

**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


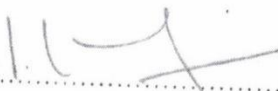

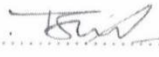
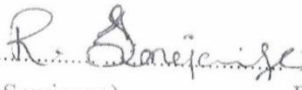


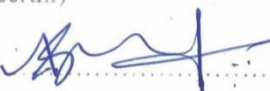



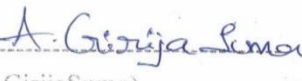
ODD SEMESTER

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**

Members Present:

- 1)..... Chairman
(T.NagaPrasadaRao) Head, Department of Computer Science,
AG&SG Siddhartha Degree College of Arts & Science,
Vuyyuru-521165
- 2)..... University
(Dr. R.Kiran Kumar) Nominee Professor,
Dept of Computer Science,
Krishna University, Machilipatnam.
- 3)..... Academic
(Dr. Suresh Sundaradasu) Council Head, Department of Computer Science& Engineering,
Dhanekula Institute of Engineering & Technology,
Ganguru, JNTU(K), Vijayawada.
- 4)..... Academic
(Dr. K Bhagvan) Council Professor, Department of Computer Science
K.B.N College,
Vijayawada.
- 5)..... Industrial
(R. Sowjanya) Excerpt .Net Developer,
Mavensoft Systems Private limited
Madaapur, Hyderabad.
- 6)..... Member
(K Srikanth) Lecturer in Computer Science,AG&SG Siddhartha
Degree College of Arts &Science, Vuyyuru-521165.
- 7)..... Member
(T.Keerthi) Lecturer in Computer Science,AG&SG Siddhartha
Degree College of Arts &Science, Vuyyuru-521165
- 8)..... Member
(A. Sravani) Lecturer in Computer Science,AG&SG Siddhartha
Degree College of Arts &Science, Vuyyuru-521165
- 9)..... Member
(S.Prabhavathi) Lecturer in Computer Science,AG&SG Siddhartha
Degree College of Arts &Science, Vuyyuru-521165
- 10)..... Member
(V. N. MalleswaraRao) Lecturer in Computer Science,AG&SG Siddhartha
Degree College of Arts &Science, Vuyyuru-521165
- 11)..... Member
(A.Preethi) Student in M.Sc. Computer Science, AG& SG Siddhartha
Degree College of Arts & Science, Vuyyuru-521165
- 12)..... Member
(A GirijaSuma) Student in B.Sc. Computer Science, AG&.SG Siddhartha
Degree College of Arts & Science, Vuyyuru-521165

Agenda for B.O.S Meeting.

1. 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

- 1) 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).
 - III Semester 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 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.
- 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 (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 marks
2. Record	: 10 marks
3. Day to day observation	: 5 marks
4. Problem solving and Execution	: 5 marks

Total Marks	: 25

7). Discussed and recommended to organize certificate courses for Computer Science and Non-Computer Science students separately, Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council.


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 1ST MPC's & MCC's -1ST 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)-5TH 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 Year Degree on words.


Chairman

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
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(With Effect from Academic Year 2020-21)

COMPUTER SCIENCE	CSC-501C	2020-'21	B.Sc.(MPCs,MCCs)
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SEMESTER – V

PAPER – V

Max. Marks 70

Syllabus

DATA BASE MANAGEMENT SYSTEMS

NO Of Hours: 4

No 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

12Hrs

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

12 Hrs

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

14 Hrs

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

12 Hrs

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

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SEMESTER – V

PAPER – V

Max. Marks 70

Model Paper

DATA BASE MANAGEMENT SYSTEMS

NO Of Hours: 4

No Of Credits: 3

Pass Marks 28

Section-A

Answer any **FOUR** Questions. Each question carries **FIVE** Marks

4x5=20M

1. Explain the Components of Database System?
2. Explain Relational Data Model?
3. Write about Relational Set Operators?
4. Describe BCNF?
5. Write about Special Functions?
6. Explain Stored Procedures?

Section-B

Answer any **FIVE** Questions. Each question carries **TEN** Marks

5X10=50M

7. What is File? Explain the problems with File system
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.

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SEMESTER – V PAPER – V Max. Marks 70 Pass Marks 28

Guidelines for paper setting '**DATA BASE MANAGEMENT SYSTEMS**'

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

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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 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. 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

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COMPUTER SCIENCE	CSC-502C	2020-'21	B.Sc.(MPCs,MCCs)
SEMESTER – V	PAPER – VI	Max. Marks 70	

Syllabus

SOFTWARE ENGINEERING

NO of Hours: 4

No Of Credits: 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 **12Hrs**

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 **14 Hrs**

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 **10Hrs**

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 Quality: **12Hrs**

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.



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Vuyyuru-521165, Krishna District, Andhra Pradesh

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NAAC "A" Grade, ISO 9001:2015 Certified Institution

DEPARTMENT OF COMPUTER SCIENCE

Minutes of the meeting of Board of Studies in Computer Science for PG held on 06-04-2023 in the Department of Computer Science.

Semester	:	II	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 exam	:	70
Total no. of lecture hours	:	60	Total marks	:	100
Year of Introduction	:	2020-21	Year of Revision	:	2022-23
% of revision	:	30%			
Course content suggested by APSCHE		Additions			Deletions
UNIT-I: Introduction to Software Engineering & Process		NIL			NIL
Unit-II: Process Models				VB Script:	
Unit-III: Requirements Engineering					
Unit-IV: Analysis Model					Analysis Model
Unit-V: Design Engineering		Design Engineering moved to unit-4			
		Software Quality			

It is resolved and recommend the changes in the syllabus of course code: 22CS2T3, Course: Web Technologies from the academic year 2022-23 onwards for I M.Sc (Computer Science), II Semester.

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SEMESTER – V

PAPER – VI

Max. Marks 70

Model Paper

SOFTWARE ENGINEERING

NO of Hours: 4

No Of Credits: 3

Pass Marks 28

Section – A

Answer any **FIVE** Questions. Each question carries **FIVE** Marks

4x5=20M

1. Write about Software Layered Technology?
2. Explain about Process Framework?
3. Explain about RAD Model?
4. Explain Validating Requirements
5. Explain about Modularity?
6. Write about Software Reliability?

Section – B

Answer any **FIVE** Questions. Each question carries **TEN** Marks

5X10=50M

7. Explain about CMMI?
8. Explain about Software Myths?
9. Explain about Incremental Model?
10. Explain about Spiral Model?
11. Explain about Requirements Engineering Tasks?
12. Write about design concepts in design engineering?
13. Explain about Quality and Quality Concepts?
14. Write about SSQA?

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SEMESTER – V PAPER – VI Max. Marks 70 Pass Marks 28

Guidelines for paper setting '**SOFTWARE ENGINEERING**'

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	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

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SEMESTER – V

PAPER – VI

Max. Marks 50

Lab List

SOFTWARE ENGINEERING

Pass Marks 25

No. of Hours per week: 2

External: 25

Internal: 25

Credits: 2

A. ATM

- 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
8. ER Diagram of an ATM System

B. Library management System

1. Objective of Librarymanagement System.2. Use-case Diagram of Librarymanagement
3. Class Diagram of Library management System4. Sequence Diagram of Library management
5. Activity Diagram of Library management System6. State Diagram of Library management
7. Deployment Diagram of Library management System8. ER Diagram of Library management

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 ofBarcode Reader6. State Diagram ofBarcode Reader
7. Deployment Diagram ofBarcode Reader
8. ER Diagram ofBarcode Reader

D .Safe Home System

1. Objective of Safe Home System.
2. Use-case Diagram of Safe Home System
3. Class Diagram of Safe Home System
4. Sequence Diagram of Safe Home System
5. Activity Diagram ofSafe Home System
6. State Diagram ofSafe Home System
7. Deployment Diagram of Safe Home System
8. ER 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 System
3. Class Diagram of Online Book Store System
4. Sequence Diagram of Online Book Store
5. Activity Diagram ofOnline Book Store System
6. State Diagram ofOnline Book Store System
7. Deployment Diagram of Online Book Store System
8. ER Diagram of Online Book Store

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SEMESTER – V

PAPER – V

Max. Marks 70

Pass Marks 28

Syllabus OBJECT ORIENTED PROGRAMMING USING JAVA

Total Hrs: 60

NO. Of. Hours: 5

Credits: 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

14Hrs

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

12 Hrs

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

12Hrs

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

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SEMESTER – V PAPER – V

Max. Marks 70

Pass Marks 28

Syllabus

OBJECT ORIENTED PROGRAMMING USING JAVA

Total Hrs: 60

NO. Of. Hours: 4

Credits: 3

Section- A

Answer FOUR 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?

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SEMESTER – V PAPER – V

Max. Marks 70

Pass Marks 28

Syllabus

OBJECT ORIENTED PROGRAMMING USING JAVA

Total Hrs: 60

NO. Of. Hours: 4

Credits: 3

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (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

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SEMESTER – VPAPER – V

Lab ListOBJECT ORIENTED PROGRAMMING USING 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 on interface in java
10. Write a program on inheritance

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SEMESTER – V

PAPER – VI

Max. Marks 70

Syllabus

DATA BASE MANAGEMENT SYSTEMS

NO Of Hours: 5

No Of Credits: 3

Pass Marks 28

Course Objective: Design & develop database for large volumes & varieties of data with optimized data processing techniques.

Unit – 1: Database Systems Introduction

12Hrs

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

12 Hrs

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

14 Hrs

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

12 Hrs

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

10 Hrs

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'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

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SEMESTER – V

PAPER – VI

Max. Marks 70

Model Paper

DATA BASE MANAGEMENT SYSTEMS

NO Of Hours: 5

No Of Credits: 3

Pass Marks 28

Section-A

Answer any **FOUR** Questions. Each question carries **FIVE** Marks

4x5=20M

1. Explain the Components of Database System?
2. Explain Entity Relationship Model?
3. Write about Relational Set Operators?
4. Describe BCNF?
5. Write about Special Functions?
6. Explain Stored Procedures?

Section-B

Answer any **FIVE** Questions. Each question carries **TEN** Marks

5X10=50M

7. What is File? Explain the problems with File system?
8. Explain any three different Data Models?
9. Explain E.F. CODDs' rules?
10. Explain Extended Entity Relationship Model?
11. Explain the concept of Normal Forms?
12. Explain different join operators?
13. Explain DDL and DML commands?
14. Explain about triggers?

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SEMESTER – V

PAPER – VI Max. Marks 70

Pass Marks 28

Guidelines for paper setting '**DATA BASE MANAGEMENT SYSTEMS**'

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	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

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SEMESTER – V

PAPER – VI

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 greater 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, Sname : NOT NULL, 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

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SEMESTER – V

PAPER – VII

Max. Marks 70

Syllabus

WEB TECHNOLOGIES

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 2nd Edition, Bryan Basham, Kathy Sierra

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

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SEMESTER – V

PAPER – VII

Max. Marks 70

Model Paper

WEB TECHNOLOGIES

No of Credits: 3

Pass Marks 28

Section-A

Answer **FOUR** Questions. Each Question carries **FIVE** Marks.

5 X 4=20M

1. Write about structure of HTML Document with an example?
2. Explain about lists in HTML?
3. Write about java script statements?
4. Write about Rollover buttons?
5. Describe XML Elements?
6. Write the syntax of EL and EL variables?

Section-B

Answer **FIVE** 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

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SEMESTER – VI

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 weightage given by us

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SEMESTER – III PAPER – III

Max. Marks 70

Pass Marks 28

Syllabus OBJECT ORIENTED PROGRAMMING USING JAVA Total Hrs: 60

NO. Of. Hours: 4

Credits: 3

UNIT-I

15Hrs

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, Type casting, Getting Value of Variables; **Operators & Expressions.**

UNIT-II

15 Hrs

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;

UNIT-III

10 Hrs

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

10 Hrs

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

10 Hrs

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, Namingconventions, 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 Compan

Reference Books

1. Programming In Java By Sachin Malhotra And Saurabh Choudhary From Oxford UP
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

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SEMESTER – III

PAPER – III

Max. Marks 70

Pass Marks 28

Syllabus:

OBJECT ORIENTED PROGRAMMING USING JAVA

Total Hrs: 60

NO. Of. Hours: 4

Credits: 3

Section- A

Answer FOUR Questions. Each Question carries FIVE Marks.

4*5=20M

- 1.Explain the structure of a java program?
- 2.Explain different data types in java?
- 3.Explain about Constructors?
- 4.Differences between arrays and vectors?
- 5.Explain about Exception handling?
- 6.Explain the applet life cycle?

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 Looping statements with example
- 10.Explain Method overloading with an example program
- 11.Explain about inheritance
- 12.Explain the concept of interface?
- 13.Explain life cycle of a thread?
- 14.Explain about Byte Stream Classes?

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COMPUTER SCIENCE

CSC-301C

2020-21

B. Com (CA)

SEMESTER – III

PAPER – III

Max. Marks 70

Pass Marks 28

Syllabus

OBJECT ORIENTED PROGRAMMING USING JAVA

Total Hrs: 60

NO. Of. Hours: 4

Credits: 3

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

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SEMESTER – III

PAPER – III

Max. Marks:50

Lab List OBJECT ORIENTED PROGRAMMING USING 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 assign priorities to threads in java

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COMPUTER SCIENCE	ICT-II-301C	2020-'21	B.A, B.Com, B.Sc.
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SEMESTER – III PAPER – II Max. Marks 50 Pass Marks 20 Total Hrs 30

Syllabus Internet Fundamentals and Web Tools NO. Of Hrs: 2 Credits: 2

Unit-I : 6Hrs

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: 6Hrs

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: 6Hrs

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

Unit-V : 6Hrs

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

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

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

Section- A

Answer FOUR 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 THREE 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.

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SEMESTER – III

PAPER – II

Max. Marks 50

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

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	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

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SEMESTER – III PAPER – III Max. Marks 70 Pass Marks 28 Total Hrs: 60

Syllabus Office Automation Tools

NO. Of. Hours: 5Credits: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

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SEMESTER – III PAPER – III

Max. Marks 70

Pass Marks 28 Total Hrs: 60

Model PaperOffice Automation Tools

NO Of Hours: 5 Credits: 4

Section- A

Answer FOUR Questions. Each Question carries FIVE Marks.

4*5=20M

1. Explain Features of Excel?
2. What are advantages of Functions?
3. Explain what is sorting?
4. Explain how to delete Macro?
5. Write any 5 Features of Access?
6. Describe Query used in MS-Access?

Section- B

Answer FIVE the Questions. Each Question carries TEN Marks.

5*10=50M

7. Explain Parts of Excel Sheet with neat Diagram.
8. Explain AutoFill and Custom Fill Options in Excel.
9. Explain different types of Functions available.
10. Explain different Formatting options.
11. What is Chart? Explain different types of Charts.
12. What is Macro? Explain Creating and Editing of Macro.
13. What is Form? Explain Creating Form using Form Wizard.
14. Explain How to Create a Query, Showing, all records after Query and Saving Query.

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SEMESTER – III PAPER – III Max. Marks 70

Guidelines for paper setting **'OFFICE AUTOMATION TOOLS'**

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

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SEMESTER – 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

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 queries: 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

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SEMESTER – I PAPER – II Max. Marks 70 Pass Marks 28

Syllabus 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 FIVE 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?

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SEMESTER – I

PAPER – I

Max. Marks 70

Guidelines for paper setting '**Problem Solving in C**'

<u>Unit wise weight age of Marks</u>	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

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COMPUTER SCIENCE	CSC-101P	2020-'21	B.Sc. (MPCs, MCCs.)
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SEMESTER – I PAPER – I Max. Marks: 50 Pass Marks 25

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

Lab List: Problem solving in C LAB

1. Write a program to check whether the given number is Armstrong or not.
2. Write a program to find the sum of individual digits of a positive integer.
3. Write a program to generate the first n terms of the Fibonacci sequence.
4. Write a program to find both the largest and smallest number in a list of integer values.
5. Write a program to demonstrate reflection of parameters in swapping of two integer values using **Call by Value & Call by Address**
6. Write a program that uses functions to add two matrices.
7. Write a program to calculate factorial of given integer value using recursive functions.
8. Write a program for multiplication of two N X N matrices.
9. Write a program to perform various string operations.
10. Write a program to search an element in a given list of values.
11. Write a program to sort a given list of integers in ascending order.
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 Basic Pay
HRA is 15% of Basic Pay
Deduction is 10% of (Basic Pay + DA)
Gross Salary = Basic Pay + DA + HRA
Net Salary = Gross Salary - Deduction
13. Write a program to illustrate pointer arithmetic.
14. Write a program to read the data character by character from a file.
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 book details
Search a book details for a given ISBN and display book details, if available
Update a book details using ISBN
Delete book details for a given ISBN and display list of remaining books

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SEMESTER – II PAPER – II Max. Marks 70 Pass Marks 28

Syllabus:INTRODUCTION TO INFORMATION TECHNOLOGY

NO. Of. Hours: 4Credits:3

Section- A

Answer FOUR Questions. Each Question carries FOUR Marks.

4*5=20M

1. What are the Applications of Computer?
2. Explain the types of Programming Languages?
3. What is Software? Explain Different Categories of Software?
4. What is the Role of Information Technology (IT)?
5. What are the components of Data Communication?
6. Explain different types of Topologies?

Section- B

Answer FIVE 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?

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COMPUTER SCIENCE

CCSC-103C

2020-'21

B.Com(CA)

SEMESTER – I

PAPER – I

Max. Marks 70

Guidelines for paper setting III

<u>Unit wise weight age of Marks</u>	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

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SEMESTER – I

PAPER – I

Max. Marks 50

Pass Marks 20

Lab List Introduction to Information Technology & Internet

NO Of Hours: 2 Credits: 2

1. Introduction to Computers.
2. Block Diagram of a Digital Computer
3. Memory Devices
4. Software & Hardware
5. MS-DOS.
 - b) Internal Commands
 - c) External Commands
6. Windows.
7. MS-Word:
 - a) Creating a letter pad.
 - b) Creating a visiting card.
 - c) Prepare a time table.
 - d) Header & footers
 - e) Mail Merge.
8. MS-Power Point:
 - a) Power point presentation for Fourth National Games.
 - b) Power point presentation for Indian Education System.
 - c) Power point presentation to represent your College profile.
 - d) Power point presentation using Multimedia.
 - e) Power point presentation to represent your department
9. How to create E-mail, Information Browsing Service
10. World Wide Web, Information Retrieval from the World Wide Web
11. Data Transmission Modes
12. Network Topologies