PSGR Krishnammal College for Women

DEPARTMENT OF B.COM (CA)

CHOICE BASED CREDIT SYSTEM (CBCS) &

LEARNING OUTCOMES- BASED CURRICULAM FRAMEWORK (LOCF)

BACHELOR OF COMMERCE WITH COMPUTER APPLICATIONS

2025 – 2028 BATCH

PROGRAMME LEARNING OUTCOMES (PLO's)

After completion of the programme, the student will be able to

PLO1: Acquire knowledge and skills specific to Accounting, finance, taxation, marketing and computer applications to contribute towards innovative business and environment sustainability

PLO2: Assess the scope of commerce, computer applications and other relevant professional courses (CA, CMA, ACS, ACCA) for inter disciplinary and Trans disciplinary studies

PLO3: Imbibe new opportunities in emerging technologies including conceptual and creative thinking as an entrepreneur

PLO4: Nurture employability skills in all areas of business by equipping themselves as a leader in different sectors of commerce and information technology

PLO5: Get transformed into an empowered individual with ethical standards and moral values in societal and professional lives

PROGRAMME SPECIFIC OUTCOME (PSO's)

The students at the time of graduation will

PSO1: Apply the knowledge and skills learnt in this programme towards the industrial scenarios of the real world

PSO2: Apply the knowledge and skills gained in computer application software to meet the technological and creative requirements of the industry

PSO3: Follow ethical values and principles as a responsible citizen and contribute towards society's development

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DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

CHOICE BASED CREDIT SYSTEM (CBCS) &

LEARNING OUTCOMES – BASED CURRICULAR FRAMEWORK (LOCF)

SCHEME & SYLLABUS OF EXAMINATION

2025 -2028 BATCH

Sem	Part	Course Code	Title of the Course	Course Type	Instruction Hours/Week	Contact Hours	Tutorial Hours	Duration of Examination	Examination Marks			Credits
									CA	ESE	TOTAL	
I	I	TAM2501A/ HIN2501A/ FRE2501A	Tamil Paper I/ Hindi Paper I/ French Paper I	L	4	58	2	3	25	75	100	3
	II	ENG2501A	English Paper I	E	4	58	2	3	25	75	100	3
	III	CM25C01	Principles of Accounting	CC	5	73	2	3	25	75	100	3
	III	BP25C02	Fundamentals of Computer Application and Basics of C	CC	6	88	2	3	25	75	100	4
	III	TH24A07	Mathematics for Commerce	GE	5	73	2	3	25	75	100	4
	III	BP25CP1	Office Automation and Internet Basics Practical	CC	4	60	-	3	15	35	50*	2
	IV	NME25B1/ NME25A1	Basic Tamil I / Advanced Tamil I	AEC	2	28	2	-	100	-	100	2
	IV	NME23ES	Introduction to Entrepreneurship	AEC	2	30	-	-	100	-	100	
I-II	VI	NM25GAW	General Awareness	AECC	SS	-	-	-	100	-	100	Gr
	VI	COM25SER	Community Services 30 Hours	GC	-	-	-	-	-	-	-	-
I-V	VI	24BONL1 24BONL2 24BONL3	Online Course I Online Course II Online Course III	ACC	-	-	-	-	-	-	-	-
II	I	TAM2502A/ HIN2502A/ FRE2502A	Tamil Paper II/ Hindi Paper II/ French Paper II	L	4	58	2	3	25	75	100	3
	II	ENG2502A	English Paper II	E	4	58	2	3	25	75	100	3
	III	BP25C03	Relational Database Management System	CC	6	88	2	3	25	75	100	4
	III	CM25C04	Financial Accounting	CC	5	73	2	3	25	75	100	3
	III	TH24A16	Statistics for Commerce	GE	5	73	2	3	25	75	100	4

	III	BP25CP2	Database Programming Practical	CC	4	60	-	3	15	35	50**	2
	IV	NM25UHR	Universal Human Values and Human Rights	AEC	2	30	-	-	100	-	100	2
	IV	*NME25B2/ NME25A2	Basic Tamil II / Advanced Tamil II	AEC	-	-	-	-	100	-	100	Gr.
I-II	VI	NM25GAW	General Awareness	AECC	SS	-	-	-	100	-	100	Gr
	VI	COM25SER	Community Services 30 Hours	GC	-	-	-	-	-	-	-	-
I-V	VI	24BONL1 24BONL2 24BONL3	Online Course I Online Course II Online Course III	ACC	-	-	-	-	-	-	-	-

L-Language E-English SS – Self study CC – Core Courses
CA – Continuous Assessment ESE–End Semester Examination
AEC – Ability Enhancement Course ACC – Additional Credit Course
GE – Generic Elective AECC-Ability Enhancement Compulsory Courses
GC-General Course Gr. - Grade
*** After Class Hours**
****CA conducted for 25 and converted into 15, ESE conducted for 75 and converted into 35**

Examination System

One test for continuous assessment will be conducted on pre-determined dates i.e., commencing on the 50th day from the date of reopening. The Model exam will be conducted after completing 85th working days. Marks for ESE and CA with reference to the maximum forthe courses will be as follows

CA Question Paper Pattern and distribution of marks UG Language and English

Section A	5 x 1 (No choice)	:	5 Marks
Section B	4 x 5 (4 out of 6)	:	20 Marks (250 words)
Section C	2 x 10 (2 out of 3)	:	20 Marks (500 words)
	Total	**:**	**45**

Marks UG- Core and Allied - (First 3 Units)

CA Question from each unit comprising of

One question with a weightage of 2 Marks : 3 x 2 = 6

One question with a weightage of 5 Marks
(Internal Choice at the same CLO level) : 3 x 5 =15

One question with a weightage of 8 Marks
(Internal Choice at the same CLO level) : 3 x 8 =24

Total: 45 Marks

CA Question from each unit comprising of (Accounts Paper)

One question with a weightage of 2 Marks : 3 x 2 = 6

One question with a weightage of 5 Marks : 3 x 5 =15

One question with a weightage of 8 Marks
(Internal Choice at the same CLO level) : 3 x 8 =24

Total: 45 Marks

End Semester Examination – Question Paper Pattern and Distribution of Marks Language and English – UG

Section A	10 x 1 (10 out of 12)	:	10 Marks
Section B	5 x 5 (5 out of 7)	:	25 Marks (250 words)
Section C	4 x 10 (4 out of 6)	:	40 Marks (600 - 700 words)
	Total	**:**	**75 Marks**

UG - Core and Allied courses:

ESE Question Paper Pattern: 5 x 15 = 75 Marks

Question from each unit comprising of

One question with a weightage of 2 Marks : 5 x 2=10

One question with a weightage of 5 Marks
(Internal Choice at the same CLO level) : 5 x 5 =25

One question with a weightage of 8 Marks
(Internal Choice at the same CLO level) :5 x 8 =40

Total : 75 Marks

ESE Question Paper Pattern :(for Accounts Paper) 5 x 15 = 75 Marks

Question from each unit comprising of

One question with a weightage of 2 Marks : 5 x 2=10

One question with a weightage of 5 Marks : 5 x 5 =25

One question with a weightage of 8 Marks
(Internal Choice at the same CLO level) : 5 x 8 =40

Total : 75 Marks

Continuous Internal Assessment PatternTheory

CIA Test	:	5 marks **(conducted for 45 marks after 50 days)**
Model Exam	:	7 marks **(Conducted for 75 marks after 85 days (Each Unit 15 Marks))**
Seminar/Assignment/Quiz	:	5 marks
Class Participation	:	5 marks
Attendance	:	3 marks
Total	**:**	**25 Marks**

Core Practical

Lab Performance	:	7 Marks
Regularity	:	5 Marks
Model Exam	:	10 Marks
Attendance	:	3 Marks
Total	**:**	**25 Marks**

Introduction to Entrepreneurship/Universal Human Values and Human Rights

Quiz	:	50 marks
Assignment	:	25marks
Project / Case study	:	25 marks
Total	**:**	**100 Marks**

Advanced Tamil/ Basic Tamil

CIA Test	: 25 Marks (conducted for 50 Marks after 50 days)
Model Exam	: 50 Marks (conducted for 75 Marks after 85 days)
Quiz	: 15 Marks
Assignment	: 10 Marks
Total	**: 100 Marks**

Attendance Marks

91 – 100%	:	3 Marks
81 – 90 %	:	2 Marks
75 – 80%	:	1 Mark

MAPPING OF PLOs WITH CLOs

COURSE LEARNING OUTCOMES	PROGRAMME LEARNING OUTCOMES				
	PLO1	PLO2	PLO3	PLO4	PLO5
COURSE – CM25C01					
CLO1	S	M	S	M	S
CLO2	S	M	S	M	M
CLO3	S	M	M	M	M
CLO4	S	M	S	M	S
COURSE – BP25C02					
CLO1	M	S	S	S	M
CLO2	S	M	S	S	M
CLO3	S	S	S	L	M
CLO4	M	S	M	M	M
COURSE – BP25CP1					
CLO1	S	S	S	S	M
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M
COURSE – BP25C03					
CLO1	M	S	S	S	M
CLO2	S	M	M	S	S
CLO3	S	S	S	L	M
CLO4	S	S	M	M	S
COURSE – CM25C04					
CLO1	S	S	M	M	S
CLO2	S	S	M	M	S
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M

COURSE – BP25CP2					
CLO1	S	S	S	S	S
CLO2	S	S	S	S	S
CLO3	S	S	S	S	M
CLO4	S	S	S	S	L

S-Strong; M-Medium; L-Low

SEMESTER I

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
CM25C01	PRINCIPLES OF ACCOUNTING	THEORY	73	2	-	3

Preamble

- To enable the students to apply the conceptual principles and to develop an expertise in handling accounts of business entities and the consolidation of accounts through appropriate accounting techniques and policies

Prerequisite

- Basic Knowledge in Financial Statements

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define the concepts and conventions in accounting.	K1
CLO2	Interpret accounting statement using basic concepts.	K2
CLO3	Apply the procedures of recording transactions and preparation of Reports.	K3
CLO4	Articulate the accounting concepts to interpret the performance of a Firm.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	M	S	M	S
CLO2	S	M	S	M	M
CLO3	S	M	M	M	M
CLO4	S	M	S	M	S

S-Strong; M-Medium

PRINCIPLES OF ACCOUNTING - CM25C01- 73 HRS

Unit I **(14 Hrs)**

Basic Accounting Concepts and Conventions – Journal, Ledger Accounts – Subsidiary Books – Trial Balance – Disclosure of Company Accounting Policies (AS 1) – Revenue Recognition (AS 9) – Final Accounts of Sole Trading Concern – Capital and Revenue Expenditure and Receipts – Preparation of Trading, Profit and Loss Account and Balance Sheet with Adjustments.

Unit II **(15 Hrs)**

Classification of Errors – Rectification of Errors – Preparation of Suspense Account. Bank Reconciliation Statement – Need and Preparation. Average due date – Bills of Exchange – Definition – Specimens – Discounting of Bills – Endorsement of Bill – Collection – Noting – Renewal – Retirement of Bill under rebate (trade bills only).

Unit III **(15 Hrs)**

Accounting from Incomplete Records – Single Entry System: Incomplete Records – Meaning and Features – Limitations – Difference between Incomplete Records and Double Entry System – Methods of Calculation of Profit – Statement of Affairs Method – Preparation of final statements by Conversion method. Joint Venture (AS-27).

Unit IV **(15 Hrs)**

Royalty and Insurance Claims: Meaning – Minimum Rent – Short Working – Recoupment of Short Working – Lessor and Lessee – Sublease – Accounting Treatment. Provisions, Contingent Liabilities, and Contingent Assets (AS 29) – Insurance Claims – Calculation of Claim Amount – Average clause (Loss of Stock only).

Unit V **(14 Hrs)**

Depreciation (AS 6)- Meaning – Objectives – Accounting Treatments - Types - Straight Line Method – Diminishing Balance method – Conversion method – Annuity Method – Revaluation Method.

Distribution of Marks: Theory – 20%, Problem – 80%

Text Book

S.No	Authors	Title	Publishers	Year and Edition
1.	Jain S.P & Narang K.L	Principles of Accountancy	Kalyani Publishers	2022, 21st edn.
2.	Reddy TS & A Murthy	Financial Accounting	Margham Publications	Reprint 2021, 7th edn.

Books for Reference

S.No	Authors	Title	Publishers	Year and Edition
1.	R L Gupta & Radhasamy	Advanced Accountancy (Vol I)	Sultan Chand& Sons.	2018, 13th ed.
2.	M C Shukla, T.S. Grewal & S.C. Gupta	Advanced Accountancy	S.Chand & sons	2022, 19th ed.

Pedagogy

- PowerPoint Presentations, Group Discussion, Seminar, Quiz Assignment, Experience Discussion

Skill Components

- Review and assess a company's accounting policies and identify compliance with AS 1 (Disclosure of Accounting Policies) and AS 9 (Revenue Recognition).
- Identify and classify accounting errors and implement appropriate methods for their rectification.
- Apply the Single Entry System to business situations and evaluate the limitations of incomplete records.
- Analyze insurance claims with special emphasis on calculating the claim amount under the average clause, and apply it to loss of stock situations.
- Apply various methods of depreciation to different business scenarios and understand the financial impact of each method.

Course Designers

1.Dr. B. Thulasi Priya, Department of Commerce.
2.Mrs. G. Deebikaa, Department of Commerce.

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP25C02	FUNDAMENTALS OF COMPUTER APPLICATION AND BASICS OF C	THEORY	88	2	-	4

Preamble

- Understanding the basics of computers, their evolution across generations, their applications, advantages, and key terminologies, and to provides a basic understanding of C programming.

Prerequisite

- No prerequisite required

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Recall basic concepts of computers, components, memory, I/O devices, and C programming	K1
CLO2	Explain computers, their components, memory, I/O devices, and C programming concepts like operators, loops, and functions	K2
CLO3	Apply computer hardware, memory, I/O devices, and C programming concepts to create simple solutions	K3
CLO4	Analyze computer components and C programming concepts to evaluate their roles in computing systems	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	M	S	S	S	M
CLO2	S	M	S	S	M
CLO3	S	S	S	L	M
CLO4	M	S	M	M	M

S-Strong; M-Medium; L-Low

FUNDAMENTALS OF COMPUTER APPLICATIONS AND BASICS OF C - BP25C02- 88 HRS

UNIT I **(17 Hours)**

Introduction to Computer: Definition -History & Generation of Computer (From First to 5th) -Applications of Computer –Advantages of Computer –Terms related to Computer - Characteristics of Computer: Speed, Storage, Versatility and Diligence –Hardware & Software. Block Diagram and Working Principle of Computer -Types of Computer: On the Basis of Working -Analog, Digital & Hybrid, on the Basis of Size -Main frame, Mini Computer, Super Computer, Workstation, Micro Computer, Desktop Computer, Laptop Computer, Palmtop Computer; On the basis of Processor–XT, AT & Pentium (i3, i5, i7)

UNIT II **(17 Hours)**

Memory: Units, Representation, Types -Primary memory and Secondary memory- CPU: Components of CPU - SMPS & Connecting wire -Graphics Card, Sound Card, Network Card –Modem; Input, Output devices- Connecting port –Serial, parallel port –USB port. Introduction to Industry 4.0 - Need – Reasons for Adopting Industry 4.0 - Definition – Goals and Design Principles – Technologies of Industry 4.0- Skills required for Industry 4.0- Advancements in Industry 4.0 – Impact of Industry 4.0 on Society, Business, Government and People - Introduction to 5.0.

UNIT III **(18 Hours)**

Overview of C - Introduction - Character set - C tokens - keyword & Identifiers - Constants - Variables - Data types - Declaration of variables - Assigning values to variables - Defining Symbolic Constants - Arithmetic, Relational, Logical, Assignment, Conditional, Bitwise, Special, Increment and Decrement operators -Understanding Boolean Representation in C Arithmetic Expressions - Evaluation of expression - precedence of arithmetic operators - Type conversion in expression – operator precedence & associativity - Mathematical functions - Reading & Writing a character - Formatted input and output.

UNIT IV **(18 Hours)**

Decision Making, Looping and Arrays, Decision Making and Branching: Introduction – if, if…. else, nesting of if …else statements- else if ladder – The switch statement, The?: Operator – The goto Statement. Decision Making and Looping: Introduction- The while statement- the do statement – the for statement-jumps in loops. Arrays – Character Arrays and Strings

UNIT V **(18 Hours)**

User-Defined Functions: Introduction – Need and Elements of User-Defined Functions- Definition-Return Values and their types - Function Calls – Declarations – Category of Functions- Nesting of Functions – Recursion – Passing Arrays and Strings to Functions - The Scope, Visibility and Lifetime of Variables- Multi file Programs. Structures and Unions, AI Techniques in C-Implement Linear Search & Binary Search in C.

Text Books

S. No.	Author Name	Book Name	Publisher	Year and edition
1.	E Balagurusamy	Computing Fundamentals & C Programming	Tata McGraw-Hill	2008 and 9th Edn

Reference Books

S. No.	Author Name	Book Name	Publisher	Year and edition
1.	Ashok N Kamthane	Programming with ANSI and Turbo C	Pearson	2015 and 3rd Edn.
2.	Henry Mullish & Hubert L.Cooper	The Sprit of C	Jaico	1998 and 1st Edn.

Pedagogy

- Lecture, PPT presentation, Quiz, Group Discussion, Seminar, Assignment, Activity based learning

Course Designers

1. Mrs. A. Sasikala
2. Mrs. L. Mahalakshmi

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP25CP1	OFFICE AUTOMATION AND INTERNET BASICS PRACTICAL	PRACTICAL	-	-	60	2

Preamble

To enable the students

- To give hands on training in basic computer applications.
- To inculcate programming ability to compute data.
- To aim at making experts in the most widely used application packages

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define the various practical applications using Libre office and Google workspace	**K1**
CLO2	Develop documents using the office writer	**K2**
CLO3	Inspect and utilize the appropriate Google workspace in real world	**K3**
CLO4	Analyse worksheets using advanced functions in office Calc	**K4**

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	M
CLO2	S	S	S	S	M
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M

S- Strong; M-Medium

OFFICE AUTOMATION AND INTERNET BASICS PRACTICAL- BP25CP1- 60 HRS

Ms Word

1. Create an article for the newspaper using the features: -
    a. Font size, font style, line spacing etc.
    b. Insert page numbers at the bottom right alignment
    c. Insert header consisting of date and time, insert footer consisting of page Numbers.
    d. Change the paragraph into two or three columns
    e. Check the spelling and grammar
    f. Use bullets and numbering
    g. Use drop cap
    h. Find and replace a word
2. Create a sales report using
    a. Formatting Styles
    b. Inserting table
    c. Changing Text Direction
    d. Cell alignment
    e. Footnote
    f. Hyperlink
    g. Symbols
3. Prepare a freshers day invitation using borders and shading option, word art and pictures.
4. Using mail merge, draft a company general body meeting letter for10 members.
5. Design an invoice using Drawing tool bar, Clip Art, margin, and page layout.

Ms Excel

6. Enter the data with following fields:
    a. Serial no
    b. Name
    c. Address
    d. City
    e. Date of Joining
    f. Salary
    g. Course
    h. Duration
    i. No of students
    j. Total fees

    Perform the following:
    a. Change font as bold
    b. Arrange the alignment as centre
    c. Rename the sheet
    d. Insert a new sheet
    e. Move a sheet
    f. Delete a sheet
    g. Hide/Unhide Column
    h. Change Column Width
    i. Split cells and freeze panes
7. Draw different graphs Column Chart, Line Chart, Pie Chart, Bar Chart, Area Chart, Scatter Chart, for a sample data.

8. Enter the semester marks of students using features count, total auto-sum and average using function wizard
9. Sorting: Sort by Colour, Reverse List, Randomize List , Boolean and logical Operators
10. Filter: Number and Text Filters, Date Filters, Advanced Filter, Data Form, Remove Duplicates, Outlining Data.
11. Advanced filtering with Multi criteria – including VLOOKUP, HLOOKUP

Internet Basics

12. Create a G meet for international conference to be held in your college using Google calendar with
    a. Title of the meet
    b. Date and Time of the meet
    c. Setting the reminder of the meet
    d. Share meeting id to the attendees
    e. Transfer the host of the meet
13. Create a folder Google Drive
    a. Rename the folder
    b. Upload the notes, assignment and study material of the core subject
    c. Share the folder to friends and tutor
    d. Set the permission to access folder
14. Create one-page story in your mother tongue by using voice recognition facility of Google Docs.
15. Create a quiz using Google Forms
    a. Rename the title of the form
    b. Create multiple choice questions
    c. Set the answer key for the question
    d. Assign marks, collect mail of the respondents and condition for submission
    e. Set the permission to edit and view the form
    f. Share the forms with others to attend the quiz
    g. Release the marks of the quiz

Pedagogy

Lecture, Demo in System

Course Designers:

1. Dr. C. Esakkiammal
2. Dr.A.Meenakshi

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
NME23ES	INTRODUCTION TO ENTREPRENEURSHIP	THEORY	30	-	-	2

Objectives:

- To introduce the fundamentals of entrepreneurship and the process of starting small industries.
- To understand the role of institutions, incentives, and subsidies in entrepreneurship development.
- To explore innovation, funding options, and intellectual property rights in business.
- To develop skills in project identification, formulation, appraisal, and report presentation.

Unit 1 **(6hrs)**

Entrepreneurship-Introduction-Factors-Barriers-Entrepreneurial Traits and Types-Steps for starting a Small Industry- MSMEs – Social entrepreneurship.

Unit 2 **(6hrs)**

Entrepreneurship Development Programmes-Institutional Framework (IFCI, ICICI, IDBI, IRBI, EXIM Bank, NSIC, SIDBI, SFC, SIPCOT AND TIIC) - Role of Incentives and Subsidies

Unit 3 **(6hrs)**

Innovation - Types –Role- Creative Problem Solving -Incubators - Angel Investors - Venture Capital.

Unit 4 **(6hrs)**

Intellectual Property- Meaning- Copy Right Registration- Patents- Trademark- Design and Procedure for registration.

Unit 5 **(6hrs)**

Project Preparation

Project identification and Classification - Project Formulation- Project Appraisal- Project Report Presentation.

Text Books

Sl. No.	Author(s)	Title of the Book	Publisher	Year of Publication& Edition
1.	Gupta. C.B and Srinivasan.N. P	Entrepreneurial Development	Sultan Chand and Sons	2020
2	Sauhari Vinnie and Bhushan Sudhashu	Innovation Management	Oxford	2014

Reference Books

Sl. No.	Author(s)	Title of the Book	Publisher	Year of Publication & Edition
1.	KolbBonitaM	Entrepreneurship for the creative and cultural industries	Routedge	2015
2.	P.T.Vijayashree & M.Alagammai	Entrepreneurship and Small Business Management	Margham	2020

SEMESTER II

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP25C03	RELATIONAL DATABASE MANAGEMENT SYSTEM	THEORY	88	2	-	4

Preamble

- The course introduces database concepts, models, and query languages. It helps students learn to design, use, and manage databases with SQL and modern database technologies.

Prerequisite

- Basic knowledge of computer fundamentals and Programming basics.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand the fundamental concepts and principles of database management systems.	K1
CLO2	Apply database design techniques, models, and query languages to organize and manage data.	K2
CLO3	Analyze database structures, queries, and operations to ensure efficiency, integrity, and reliability.	K3
CLO4	Evaluate advanced database technologies and their applications in solving real-world problems.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	M	S	S	S	M
CLO2	S	M	M	S	S
CLO3	S	S	S	L	M
CLO4	S	S	M	M	S

S-Strong; M-Medium; L-Low

RELATIONAL DATABASE MANAGEMENT SYSTEM – BP25C03 - 88 HRS

Unit I **(18 Hrs)**

Data, Databases, Database Management System - Ancient Indian Data Management Practices – Components of Database - Purpose of Database Systems – View of Data – Data Abstraction – Instances and Schemas - data Models – the ER Model - Data Dictionary – Architecture: Overall Architecture of DBMS, Three level architecture. Data Models - Types of Database models: Hierarchical Database Model, Network Database Model. Introduction Relational Database Management System: Relational Database Model, E-R model: Entities - Attributes – Relationships – E-R diagram – Samples.

Unit II (**17 Hrs**)

Database Languages – DDL – DML – database Access for applications Programs – data base Users and Administrator – Transaction Management – Storage Manager – the Query Processor. Data base design and ER diagrams – ER Model - Entities, Attributes and Entity sets – Relationships and Relationship sets – ER Design Issues – Concept Design – Conceptual Design for University Enterprise. Introduction to the Relational Model – Structure – Database Schema, Keys – Schema Diagrams.

Unit III (**18 Hrs**)

CODD's rules – Components of DBMS – Table Structure – Records, rows, tuples, attributes. Keys: Primary key, foreign key, composite key. Metadata – Data Dictionary – Data Integrity – Data constraints and validation – Types of constraints. Normalization Benefits – Normal forms: 1st Normal form, 2nd Normal form, 3rd Normal form. Introduction to SQL: SQL data types - Data Definition Commands – Data Manipulation Commands – Data retrieval commands. MySQL Operators and Expressions Types of Operators – Arithmetic, Comparison and logical operators –Pattern matching.

Unit IV **(17 Hrs)**

Relational Query Languages, Relational Operations. Relational Algebra – Selection and projection set operations – renaming – Joins. Overview of the SQL Query Language – Basic Structure of SQL Queries, Set Operations Built-in Functions Single row functions – Aggregate functions –. Querying the table selecting rows using Where, Order by, group by & having clauses. Sub-queries – correlated sub-queries – GROUPBY – HAVING, Nested Sub queries, Views, Trigger and Stored Procedures.

Unit V **(18 Hrs)**

Introduction to Data warehousing and Data mining – Applications – Data marts. Big Data: Definition – Characteristics – Various Technologies used – Applications - AI in query optimization. Distributed Database Management Systems (DDBMS) – Components, Architecture, and Data Distribution – Data Fragmentation, Replication, and Allocation – Distributed Query Processing & Optimization – Concurrency Control & Transaction Management – Parallel Databases: Query Execution, Load Balancing – Sorting & Indexing in DDBMS – Object-Oriented Databases: Features, Data Modeling, and Real-World Applications

Textbook

S.No	Authors	Title	Publishers	Year and Edition
1	Abraham Silberschatz, Henry F. Korth, and S. Sudarshan	Data base System Concepts	McGraw-Hill Education (India Pvt. Ltd.)	2010 and 6th Edn.
2	Ramon A Mata-Toledo Pauline KCushman	Database Management System	Tata Mc Graw- Hill Publishing company limited, New Delhi.	2010 and 2nd Edn.
3	Riktesh Sri Vastava, Rajita SriVatsava	Relational Database Management	New Age International Publications	2014 and 1st Edn.

Reference Books

S.No	Authors	Title	Publishers	Year and Edition
1	Ramakrishnan & Gehrke	Database Management Systems	Tata Mc Graw Hill	2009 and 8th Edn.
2	Nilesh Shah	Database Systems using Oracle	PHI learning Pvt Ltd	2014 and 2nd Edn.
3.	Spectrum all in One	Relational Database Management System	SIA Publishers and Distributors	2021 and 2ndEdn.

Skill Components

- Understand database concepts, models, architectures, and ER design.
- Develop skills in writing SQL (DDL, DML) and designing relational schemas.
- Apply keys, constraints, and normalization techniques for data integrity.
- Gain proficiency in advanced SQL features (joins, subqueries, triggers, procedures).
- Acquire knowledge of advanced concepts like data warehousing, big data, distributed and object-oriented databases for real-world applications.

Pedagogy

- Lecture through power point presentations, Discussion, Assignment, Quiz, and Seminar.

Course Designers

1. Mrs.A.Sasikala,
2. Mrs.L.Mahalakshmi,

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
CM25C04	FINANCIAL ACCOUNTING	THEORY	73	2	-	3

Preamble

- To enable the students to apply the conceptual principles in financial Accounting and to develop an expertise in handling the accounts and thereby to increase their level of understanding about the financial statements relating to partnership firms, Branch and Departmental accounting.

Prerequisite

- Basic Knowledge in accountancy

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Define the concepts of Partnership Firms, the accounting treatment of Partnership Firms	K1
CLO2	Describe the procedures related to partnership firms, calculation of Insolvency Accounts	K2
CLO3	Apply appropriate accounting treatments in partnership accounts, hire purchases Installment system , Branch and Departmental accounts	K3
CLO4	Evaluate the financial impact of hire purchases Installment system , Branch and Departmental accounts	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	M	M	S
CLO2	S	S	M	M	S
CLO3	S	S	S	S	M
CLO4	S	S	S	S	M

S-Strong; M-Medium

FINANCIAL ACCOUNTING – CM25C04 - 73 Hrs

Unit I **(15Hrs)**

Partnership Accounts: Division of Profits – Fixed & Fluctuating Capital – Past Adjustments – Guarantee of Profits –Admission of a partner - Treatment of Goodwill - Calculation of Hidden Goodwill.

Unit II **(14Hrs)**

Retirement of a Partner: Retirement Cum Admission – Death of a partner-Joint Life Policy– Accounting Treatment

Unit III **(15Hrs)**

Dissolution of Partnership - Methods – Settlement of Accounts Regarding Losses and Assets – Realization account – Treatment of Goodwill – Preparation of Balance Sheet - One or more Partners insolvent – All Partners insolvent – Application of Garner Vs Murray Theory – Accounting Treatment - Piecemeal Distribution – Surplus Capital Method – Maximum Loss Method.

Unit IV **(15Hrs)**

Hire Purchase and Installment System -Hire Purchase System – Accounting Treatment –Calculation of Interest - Default and Repossession - Hire Purchase Trading Account-Installment System - Calculation of Profit

Unit V **(14Hrs)**

Branch and Departmental Accounts :Branch – Dependent Branches: Accounting Aspects - Debtors system -Stock and Debtors system – Distinction between Wholesale Profit and Retail Profit – Independent Branches (Foreign Branches excluded) - Departmental Accounts: Basis of Allocation of Expenses – Inter- Departmental Transfer at Cost or Selling Price.

Textbook

S.No	Authors	Title	Publishers	Year and Edition
1.	Reddy TS & A Murthy	Financial Accounting	Margham Publications	2023 and Revised 6th edn.

Reference Books

S.No	Authors	Title	Publishers	Year and Edition
1.	RL Gupta & Radhasamy	Advanced Accountancy (Vol I)	Sultan Chand & Sons.	2020 and 13th edn.
2.	Jain S.P & Narang K.L	Principles of Accountancy	Kalyani Publishers	2021 and 13th edn.
3.	MC Shukla,T.S.Grewal & S.C. Gupta	Advanced Accountancy	S. Chand &sons	2021 and 14th edn.

Skill Components

- Working on practical aspects of admission and retirement with partners' capital.
- Preparation of partnership deed with important terms and conditions.
- Preparation of deficiency statement for a real time partnership firm.
- Calculation of hire purchase accounts on real time basis.
- Preparation of branch and departmental accounts.

Pedagogy

- Lecture, PPT, Assignment, Seminar, Group Discussion, Activity based Learning

Course Designers

1. Dr. G.Indrani
2. Dr.L.Nithya

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
BP25CP2	DATABASE PROGRAMMING PRACTICAL	PRACTICAL	-	-	60	2

Preamble

- To enhance practical knowledge in Database Management

Course Learning Outcomes

- On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Recall basic SQL concepts such as database, table, and field definitions.	K1
CLO2	Understand the basics of SQL – creating databases, tables, and performing simple operations.	K2
CLO3	Apply SQL commands like joins, conditions, grouping, and aggregate functions.	K3
CLO4	Analyze and implement advanced SQL features – procedures, triggers, and transactions.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	S	S	S	S
CLO2	S	S	S	S	S
CLO3	S	S	S	S	M
CLO4	S	S	S	S	L

S-Strong; M-Medium; L-Low

DATABASE PROGRAMMING PRACTICAL –BP25CP2- 60 Hrs

1. Create a database named College DB. Then, create a table Students with the following fields:

- StudentID INT PRIMARY KEY
- Name VARCHAR(50) NOT NULL
- DOB DATE
- Marks INT

a.To create a table
b.To describe a table
c.To insert values
d.To retrieve records
e.To update records
f. To delete records
g.To drop a table
h.To truncate a table
i. Retrieve students who scored above 80.

2. Create two tables with a foreign key relationship:

Departments

- DeptID INT PRIMARY KEY
- DeptName VARCHAR(50)

Employees

- EmpID INT PRIMARY KEY
- EmpName VARCHAR(50)
- DeptID INT FOREIGN KEY REFERENCES Departments(DeptID)

Write a query to list all employees along with their department names using INNER JOIN.

3. Create a table "Product" with the following fields and insert the values

Table: **Product**

Prodno	number(6)
Prodname	varchar2(15)
Unitofmeasure	varchar2(15)
Qty	number(6, 2)
Rate per unit	number (8,2)
Totamt	number(8, 2)

Queries:

a.Using update statements calculate the total amount and then select the record.

b.Select the records whose unit of measure is Kg

c.Select the records whose quantity is greater than10 and less than or equal to 20

d.Calculate the entire total amount by using sum operation.

e.Calculate the number of records whose unit price is greater than 50 with count operation

4. Create a table Salaries:

- EmpID INT PRIMARY KEY
- EmpName VARCHAR(50)
- Salary DECIMAL(10,2)
- DeptID INT

Write a query to find the average salary per department using GROUP BY.

5. Create the table Payroll with the following fields and insert the values**:**

Table: **Payroll**

Empno	number(8)
Empname	varchar2(8)
Dept	varchar2(10)
Basic pay	number(8, 2)
HRA	number(6, 2)
DA	number(6, 2)
PF	number(6, 2)
Net pay	number(8, 2)

Queries:

a. Update the records to calculate the net pay.

b. Arrange the records of the employees in ascending order of their net pay.

c. Display the details of the employees whose department is Sales.

d. Select the details of employees whose HRA>=1000 and DA<=900.

e. Select the records in descending order.

6. Create a table Deposit and Loan with the following fields:

Table: **Deposit**

Acc no	number(3)
Account Type	varchar2(6)
Branch Name	varchar2(15)
Cust name	varchar2(20)
Balance amt	varchar2 (10)

Table: **Loan**

Loan no	number(5)
Bname	varchar2(15)

Custname	varchar2(30)
Loanamt	number(10)

Queries:

a. Insert the records into the table.

b. Describe the structure of the table.

c. Display the records of Deposit and Loan.

d. Find the number of loans with amount between 10000 and 50000.

e. List in the alphabetical order the names of all customers who have a loan at the Coimbatore branch.

f. Find the average account balance at the Coimbatore branch.

g. Update deposits to add interest at 5% to the balance.

h. Arrange the records in descending order of the loan amount.

i. Find the total amount of deposit in —Trichy branch.

7. Create the course and batch table with following fields

Table: **Course**

Course no	**number(5) primary key**
Course name	varchar2(20)
Fees	Number (8,2)

Table: **Batch**

Batch no	**number(5) primary key**
Course no	number(5)foreign key
Start date	Date
Duration	varchar2(15)

Queries:

a.Insert values and display the records

b.Display the records from batch table whose Course no is —9

c.Display the Course no, Course name for the batch starting from —25 June 2000

d.List Batch no for the batch starting before —30th June 2001 and after —December 2001

e.List the details of the batch who have joined before the end of —September 2001

8. Create Employee and Department table with following fields

Table: **Employee**

E no	number(5) primary key
E name	varchar2(20)not null

Dept no	number(2)not null
Desig	char(10) not null
Sal	number(9, 2)not null
Comm.	number(7,2)null
PF	Number (9,2)

Table: Department

Dept no	varchar2 (15) primary key
Dept name	varchar2(15)

Queries:

a. Display the details of department table

b. List the name, salary and PF amount of all the employees(PF is calculated as 10% of salary)

c. List the department numbers and number of employees in each department (Groupby)

d. List the average salary from each job excluding managers

e. List the jobs and the number of employees in each job. The result should be in descending order of the number of employees

f. List the employees who are eligible for 5% commission whose salary >25000

g. List the names of the employees who are not managers

9. Create Employee Salary and Department table with following fields

Table**: Employee_Salary**

Eno	number(5) primary key
Ename	varchar2(20)not null
Deptno	number(2)not null
Desig	char(10) not null
Sal	number(9, 2)not null
Comm.	number(7,2)null
Shift	Varchar2(15)

Table: Department

Deptno	varchar2 (15) primary key
Deptname	varchar2(15)

Queries:

a. List the department number and the total salary payable in each department

b. List the total salary, maximum and minimum salary and the average salary of employees designation wise

c. Display the emp no, name whose shift is —FN

d. List average salary for all departments employing more than five people

e. List jobs of all the employees where maximum salary is greater than or equal to 5000(having)

f. Raise employee salary by 0.15 for the employees working as —programmers

g. Delete the records where commission is —null
h. List the average salary and number of employees working in the department —20

10. Create Library with the following fields

Table**: Library**

Bookno	number(5)
Booknm	varchar2(10)
Authornm	varchar2(10)
Price	number(3,8)
Status	varchar2(5)
Category	varchar2(5)

Queries:

a. Display the author name, price of tax book
b. Display the price of book banking
c. Display the count of category —commerce
d.List the book details in ascending order of price (order by)
e.List the book details in descending order of book no and price (order by)

11. Create a simple student marks processing using parallel-style logic on two separate tables

a) Com_Student – table name

student_id	UNSIGNED, INT, AUTO INCREMENT, PRIMARY KEY
First_name	VARCHAR (60)
Last_name	VARCHAR (60)
Marks	INT (5)

b) IT Student -table name

Student_id	FOREIGN KEY refers to user_id field of user table
first_name	VARCHAR(60)
last_name	VARCHAR (60)
Marks	INT (5)

a. SELECT all the users along with their marks to calculate Parallel-style Query (Combine & Calculate Average)

b. List the students who scored more than 80 in any department using Parallel-Style Filter.

12. Sales in Multiple Regions (East & West) using Distributed Database style.

Table : **East_region**

Sales_id	INT PRIMARY KEY
Produt_name	VARCHAR(20)
City	VARCHAR(20)
Amount	Numeric(12,2)

Table: **West_region**

Sales_id	INT PRIMARY KEY
Produt_name	VARCHAR(20)
City	VARCHAR(20)
Amount	Numeric(12,2)

Queries:

a. Retrieve the Query: Show All Sales from Both Branches.

b. Retrieve all the Sales Above ₹10,000 from both the regions.

c. Find the Highest Sale in Each Region.

13. Create a stored procedure Update Marks that updates a student's marks based on their ID. Use the Students table with fields:

- StudentID
- Name
- Marks

14. Create a trigger on the Students table that logs deletions into a new table Deleted Students:

- StudentID
- Name
- DeletedOn (DATE)

15. Using the Bank Accounts table:

- AccountID INT PRIMARY KEY
- HolderName VARCHAR(50)
- Balance DECIMAL(10,2)

Simulate a fund transfer between two accounts using BEGIN TRANSACTION, COMMIT, and ROLLBACK.

Pedagogy

➢Lecture, Demo in System

Course Designers

1. Mrs. A. Sasikala
2. Mrs. L. Mahalakshmi

COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CREDIT
NM25UHR	UNIVERSAL HUMAN VALUES AND HUMAN RIGHTS	THEORY	30	-	-	2

This course is designed to inculcate a deep understanding of Universal Human Values, Rights and Ethics in a holistic means, while also addressing essential aspects that support resilience during challenges and contribute to overall personality development.

Objectives

This course focuses on exploring the meaning, purpose, and significance of Universal Human Values and Ethics. It aims to guide learners in consciously adopting and practicing these principles to foster personal growth, become compassionate and ethical individuals, and expose their full potential.

Unit I : Introduction to value Education

Education system in India, value erosion at various levels-personal, family, society, national and international, Values-concept and need, Types of values- personal, family, society and Universal**,** importance of value education, Incorporating Universal Human Values in Higher Education**:** Universal values-love, truth, non-violence, peace and righteousness.

Unit II: Promoting Universal Human Values

Harmony in the Human Being: Understanding the Human Being as Co-existence of Self ('I') and Body, Discriminating between the Needs of the Self and the Body, The Body as an Instrument of 'I', Understand Harmony in the Self ('I'), Harmony of the Self ('I') with the Body.

Harmony in the Family and Society: Harmony in the Family - the Basic Unit of Human Interaction, Values in Human-to-Human Relationships, 'Trust' – the Foundational Value in Relationships, 'Respect' – as the Right Evaluation, Understand Harmony in the Society.

Harmony in the Nature (Existence): Understand Harmony in the Nature, Interconnectedness, Self-regulation and Mutual fulfilment among the Four Orders of Nature, realizing 'Existence is Co-existence' at All Levels, The Holistic Perception of Harmony in Existence.

Unit III: Holistic Well-Being

Influence of universal human values on holistic wellbeing – Definition of well-being (state of being comfortable, healthy, happy and equanimity) - Types of Wellbeing: Hedonic (Subjective) and Eudaimonic (Psychological) - 8 Pillars of Holistic Wellness- (Physical, Emotional, Social, Spiritual, Intellectual, Occupational, Financial, Environment) – Resilience: Meaning and definition of Resilience - Learning from setbacks, well-being and resilience.

Unit IV: Professional Ethics

Professional Ethics: Introduction, Importance, Understanding Ethical Principles in various Disciplines (Arts & Science stream), Ethical decision-making frameworks, Core values: integrity, objectivity, professional competence, confidentiality, and professional behaviour; Ethics in the Digital Age: Ethical challenges in the use of technology and data, Privacy, confidentiality, and information security, Ethical considerations in social media and online professional conduct.

Unit V: Indian Constitutional Values

Human Rights: Meaning, characteristics of Human Rights, Human Rights and UNO, UDHR- Universal Declaration of Human Rights, Indian Constitution- Preamble, Fundamental Rights, fundamental duties; Right to Information Act (RTI), National Human Rights Commission (NHRC), State Human Rights Commission, Tamil Nadu; Role of Higher Educational Institutions in promoting Constitutional Values among students.