3D-column and Bar chart for the following data YEAR PRODUCT-1 PRODUCT-2 PRODUCT-3 PRODUCT-4 2003 1000 800 900 10002004 800 80 500 9002005 1200 190 400 8002006 400 200 300 1000 2007 1800 400 400 1200

3. Create a suitable examination data base and find the sum of the marks(total) of each student and respective class secured by the student rules:

Pass if marks in each subject >=35 Distinction if average>=75 First class if average>=60 but <75 Second class if average>=50 but <60 Third class if average>=35 but <50

Fail if marks in any subject is <35 Display average marks of the class, subject wise and pass percentage

4. Create an electronic spread sheet in which you enter date and time functions in Excel

5. Create a electronic spread sheet in statistical and mathematical functions in Excel

## **MS-PowerPoint**

- 1. Make a Power point presentation on your strengths, weaknesses, hobbies, factors that waste your time.
- 2. Make a Power point presentation to represent your College profile.

3. Make a Power point presentation of all the details of the books that you had studied in B.Sc. First Year.

4. Create a Presentation without Animation.

## **MS-ACCESS**

1. Create a database using MS-ACCESS with at least 5 records table1 structure: register number, name, dob, gender, class table2 structure: register number m1 m2 m3 m4 m5 total maintain the relationship between two tables with register number as a primary key and answer the following quarries: show the list of students with the following fields as one query register number name gender total marks

2. Maintain the relationship between above two tables with register number as a primary key and answer the following reports: reports must have following columns report1 with register number, name, marks of all subjects and 90 hrs (3 hrs/ week) computer science 10 of 44 total report2 with register number, total, percentage.

3. Create a database using ms-access with at least 5 records table1 structure: emp-code emp-name age gender dob table2 structure: emp-code basic-pay maintain the relationship between two tables with emp-code as a primary key generate the following reports: report1: emp-code emp-name basic-pay da,hra gross-salary report2: emp-code emp-name age gender gross-salary.