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 A.M on 10-11-2021 in the Department of Computer Science.

Sri T.NagaPrasadaRao ... Presiding

Members Present:

1)..... (T.NagaPrasadaRao)	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	Head, Department of Computer Science A.N.R College Gudivada.
4) ..... (Mr. K. Sridhar)	Subject Expert	Deputy Head, Department of Computer Science PB Siddhartha College of Arts & Science, Vijayawada.
5) ..... (R. Sowjanya)	Industrial Expert	.Net Developer, Maven Soft System Pvt. Ltd Madaapur, Hyderabad.
6)..... (T. Keerthi)	Member	Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru
7)..... (K Srikanth)	Member	Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165.
8)..... (S.Prabhavathi)	Member	Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165
9) ..... (A ...)	Member	Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165
10)..... (V.N.MalleswraRao)	Member	Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165
11)..... (A. Naga Srinivasa Rao)	Member	Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165
12)..... (V. Munni)	Member	Lecturer in Computer Science, AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165
13) ..... (K. Rajya Lakshmi)	Member	Student in M.Sc. Computer Science, AG& SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165
14) ..... (M. Jyothi)	Member	Student in B.Sc. Computer Science, AG& SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165

Agenda for B.O.S Meeting.

1. 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.
2. 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.

1) 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),

Computer Science Practical's - External (Time: 3 hrs.) **Total Marks: 25M**

1. Programs Writing (2)	:	20 marks,
2. Viva voice	:	5 marks
3. Execution & Result	:	15 marks
Total Marks	:	40

Computer Science Practical's- Internal **Total Marks: 10 M**

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 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

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COMPUTER SCIENCE	CSC-501C	2021-'22	B.Sc.(MPCs,MCCs)

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:

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

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COMPUTER SCIENCE	**CSC-501C**	**2021-'22**	**B.Sc.(MPCs,MCCs)**

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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COMPUTER SCIENCE	CSC-501C	2021-'22	B.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

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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. 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	2021-'22	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.

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:SoftwareQuality: **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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COMPUTER SCIENCE	**CSC-502C**	**2021-'22**	**B.Sc.(MPCs,MCCs)**

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 **FOUR** 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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COMPUTER SCIENCE	CSC-502C	2021-'22	B.Sc.(MPCs,MCCs)

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	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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COMPUTER SCIENCE	CSC-502C	2021-'22	B.Sc.(MPCS,MCCs)

SEMESTER – V **PAPER – VI** **Max. Marks 50**

Lab List **SOFTWARE ENGNEERING** **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 System6.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

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COMPUTER SCIENCE	**CCSC-505C**	**2021-22**	**B. Com (CA)**

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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COMPUTER SCIENCE	**CCSC-505C**	**2021-22**	**B. Com (CA)**

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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COMPUTER SCIENCE	**CCSC-505C**	**2021-22**	**B. Com (CA)**

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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(**With Effect from Academic Year2020-21**)

COMPUTER SCIENCE	**CCSC-505C**	**2021-22**	**B. Com (CA)**

SEMESTER – V **PAPER – V**

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 on interface in java
10. Write a program on inheritance

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COMPUTER SCIENCE	CCSC 506C	2021-'22	B.Com.(C.A.)

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:

2Elimasri / Navathe, Fundamentals of Database Systems, Fifth Edition, Pearson Addison Wesley

3. C.J.Date, A.Kannan, S.Swamynathan, An Introduction to Database Systems, Eight edition, 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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COMPUTER SCIENCE	**CCSC 506C**	**2021-'22**	**B.Com.(C.A.)**

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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COMPUTER SCIENCE	CCSC 506C	2021-'22	B.Com.(C.A.)

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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(**With Effect from Academic Year 2020-21**)

COMPUTER SCIENCE	**CCSC-506P**	**2021-'22**	**B. COM(CA)**

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 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.

<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

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COMPUTER SCIENCE	**CCSC-507C**	**2021-'22**	**B.Com.(CA)**

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: **13Hrs**

Introduction to HTML, Basic html, Document body text, Hyperlinks, Lists, Tables, Images, Frames, Forms and XHTML.

Unit- II: CSS: **12Hrs**

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 **13Hrs**

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 **12Hrs**

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

Unit -V:JSP: **10Hrs**

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

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

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COMPUTER SCIENCE	**CCSC-507C**	**2021-'22**	**B.Sc.(MPCs)**

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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(With Effect from Academic Year 2020-21)

COMPUTER SCIENCE	CCSC-507C	2021-'22	B.COM(CA)

SEMESTER – 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

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COMPUTER SCIENCE	**CSC-301C**	**2021-'22**	**B.Sc.(MPCs,MCCs)**

SEMESTER –III **PAPER – III** **Max. Marks 70**

Model Paper: **DATA BASE MANAGEMENT SYSTEMS**

NO of Hours: 4 **No Of Credits: 3** **Pass Marks 28**

Course Objective:

The objective of the course is to introduce the design and development of databases with special emphasis on relational databases.

UNIT I **12Hrs**

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 **12Hrs**

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 **12Hrs**

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.

UNIT IV **12Hrs**

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 Query.

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. SQL: 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))

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

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COMPUTER SCIENCE	**CSC-301C**	**2021-'22**	**B.Sc.(MPCs,MCCs)**

SEMESTER – III **PAPER – III** **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 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-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 – III PAPER –III 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 weightage given by us

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COMPUTER SCIENCE	**CSC-301P**	**2021-'22**	**B.Sc.(MPCS,MCCs)**

SEMESTER – III **PAPER – III** **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. Draw ER diagram for hospital administration

2. Creation of college database and establish relationships between tables

3. Relational database schema of a company is given in the following figure.

Relational Database Schema - COMPANY

Questions to be performed on above schema

1. Create above tables with relevant ***Primary Key, Foreign Key and other constraints***

2. Populate the tables with data

3. Display all the details of all employees working in the company.

4. Display ***ssn, lname, fname, address*** of employees who work in department no 7.

5. Retrieve the ***Birthdate and Address*** of the employee whose name is 'Franklin T. Wong'

6. Retrieve the name and salary of every employee

7. Retrieve all distinct salary values

8. Retrieve all employee names whose address is in 'Bellaire'

9. Retrieve all employees who were born during the 1950s

10. Retrieve all employees in department 5 whose salary is between 50,000 and 60,000(inclusive)

11. Retrieve the names of all employees who do not have supervisors

12. Retrieve SSN and department name for all employees

13. Retrieve the name and address of all employees who work for the 'Research' department

14. For every project located in 'Stafford', list the project number, the controlling department number, and the department manager's last name, address, and birth date.

15. For each employee, retrieve the employee's name, and the name of his or her immediate supervisor.

16. Retrieve all combinations of Employee Name and Department Name

17. Make a list of all project numbers for projects that involve an employee whose last name is 'Narayan' either as a worker or as a manager of the department that controls the project.

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.

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COMPUTER SCIENCE	**CCSC-301C**	**2021-'22**	**B.com(CA)**

SEMESTER – III **PAPER – III** **Max. Marks 70**

Syllabus: Programming in C

NO of Hours: 4 **No Of Credits: 3** **Pass Marks 28**

UNIT-I: General Fundamentals& Programming Languages 10Hrs

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 12Hrs

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 10 Hrs

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 13Hrs

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 15Hrs**

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.

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COMPUTER SCIENCE	**CCSC-301C**	**2021-'22**	**B.COM(CA)**

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

Title :Programming 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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COMPUTER SCIENCE	CSC-301C	2021-'22	B.com(CA)

SEMESTER – III PAPER –III Max. Marks 70

Guidelines for paper setting '**Programming in 'C''**

Unit wise weight age of Marks	Section-A (Short answer questions)	Section-B (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

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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 Hours 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.

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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 Outcome No	Upon successful completion of the course, a student will be able to:	Program Outcome No.
CO1	Understand the evolution & functionality of Digital Computers and develop an algorithm for solving a given problem.	PO1, PO7, PSO1, 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 in C	PO1, PO7, PSO1, 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

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MODEL Question Paper:

TITLE: Problem solving in C **COURSE CODE: CSCT11B**

SECTIONS: B.Sc. (MPCS / MCCS/ MSCS) **SEMESTER: I**

TIME: 3 Hrs. **MAX: 75M**

SECTION –A

ANSWER ANY FIVE 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)**
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)**

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BLUE PRINT

TITLE: Problem solving in C **COURSE CODE: CSCT11B**

SECTIONS: B.Sc. (MPCS / MCCS / MSCS) **SEMESTER: I**

TIME: 3 Hrs. **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

SECTION – B

ANSWER ALL 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.

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Semester I	Course Code	Course Title	Credits	Prds
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.
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.

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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:

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	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: 13Periods

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

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: 15Periods

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: 20 Periods

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: 10 Periods

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

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MODEL Question Paper:

PAPER TITLE: Problem solving in C COURSE CODE: CABT11A

CLASS: B.Com (Computer Applications)

SEMESTER: I

TIME: 3 Hrs. MAX: 75M

SECTION – A

Answer any five of the following 5X5 =25M

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

b) Explain about Artificial Intelligence and Business Intelligence. (CO5, L2)

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Semester I	Course Code	Course Title	Credits	Periods
B.Com. (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

UNIT I: Introduction to Web Designing **(12Hrs)**

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 **(12Hrs)**

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 **(12Hrs)**

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
3.2.3 frame tag

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 (10Hrs)

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 (14Hrs)

5.1 Online Marketing

1. Traditional Vs. E-Marketing

5.1.2 Online Marketing
5.1.3 E-Advertising
5.1.4 Internet marketing

5.2 E – CRM

5.2.1 Definition of CRM and E-CRM and its Applications
5.2.2 E- CRM Architectural components
5.2.3 Definition & characteristics of E- SCM
5.2.4 Benefits and goals of E – SCM
5.2.5 E-Logistics of UPS

5**.3 Electronic Payment Systems**

5.3.1 Types of EPS
5.3.2 Traditional payment system and modern payment system
5.3.3 Steps for electronic payment
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.

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Computer Science		**2021-22**	**B.Com (Computers Applications)**

SEMESTER - I **Credits: 2**

WEB DESIGNING LAB (NEW SYLLABUS)

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.

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E-Commerce &Web Designing

Model Paper

Class: B.Com (Computer Applications)

Course Code: **Max Marks: 75 M**

Semester: II **Time: 3Hours**

Section-A

ANSWER ANY FIVE 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

Section-B

ANSWER THE FOLLOWING QUESTIONS **5X10M=50M**

9. (A) Define Structure of HTML with examples (CO3, L1)

(OR)

(B) What are different types Network Topologies? (CO3, L1)

10. (A) Classify List Types in HTML. (CO4, L2)

(OR**)**

(B) Demonstrate the concept of Table creation with apply all Attributes. (CO4, L2)

11. (A) Define forms in html and creation of form with all input types? (CO5, L1)

(OR)

(B)What are different types of CSS with suitable examples? (CO5, L1)

12. (A) Explain EDI. (CO1, L2)

(OR)

(B) Classify Business Models for Ecommerce. (CO1, L2)

13. (A) Illustrate E- CRM Architectural components. (CO2, L2)

(OR**)**

(B) Explain Electronic Payment Systems. (CO2, L2)

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Semester I	Course Code	Course Title	Credits	Periods
Life Skill Course	LSC1	**BASIC COMPUTER APPLICATIONS**	**2**	**30**

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: 8 Hrs

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: 8Hrs

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: 10Hrs

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.

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

1. 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

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MODEL Question Paper:

PAPER TITLE: BASIC COMPUTER APPLICATIONS **COURSE CODE: LSC1**

SEMESTER: I

TIME: 2 Hrs. **MAX: 50M**

SECTION – A (Total: 4x5=20 Marks)

Answer any **four questions**. Each answer carries **5 marks**

1.
2.
3.
4.
5.
6.
7.
8.

SECTION – B (Total: 3x10 = 30 Marks)

(Answer any **three questions**. Each answer carries **10 marks**

1.
2.
3.
4.
5.