

PGDCA

SEM	COURSE CODE	COURSE	COURSE TITLE	INS. HRS	CREDIT	MARKS		TOTAL
						CIA	ESE	
I	20PDCA1CC1	Core I	Programming in C	6	4	25	75	100
	20PDCA1CC2	Core II	Principles of Accountancy	6	4	25	75	100
	20PDCA1CC3	Core III (A)	Office Automation	4	3	10	40	50
	20PDCA1CC3P	Core III (B)	Office Automation Lab - Practical	2	1	10	40	50
	20PDCA1CC4	Core IV (A)	Editing Tools	4	3	10	40	50
	20PDCA1CC4P	Core IV (B)	Editing Tools Lab - Practical	2	1	10	40	50
	20PDCA1CC5P1	Core V (A)	C Programming Lab - Practical	3	2	10	40	50
	20PDCA1CC5P2	Core V (B)	Accounting Package Lab - Practical	3	2	10	40	50
	TOTAL			30	20			500
II	20PDCA2CC6	Core VI	Visual Programming	6	4	25	75	100
	20PDCA2CC7	Core VII(A)	Database Management Systems	4	3	10	40	50
	20PDCA2CC7P	Core VII(B)	RDBMS Lab - Practical	2	1	10	40	50
	20PDCA2CC8	Core VIII(A)	Shell Programming	4	3	10	40	50
	20PDCA2CC8P	Core VIII(B)	Shell Programming Lab - Practical	2	1	10	40	50
	20PDCA2CC9	Core IX	Web Design	6	4	25	75	100
	20PDCA2CC10P1	Core X(A)	Web Design Lab - Practical	3	2	10	40	50
	20PDCA2CC10P2	Core X (B)	Visual Programming Lab - Practical	3	2	10	40	50
	TOTAL			30	20			500
GRAND TOTAL				60	40			1000

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
I	20PDCA1CC1	CORE – I	PROGRAMMING IN C	6	4	100	25	75

Course Outcomes (CO):

Students will be able to

1. Use C language as the base for higher level course in programming
2. Acquire the basic constructs of programming languages.
3. Apply structured approach in program design
4. Apply suitable logic in solving problems
5. Develop applications to solve real world problems

UNIT I

18 hours

Getting Started with C - C Instructions – Decision Control Structure: The if Statement – The if-else Statement - Use of Logical Operators - Use of Logical Operators – # The Conditional Operators #.

UNIT II

18 hours

Loop Control Instruction – Loops – The while Loop – The for Loop – The break Statement – The continue Statement – The do-while Loop – The odd Loop – Decisions using switch – #The goto keyword#

UNIT III

18 hours

Functions: Passing Values between Functions – Scope Rule of Functions – #Using Library Functions#. Pointers: Call by Value and Call by Reference – An Introduction to Pointers – Pointer Notation.

UNIT IV

18 hours

Arrays – Pointers and Arrays – Multidimensional Arrays: Two-Dimensional Arrays – Arrays of Pointers – #Three-Dimensional Array# – Strings – Pointers and Strings – Standard Library String Functions –

UNIT V

18 hours

Structures –File Input / Output – Data Organization – File Operations – Counting Characters, Tabs, Spaces – A File-Copy Program – File Opening Modes – #Record I/O in Files#.

..... # Self-study portion

Text Book:

Yashavant Kanetkar, Let Us C, BPB Publications, New Delhi, Fifteenth Edition, 2017.

UNIT I : Chapters 1, 2, 3 & 4

UNIT II : Chapters 5, 6 & 7

UNIT III : Chapters 8 & 9

UNIT IV : Chapters 13, 14 & 15

UNIT V : Chapters 17 & 19

Books for References:

1. E. Balagurusamy, *Programming in ANSI C*, Tata McGraw Hill Education Private Ltd., Fifth Edition, 2011.
2. D. Ravichandran, *Programming in C*, New Age International (P) Ltd., First Edition, 1996.

Web Reference:

<https://www.programiz.com/c-programming>

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Course				Hours	Credits			
I	20PDCA1CC1	PROGRAMMING IN C				6	4			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓		✓		✓		
CO2	✓	✓				✓	✓	✓	✓	
CO3	✓	✓	✓	✓		✓	✓	✓	✓	
CO4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of matches (✓) = 40, Relationship: High										

Prepared by:

1. O. S. Abdul Qadir

Checked by:

1.Dr. A.R. Mohamed Shanavas

Note:

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very poor	Poor	Moderate	High	Very high

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
I	20PDCA1CC2	CORE – II	PRINCIPLES OF ACCOUNTANCY	6	4	100	25	75

Course Outcomes(CO):

Students will be able to

- 1: Acquire the basic principles of accounting
- 2: Develop the accounting practices with relevance to Indian Accounting Standards
- 3: Evaluate subsidiary books of accounts
- 4: Find out the positions of debit aspects and credit aspects
- 5: Prepare the financial statements and to evaluate the performance of a sole proprietary concern

UNIT I

18 hours

Definition of Accounting – Meaning and Objects – Accounting Concepts and Conventions – Double Entry System – Advantages and Disadvantages – Difference between Double Entry System and Single Entry System

UNIT II

18hours

Journal – Transaction Analysis for Journal entries – Ledger - Account – Posting of Journal to Ledger – Balancing of Ledger Accounts – # **Distinction between Journal and Ledger #.**

UNIT III

18hours

Subsidiary Books – Purchases Book, Purchases Returns Book, Sales Book and Sales Returns Book and simple cash book (cash column only).

UNIT IV

18hours

Trial Balance – Meaning - # **Objects and its preparation #.**

UNIT V

18hours

Final Accounts of Sole Trader with Simple Adjustments – Closing Stock, Outstanding Expenses, Prepaid Expenses, Depreciation and Bad debts.

..... # Self-study portion

Text Book:

1. R.L.Gupta& M. Radhaswamy - Advanced Accountancy, Sultan Chand & Sons, New Delhi.
2. R.S.N.Pillai, Bagavathi& S. Uma- Fundamentals of Advanced Accounting (Financial Accounting), S. Chand & Company Ltd, New Delhi.

Books for References:

1. T.S. Reddy & A. Murthy - Financial Accounting, Margham Publications, Chennai.
2. S.P. Jain & K.L. Narang - Advanced Accountancy, Kalyani Publications, New Delhi.
3. M. C. Shuckla, T. S. Grewal & S.C. Gupta – Advanced Accounts, S.Chand& co, New Delhi.

Web Reference:

1. <http://www.ddegjust.ac.in/studymaterial/bba/bba-104.pdf>
2. https://icmai.in/upload/Students/Syllabus2012/Study_Material_New/Foundation-Paper2-Revised.pdf
3. <https://www.icsi.edu/media/webmodules/publications/FULL%20FAA%20PDF.pdf>

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Course				Hours	Credits			
I	20PDCA1CC2	PRINCIPLES OF ACCOUNTANCY				6	4			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓			✓	✓	✓	✓	✓	✓	
CO2	✓	✓	✓		✓	✓	✓	✓	✓	
CO3	✓	✓	✓	✓		✓		✓	✓	✓
CO4		✓	✓	✓	✓	✓	✓		✓	✓
CO5		✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of matches (✓) = 40, Relationship: High										

Prepared by:

1. Dr. G. Pasupathi

Checked by:

1. Dr. A.R. Mohamed Shanavas

Note:

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very poor	Poor	Moderate	High	Very high

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
I	20PDCA1CC3	CORE – III(A)	OFFICE AUTOMATION	4	3	50	10	40

Course Outcomes (CO):

Students will be able to

1. Give basic idea of MS –OFFICE.
2. Provide hands on training to the students to get acquainted in working with MS-Word
3. Provide hands on training to the students to analyze data using MS-Excel
4. Gain knowledge on attractive presentation using MS-PowerPoint
5. Understand how to store and access data using MS-Access

UNIT I

12 hours

Introducing Microsoft Office 2013: Starting an Office 2013 Program-Introducing the Microsoft Office Ribbon- Using the Ribbon-Using the Quick Access Toolbar- Customizing an Office 2013 Program. Selecting and Editing Data: Selecting Data - Editing Text with the Pop-up Toolbar- Deleting Data-Cutting and Pasting (Moving) Data-Copying and Pasting Data-Using Paste Options-Undo and Redo-# **Sharing Data with Other Office 2013 Programs**#. Modifying Pictures: Adding (and Deleting) Pictures-Manipulating Pictures-Enhancing Pictures.

UNIT II

12 hours

Typing Text in Word: Moving the Cursor with the Mouse-Moving the Cursor with the Keyboard-Navigating through a Document-Finding and Replacing Text-Checking Your Spelling-Checking Your Grammar-Viewing a Document. Formatting Text: Changing the Font-Changing the Font Size-Changing the Text Style-Changing Colours-Justifying Text Alignment-Adjusting Line Spacing-Making Lists-Using the Ruler-Using Format Painter. Designing Your Pages: Inserting New Pages-Adding (and Deleting) a Cover Page-Inserting Headers and Footers-Organizing Text in Tables-Sorting a Table-#**Making Text Look Artistic** #-Dividing Text into Columns.

UNIT III

12hours

The Basics of Spreadsheets Numbers, Labels, and Formulas: Understanding Spreadsheets-Storing Stuff in a Spreadsheet-Formatting Numbers and Labels-Navigating a Spreadsheet-Searching a Spreadsheet-Editing a Spreadsheet-Printing Workbooks. Playing with Formulas: Creating a Formula-Using Functions-Conditional Formatting-Auditing Your Formulas. Charting and Analyzing Data: Understanding the Parts of a Chart-Creating a Chart-Editing a Chart-Using the Chart Tools-#**Organizing Lists in Pivot Tables** #.

UNIT IV

12hours

Creating a PowerPoint Presentation: Creating a PowerPoint Presentation-Working with Text. Adding Colour and Pictures to a Presentation: Applying a Theme-#**Changing the Background** #-Adding Graphics to Slide-Adding Movies to a Slide-Adding Sound to a Slide. Showing off a Presentation: Organizing Slides in Sections-Adding Visual Transitions-Adding Hyperlinks-Viewing a Presentation.

UNIT V

12hours

Calendars, Contacts, and Tasks: Setting Appointments-Storing Names and Addresses. Using a Database: Understanding the Basics of a Database-Designing a Database-Editing and Modifying a Database-Typing Data into a Database-#**Closing and Saving Database** #. Creating a Database Report- Using the Report Wizard- Manipulating the Data in a Report.

..... # Self-study portion

Text Book:

Office 2013 FOR DUMMIES by Wallace Wang Published by John Wiley & Sons, Inc.

UNIT I : Chapters 1, 2 & 3

UNIT II : Chapters 5, 6 & 7

UNIT III : Chapters 8, 9 & 10

UNIT IV : Chapters 11, 12 & 13

UNIT V : Chapters 15, 16 & 18

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code		Title of the Course			Hours		Credits		
I	20PDCA1CC3		OFFICE AUTOMATION			4		3		
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓		✓	✓	✓	✓	✓	✓		
CO2	✓	✓		✓	✓	✓	✓	✓		
CO3	✓	✓		✓	✓	✓	✓	✓		✓
CO4		✓	✓	✓	✓	✓	✓	✓	✓	
CO5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of matches (✓) = 40, Relationship: High										

Prepared by:

1.A.M.S. Zunaitha Sulthana

Checked by:

1. Dr. A.R. Mohamed Shanavas

Note:

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very poor	Poor	Moderate	High	Very high

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
I	20PDCA1CC3P	CORE – III(B)	OFFICE AUTOMATION LAB	2	1	50	10	40

1. Prepare Circular Letter using font size and styles - bold, underline, upper case, lower case, superscript and subscript.
2. Create Invoice /Bill by using table option.
3. Prepare a newsletter with two columns text, header and footer, inserting a graphic image and page layout.
4. Use mail merge facility for sending a circular letter to many persons.
5. Create a chart for comparing the monthly sales of a company in different branch offices using spread sheet.
6. Prepare student mark list information and use Sorting data, Filtering Data options in spread sheet.
7. Prepare an Inventory bill for a company by using built in functions.
8. Create a new presentation for welcome address using templates and different text formats.
9. Create 5 Slide presentation of your own and do the following (a) Insert Pictures (b) Insert video.
10. Create a slide to display a graph for a given simple data.
11. Using Access create a Employee Database.
12. Using Access, create your own table and do the following (a) Editing table (b) Adding Field (c) Deleting fields.

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
I	20PDCA1CC4	CORE – IV (A)	EDITING TOOLS	4	3	50	10	40

Course Outcomes (CO):

Students will be able to

1. Get basic concepts of Editing.
2. Acquire knowledge on video and animation.
3. Implement the concepts of Flash.
4. Provide experience on image editing
5. Impart the practical experience in editing and mixing audio.

UNIT I

12 hours

Workspace and workflow: Workspace basics -Panels and menus –Tools -Rulers. Image and color basics: Image essentials-Image size and resolution-Creating, opening, and importing images-Viewing images-Choosing colors in the color and Swatches panels. Layer:Layer basics-Selecting, grouping, and linking layers-Appling Smart Filters. Image adjustment:**# Convert a color image to black and white #.**

UNIT II

12hours

Video and animation: Video and animation overview-Creating frame animations-Creating timeline animations-Creating images for video-Saving and exporting video and animations-Editing video and animation layers-Importing video files and image sequences-Painting frames in video layers-Previewing video and animations. Filters and effects:Photographic blur gallery-Add Lighting Effects-Filter effects reference - **#saving and exporting#**: saving images-Creating web photo galleries.

UNIT III

12hours

Drawing in Flash:About drawing-Drawing modes and graphic objects-About inverse kinematics-About the Timeline-Move the play head - **# working with symbols#**.Animation:Animation basics-Motion tween animation-Using sounds in Flash-Graphic filters.

UNIT IV

12hours

Drawing and Painting: Strokes, fills, and gradients-Draw simple lines and shapes-3D graphics-Color-Drawing in Flash-Video - **#Find and Replace#**.

UNIT V

12hours

Essentials of video editing-Adding Transitions-Advanced Editing Techniques-Editing and Mixing Audio-removing background noise with adobe audition- Adding Video Effects- **# Creating Titles#**.

..... # Self-study portion

Text Book:

1. ADOBE® PHOTOSHOP Help and tutorials by Adobe -February 2013

UNIT I : Chapter 3,4,5 & 7

UNIT II : Chapter 13, 14&15

2. ADOBE® FLASH® PROFESSIONAL Help and tutorials--February 2013

UNIT III : Chapter 2, 3, 4 and 5

UNIT IV : Chapter 9

3. Adobe premiere Pro, CLASSROOM IN A BOOK by Adobe

UNITV : Chapter 5, 7, 8, 11 and 13

Books for References:

Web Reference:

https://help.adobe.com/archive/en/photoshop/cs6/photoshop_reference.pdf

https://help.adobe.com/archive/en/flash/cs6/flash_reference.pdf

<https://igorkovalov1993.files.wordpress.com/2013/01/adobe-premiere-pro-cs6-classroom-in-a-book.pdf>

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Course				Hours	Credits			
I	20PDCA1CC4	EDITING TOOS				4	3			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1		✓		✓	✓	✓		✓	✓	✓
CO2	✓	✓	✓	✓	✓		✓	✓	✓	✓
CO3	✓	✓	✓	✓	✓		✓	✓	✓	✓
CO4	✓		✓	✓	✓	✓	✓	✓	✓	✓
CO5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of matches (✓) = 44, Relationship: High										

Prepared by:

1. A.M.S. Zunaitha Sulthana

Checked by:

1. Dr. A.R. Mohamed Shanavas

Note:

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very poor	Poor	Moderate	High	Very high

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
I	20PDCA1CC4P	CORE – IV(B)	EDITING TOOLS LAB	2	1	50	10	40

PHOTOSHOP

1. To Design a Photoshop using Various selection tools
2. To demonstrate the layer effect.
3. To convert coloring image to Black and white picture
4. To animate a candle flame using liquify tool.

FLASH

5. To Create Animation using motion tween.
6. To Bouncing ball using flash
7. To Create Animation using layer.
8. To Create Text morphing using flash

PREMIER PRO

9. In video editing change color and brightness.
10. To Changing the speed/duration of a clip.
11. To removing background noise with adobe audition
12. To applying audio transitions

Prepared by:

1. A.M.S. Zunaitha Sulthana

Checked by:

1. Dr. A.R. Mohamed Shanavas

Note:

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very poor	Poor	Moderate	High	Very high

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
I	20PDCA1CC5P1	CORE – V(A)	C PROGRAMMING LAB	3	2	50	10	40

Develop a program in C

1. To calculate area and perimeter of square and rectangle.
2. Using assignment statements.
3. To implement the Nested if-else statement.
4. To demonstrate Logical operators
5. Using While, Do-While & For Loop to print Sum of Series.
6. To perform mathematical operations using Switch
7. To illustrate the use of Functions
8. To swap two numbers using Pointers
9. To make use of arrays.
10. To handle String Functions.
11. To demonstrate Array of Structures.
12. To generate student mark sheet using File.

Prepared by:

1. O. S. Abdul Qadir

Checked by:

1. Dr. A.R. Mohamed Shanavas

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
I	20PDCA1CC5P2	CORE – V(B)	ACCOUNTING PACKAGE LAB	3	2	50	10	40

1. Architecture and customization of Tally -- Configuration of Tally.
2. Tally Screens and Menus
3. Creation of new company and groups
4. Ledger Creation
5. Preparation of voucher entries
 - a. Payment voucher
 - b. Receipt voucher
 - c. Sales voucher
 - d. Purchase voucher
 - e. Contra voucher
 - f. Journal voucher
6. Preparation of Trail balance
7. Preparation of Profit and loss statement.
8. Preparation of Balance Sheet
9. Preparation of Bank Reconciliation Statement
10. Creation of inventory reports
 - a. Stock groups
 - b. Stock items
 - c. Unit measurement
 - d. single and multiple Godown

Prepared by:

1. DR. G. Pasupathi

Checked by:

1. Dr. A.R. Mohamed Shanavas

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
II	20PDCA2CC6	CORE – VI	VISUAL PROGRAMMING	6	4	100	25	75

Course Outcomes (CO):

Students will be able to

1. Acquire knowledge about Event Driven in GUI
2. Use VB as the base for higher level courses
3. Knowledge to connect with database
4. Knowledge to generate reports in a software
5. Able to develop applications.

UNIT I

18 hours

Visual Basic Definition - Features of Visual Basic – The Visual Basic Philosophy – Developing an Application. **Creating an Application:** The Tool Box – Project Explorer – The properties Window – The Form Window– What does Visual Basic 6 have for you to create applications. IDE, Forms and Controls: The Form.

UNIT II

18 hours

Variables in Visual Basic - **Writing Code in Visual Basic:** The Code Window – The Anatomy of a Procedure – Editor Features – For....Next Statement – Decision Maker. If – Loop – While Loop – **# Select Case.....End Select #.**

UNIT III

18 hours

Working with files: Visual Basic File System Controls – Types of Files – Working with Files – Menus – Building the User Interface – All about Menus. **Multiple Document Interface Applications:** Features of an MDI Form – Loading MDI Forms and Child Forms –**# The ActiveForm Property #.**

UNIT IV

18 hours

Debugging Tips: Objectives - The Debugging Methods – The Common Dialog Control. **Additional Controls in VB 6.0:**SSTab Control – Working with SSTab Control – Setting Properties at run time – Adding controls to Tab – The TabOrientation Property – The ImageList control – TabStrip Control – **# Status Bar Control #**– TreeView Control.

UNIT V

18 hours

Introduction to Databases: Database Access – **Working with the Data Control:** The Data Control - Coding – **Data Access Objects** – The Jet Data Base Engine – Functions of the Jet Database Engine – SQL – The DAO Object Model. **Crystal and Data Report:** Crystal Reports – Data Reports

..... # Self-study portion

Text Book: “Programming with Visual Basic 6.0” by Mohamed Azam, published by Vikas Publishing House Private Limited, 2002.

UNIT I : Chapter 1, Chapter 2, Chapter 3

UNIT II : Chapter 4, Chapter 5

UNIT III : Chapter 6, Chapter 7, Chapter 8

UNIT IV : Chapter 9, Chapter 10, Chapter 14

UNIT V : Chapter 11, Chapter 12, Chapter 13, Chapter 16

Books for References:

1. Gary Cornell, visual basic 6 from the Ground Up, Tata McGraw Hill Edition, 1998.

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Course				Hours			Credits	
II	20PDCA2CC6	VISUAL PROGRAMMING				6			4	
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO3				✓		✓	✓	✓	✓	
CO4	✓		✓	✓	✓	✓	✓			
CO5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of matches (✓) = 41, Relationship: High										

Prepared by:

1. S. Benazir Butto

Checked by:

1. Dr. A.R. Mohamed Shanavas

Note:

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very poor	Poor	Moderate	High	Very high

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
II	20PDCA2CC7	CORE – VII(A)	DATABASE MANAGEMENT SYSTEMS	4	3	100	25	75

Course Outcomes (CO):

Students will be able to

1. Enhance the knowledge and understanding of Database analysis and design.
2. Design ER-models to represent simple database application scenarios
3. Improve the database design by normalization.
4. Write SQL queries to retrieve information for business decision making from databases with many tables.
5. Solve Database problems using SQL and PL/SQL. This will include the use of Functions, Packages, and Triggers.

UNIT I

12 hours

RDBMS Concepts: Introduction – Database Approach – DBMS – Comparison of File System with DBMS – Data Models – Entity-Relationship Model – RDBMS – Keys – Normalization – Client Server Computing – Oracle Architecture.

UNIT II

12 hours

Beginning with SQL: Introduction – SQL Fundamentals – Data Types of SQL – Creating and Manipulating Tables: Introduction – Structure of Table – Table Creation Rules – Create Table Statement – Creating Table from an Existing Table – Role of Constraints to achieve – Data Integrity – Types of Constraints – To Display Information about Table – Altering Table – Removing Tables – Renaming Tables – Table available as Data Dictionary – DML Statement – Inserting Records – Updating Records – Deleting Records – **# Truncate Statement #**.

UNIT III

12 hours

Simple Data Retrieval Statement: SQL*PLUS – Select Statement – Changing Column Heading with Column Aliases – Oracle Functions & Group by Clause: Introduction – Single Row Functions – **# Aggregate Functions#** – Group Data. Joins & Sub-queries: Types of Join – Nested Queries

UNIT IV

12 hours

Introduction to PL/SQL: Introduction – SQL vs PL/SQL – Advantages of PL/SQL – Architecture of PL/SQL – Structures of PL/SQL – PL/SQL Elements – Variables and Constants. Control Statement: Introduction – Conditional Control – Iterative Control – Sequential Control. Error Handling: Handling of Errors – Advantages of Exceptions – Exception Types – Cursor Handling: Introduction – Types of Cursor – Implicit Cursor Handling – Explicit Cursor Handling – **# Use of variable attributes %row type in Cursor – Cursor Loop #**.

UNIT V

12 hours

Sub-Programs: Introduction – Advantages – Difference between Procedure and Function – Parts of Functions and Procedures – Procedure – Functions – Recursion – Packages: Introduction – Advantages – Dropping Package – Alter Package. Introduction – Types of Trigger – Creation of Triggers – Parts of Triggers – Error Handling in Triggers – Enabling and disabling Triggers.

..... # Self-study portion

Text Book:

Parteek Bhatia, SanjivDatta, Ranjit Singh, Simplified Approach to Oracle, Third Revised Edition 2008. Kalyani Publications

UNIT I : Chapter 1 (1.1, 1.4, 1.5 – 1.10, 1.12) Chapter 2 (2.1, 2.2) Chapter 3 (3.4)

UNIT II : Chapter 4 (4.1, 4.5, 4.6) Chapter 5 (5.1 – 5.12) Chapter 6(6.2 – 6.6)

UNIT III : Chapter 7(7.1 – 7.3. Chapter 8(8.1 – 8.4) Chapter9 (9.2, 9.3)

UNIT IV : Chapter 16(16.1 – 16.7) Chapter17: 17.1 – 17.4, Chapter 18(18.2 – 18-4)
Chapter 19(19.1 – 19.5, 19.8, 19.9)

UNIT V : Chapter 20(20.1 – 20.5, 20.7, 20.8) Chapter 21(21.1 – 21.4)
Chapter 22(22.1 – 22.4, 22.5, 22.6, 22.10, 22.12)

Books for References:

1. Ivan Bayross, Commercial Application Development Using Oracle, 2nd Revised Edition, BPB Publications, 2013
2. Rajeeb C. Chatterjee, Learning Oracle SQL and PL/SQL: A Simplified Guide, PHI Learning Private Limited, 2012

Web Reference:

<https://www.w3schools.com/sql/>

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Course				Hours	Credits			
II	20PDCA2CC7	DATABASE MANAGEMENT SYSTEMS				4	3			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1		✓		✓	✓	✓			✓	✓
CO2	✓	✓		✓	✓	✓	✓		✓	✓
CO3	✓	✓		✓	✓	✓		✓		✓
CO4		✓	✓	✓	✓	✓			✓	✓
CO5		✓	✓	✓		✓	✓		✓	✓
Number of matches (✓) = 35, Relationship: High										

Prepared by:

1. S. Syed Ibrahim

Checked by:

1. Dr. A.R. Mohamed Shanavas

Note:

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very poor	Poor	Moderate	High	Very high

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
II	20PDCA2CC7P	CORE – VII(B)	RDBMS LAB	2	1	50	10	40

1. SQL: Data Definition Languages

Table Creation - Primary Key, Candidate key,
Foreign Key, On Delete Cascade
Table Alteration - Rename table and Column name,
Add Column, Drop column,
Modify Column size and Data type
Drop Table

2. SQL: Data Manipulation Languages

Insertion
Update and Update with case statement
Deletion
Retrieval data using comparison operations (<,>, <=>, >=, =>)
String Operations
Set Operations
Tuple Variables
Aggregate Functions with Grouping and Having Clause
Ordering Tuples
Nested Sub-queries –Set Membership, Set Comparison
Join Operations – Equi Join, Left outer join, Right outer join, Full Outer join
Views

3. PL/SQL

Procedure Reverse the String
Find Factorial number using Recursive Function
Prepare Student Mark Sheet Employee
Pay Roll

4. SQL forms

Pay Roll Preparation
Income Tax Calculation
Student Mark Sheet

Prepared by:

1. S. Syed Ibrahim

Checked by:

1. Dr. A.R. Mohamed Shanavas

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
II	20PDCA2CC8	CORE – VIII(A)	SHELL PROGRAMMING	4	3	50	10	40

Course Outcomes (CO):

Students will be able to

1. Understand basic unix shell commands.
2. Recognize and understand commands related to piping, mails.
3. Apply and develop shell programming using conditions and operators.
4. Provide practices to create a file using instructions.
5. Apply the script for performing particular tasks.

UNIT I

12 hours

UNIX: An Introduction – Features of UNIX – UNIX System Organisation – **#UNIX File System#** – UNIX Versions. Linux: An Introduction – Linux Commands: Directory Oriented Commands – File Oriented Commands.

UNIT II

12 hours

Linux Commands: Process Oriented Commands – Communication Oriented Commands – General Purpose Commands. Vi Editor: Starting Vi modes – insert, delete and replace commands – **#Search Commands#** – Redo, Undo Commands.

UNIT III

12 hours

Shell Programming: Shell script – Shell variables – escape mechanisms - Shell meta characters – **#control statements#** – iterative statements.

UNITIV

12 hours

Some sample Shell scripts – System Administration: system administrator – booting and shutting down the system – adding and deleting a user - **#Compression and Decompression#** – Backup – Remote system Accessing.

UNITV

12 hours

The C Shell : Setting variables – input – loops – MySQL and PHP : MYSQL – working with mysql – operators – data types – creating a table – inserting and selecting values – updating and altering a table – dropping a table – **#PHP#** – First example – variables.

..... # Self-study portion

Text Book:

Mohamed Ibrahim, Linux – A Practical Approach, By Firewall Media publications, 2005.

UNIT I : Chapter 1 and 2

UNIT II : Chapter 2 and 4

UNIT III : Chapter 5

UNIT IV : Chapter 7

UNIT V : Chapter 8 and 9

Books for References:

Richard Petersen, Linux – The Complete Reference, Sixth Edition, Tata McGRAW Hill Publications.

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Course				Hours	Credits			
II	20PDCA2CC8	SHELL PROGRAMMING				4	3			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1				✓		✓	✓		✓	
CO2	✓	✓		✓	✓	✓	✓		✓	✓
CO3	✓	✓	✓	✓		✓			✓	✓
CO4	✓	✓	✓	✓		✓	✓	✓	✓	✓
CO5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of matches (✓) = 38, Relationship: High										

Prepared by:

1. S. Tamil Fathima

Checked by:

1. Dr. A.R. Mohamed Shanavas

Note:

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very poor	Poor	Moderate	High	Very high

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
II	20PDCA2CC8P	CORE – VIII(B)	SHELL PROGRAMMING LAB	2	1	50	10	40

1. Working with basic Linux commands.
2. Working with editors and extraction of files using Linux commands.
3. Write a Shell program to read a string using while and continue statements. If the given string has no value in it, then display “Null String” otherwise display the given string.
4. Write a shell script to find the details of a user session.
5. Write a Shell program to read 2 words one after another. Display the first word, go to sleep mode for 30 seconds using ‘sleep’ command. After 30 seconds, display the second word.
6. Write a Shell program for finding out the factorial of a given number using for loop.
7. Write a Shell script to check the user is eligible for vote or not [one must attain 18 years for voting. Ignore month differences].
8. Write a Shell program using 3 arguments to take the pattern as well as input and output file names. If the pattern is found then display “Pattern Found” else display “Error Message”. Also check if right number of arguments is entered.
9. Write a Shell program to delete the files interactively using ‘rm’ command and ‘while’ statement.
10. Write a Shell script to check whether a given string is palindrome or not.
11. Enhance the cp command to copy files. Display the necessary error message if error occurs.
12. Write a Shell program to prepare the electricity bill based on the following conditions:

For first 100 units – Rs.0.75/unit
 For next 100 units – Rs.1.50/unit
 Above 200 units – Rs.300/unit

Prepared by:

1. S. Tamil Fathima

Checked by:

1. Dr. A.R. Mohamed Shanavas

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
II	20PDCA2CC9	CORE – IX	WEB DESIGN	6	4	50	10	40

Course Outcomes (CO):

Students will be able to

1. Understand the concepts necessary to create dynamic web applications.
2. Evaluate Several Alternatives in the Design of a Web Application.
3. Develop A Functional Web Application.
4. Comprehend and Propose Web Application Infrastructure
5. Apply Code Reuse with Templates, Libraries, And Snippets

UNIT I

18 hours

Introduction to the Internet - Computers in Business, Networking, Internet, E-mail, Resource Sharing, World Wide Web, Telnet, Bulletin Board Service, Wide Area Information Service.

UNIT II

18hours

Internet Technologies - Modem, # **Internet Addressing** #, Physical Connections, Telephone Lines - Internet Browsers - Internet Explorer.

UNIT III

18 hours

Introduction to HTML - History of HTML, HTML Documents, Anchor Tag, Hyper Links - Head and Body Sections - Header Section - Title, Prologue, Links, # **Colorful Web Page** #, Comment Lines.

UNITIV

18 hours

Designing the Body Section - Heading Printing, Aligning the Headings, Horizontal Rule, Paragraph, # **Tab Settings** #, Images and Pictures-low resolution images, Lists, Unordered Lists, Ordered Lists.

UNITV

18 hours

Table Handling – Tables, Tables Creation in HTML – Frameset Definition, Frame Definition, Forms: Action Attribute-Method Attribute-Enctype Attribute-Drop down list: Check Boxes-Radio Buttons-Text Field- Submit and Reset Buttons.

..... # Self-study portion

Text Book:

1. C. Xavier, World Wide Web Design with HTML, TMH, 19th Reprint, 2008.

UNIT I : Chapter 1 Sections 1.1 - 1.5, 1.7, 1.10, 1.11

UNITII : Chapters 2 Sections 2.1 – 2.4, 3.1

UNITIII : Chapters 4 Sections 4.1 – 4.6, 5.1 – 5.6

UNITIV : Chapters 6 Sections 6.1 – 6.5, 6.6, 6.6.1, 7.1 – 7.4

UNITV : Chapters 8 Sections 8.1 – 8.3, 10.1 – 10.2, 12.1 – 12.4

Books for References:

N.P. Gopalan and J. Akilandeswari, Web Technology A Developer's Perspective, PHI, Second Printing, July 2008.

Relationship Matrix for Course Outcomes, Programme Outcomes and Programme Specific Outcomes:

Semester	Code	Title of the Course				Hours	Credits			
II	20PDCA2CC9	WEB DESIGN				6	4			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO2		✓	✓	✓	✓	✓	✓	✓	✓	✓
CO3	✓	✓	✓	✓	✓	✓		✓	✓	✓
CO4		✓	✓	✓	✓	✓		✓	✓	✓
CO5	✓	✓	✓	✓	✓		✓	✓	✓	✓
Number of matches (✓) = 45, Relationship: High										

Prepared by:

1. R. Senthamil Selvi

Checked by:

1. Dr. A.R. Mohamed Shanavas

Note:

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very poor	Poor	Moderate	High	Very high

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
II	20PDCA2CC10P1	CORE – X(A)	WEB DESIGN LAB	3	2	50	10	40

Develop a HTML document

1. To basic alignments on headers and format the document using suitable tags
2. To display your name as an <h1>heading and displays any of your friends as hot text. When you click your friend's name, it opens another page, which tells about your friends
3. For describing a hill station. Assign a suitable background design, background color and text color.
4. To illustrate basic text formatting tags.
5. To illustrate tag and perform basic picture formatting such as picture middle, top, and bottom of text.
6. To display the arts and science department of your college and the courses offered by the department using list.
7. To create table with rows and columns and split them using rows span and column span.
8. To include basic style elements.
9. To make use of frames and framesets which gives the information about a Hospital.
10. To create a small paragraph about 10 lines. Try to use Font, Title and Head Tags. Apply different sizes and colors using Tags.
11. Application form for admission to under graduate course.
12. Using dropdown list.

Prepared by:

1. R. Senthamil Selvi

Checked by:

1. Dr. A.R. Mohamed Shanavas

Semester	Code	Course	Title of the Course	Hours	Credits	Max. Marks	Internal Marks	External Marks
II	20PDCA2CC10P2	CORE – X(B)	VISUAL PROGRAMMING LAB	3	2	50	10	40

1. Simple exercises using standard controls.
2. Program to scroll a text from left to right and right to left of the client area
3. Program to load a picture in the picture box during runtime.
4. Program to find Biggest of 2 numbers using If..Else statement
5. Program to find sum of individual digits of a given number using while statement
6. Program to check the given string is palindrome or not
7. Program to create MDI Form and Child Form
8. Program to implement CommonDialogControl
9. Program to create status bar and display it in the form
10. Program to populate the table entities using data bound control.
11. Program to prepare a student's mark list
12. Program to prepare an invoice report using crystal report.

Prepared by:

1. S. Benazir Butto

Checked by:

1. Dr. A.R. Mohamed Shanavas