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**POST GRADUATE DIPLOMA IN COMPUTER
APPLICATION
(P.G.D.C.A.)**

SYLLABUS

With Effect from Academic Session -2023-24

FACULTY OF SCIENCES

**ISBMUNIVERSITY,
VILLAGE – NAWAPARA (KOSMI),TEHSIL–
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PROGRAM OUTCOMES (POs):

Program outcomes describe what students are expected to know and would be able to do by the time of graduation. These relate to the skills, knowledge, and behaviors that students acquire as they progress through the program.

- PO1. Technical knowledge:** Apply the knowledge of mathematics and science fundamentals to the solution of complex technical problems.
- PO2. Problem analysis:** Identify, formulate, review research literature, and analyze complex technical problems reaching substantiated conclusions using first principles of mathematics and sciences.
- PO3. Design/development of solutions:** Design solutions for complex technical problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern technical and IT tools including prediction and modeling to complex technical activities with an understanding of the limitations.
- PO6. The technocrat and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional technical practice.
- PO7. Environment and sustainability:** Understand the impact of the professional technical solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the technical practice.
- PO9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10. Communication:** Communicate effectively on complex technical activities with the technical community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11. Project management and finance:** Demonstrate knowledge and understanding of the technology and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12. Lifelong learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSO) :-

- **PSO1:** To expose the students to open Source technologies so that they become familiar with it and can seek appropriate opportunity in trade and industry.
- **PSO2:** Able to provide socially acceptable technical solutions to real world problems with the application of modern and appropriate programming techniques.
- **PSO3:** Design applications for any desired needs with appropriate considerations for any specific need on societal and industrial aspects.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs): -

The students of the programme are able to:

- **PEO1:** To apply their basic knowledge in computer Science and find solutions to complex problems in the recent Information Technology and real world scenario.
- **PEO2:** To be knowledgeable in IT domain and to elicit novel ideas by exploring the multiple solutions for the given problem.
- **PEO3:** Work with ethical and moral values in the multi-disciplinary teams and can communicate effectively among team members with continuous learning and pursue higher studies and develop their career in software industry.

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION (P.G.D.C.A.)

ANNUAL PATTERN SCHEME - (w.e.f. A.Y. 2023-24)

Course Description			Teaching Scheme (Program Specific)					Examination Scheme (Academic)				
Sr. No .	Subject Code	Subject Name	Mode of Teaching /Learning/Weightage				Credit s	Modes of Continuous Assessment/Evaluation				
			Hours Per Week						Marks (100)		Total	
			L	T	P	C H		External Examinati on (70)	Internal Assessment (IA) (30)	Practic al / Oral	100	
								EYE (70)	CT (20)	TA (10)	PR (70)	
1	PGDC101T	Introduction to Software Organization	3	-	-	3	3	70	20	10	-	100
2	PGDC102T	Programming in“C”	3	-	-	3	3	70	20	10	-	100
3	PGDC103T	Office Automation &Tally	3	-	-	3	3	70	20	10	-	100
4	PGDC 104T	GUI-Programming in Visual Basic	3	-	-	3	3	70	20	10	-	100
5	PGDC 105T	Database Management System	3	-	-	3	3	70	20	10	-	100
6	PGDC106T	Essentials of E-commerce & HTML	3	-	-	3	3	70	20	10	-	100
7	PGDC107P	Practical based on Office Automation & Tally	-	-	2	2	1	-	20	10	70	100
8	PGDC108P	Practical based on Programming “C”	-	-	2	2	1	-	20	10	70	100
9	PGDC 109P	Practical based on GUI-Programming in Visual Basic, Data base Management System & Essentials of E- Commerce & HTML	-	-	2	2	1	-	20	10	70	100
10	PGDC110P	Project	-	-	2	2	1	-	20	10	70	100
		Total	18		8	26	22				Total Marks	1000
*L- Lecture, *T-Tutorial, *P-Practical, CH- Contact Hours, *EYE- End yearly examination, *IA- Internal assessment, *TA- Teacher assessment, *AC- Activity Evaluation												
Teaching scheme (Holistic Student Development - HSD)												
Course Description			Digital and Soft Employability Skills									
11	DSES 01	DSES	-	-	4	4	2	70	30		100	
		Total	-	-	4	4	2	Total marks	100			
Course Description			Holistic and Community Engagement Program (HCEP)									
12	HCEP 01	HCEP	-	1	-	1	1	-	-		-	
		Total	-	1	-	1	1		Total marks		-	
		Grand Total	18	1	12	31	25		Grand Total Marks		1100	
Total weightage of marks for continuous evaluation of Term work/Report: Formative (40%), Timely Completion of Practical (40%) and Attendance /Learning Attitude (20%).												

(Paper-I)
Scheme (w.e.f. A.Y. 2023-24)

PGDCA					1 Year				
Course Name: Introduction to Software Organization					Course Code: PGDC 101T				
Teaching Scheme (Program Specific)					Examination Scheme (Formative/ Summative)				
Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation				
Hours Per Week					External	Internal (IA)		Practical	Total
Theory	Tutorial	Practical	Contact Hours	Credits	EYE	CT	TA	-	100
3	--	-	3	3	70	20	10		
IA: In-Yearly Assessment-CT Paper Duration – 1 Hours (CT - There will be three class tests, with the best three being assumed.) EYE : End Yearly Examination- Paper Duration - 3 Hours									

Course Objective:

Navigate and perform common tasks in Word, such as opening, viewing, editing, saving, and printing documents, and configuring the application, Format text and paragraphs. Perform repetitive operations efficiently using tools such as Find and Replace, Format Painter, and Styles to understand the information systems and software development and communications Computer organization and operating system.

Course Outcomes: Upon completion of the course student will be able to:

S.No.	Course Outcomes	Cognitive levels of attainment as per Bloom's Taxonomy
CO1	Understand the history and various generations of computer, characteristics of computer and its types, logic gates, number system.	L1, L2,L3
CO2	Understand computer organization and memory devices.	L1,L2,L3
CO3	Familiar with various types of software and software applications	L1,L2,L3,L4
CO4	Familiar with various types of Programming language and language translators.	L1,L2,L3,L4
CO5	Familiar with various Internet and Computer network basics	L1, L2,L3

Detailed Syllabus:

Module No.	Topics	Hrs.	Cognitive levels of attainment as per Bloom's Taxonomy
M1	Introduction to Computers	20	L1, L2, L3
	Computers – Introduction, Computer System Characteristics, Strength and Limitations of Computer, Development of Computers, Types of Computers, Generations of Computers. Introduction to Personal Computers – Uses of PC's, Components of PC's, Evolution of PC's, Developments of Processors, Architecture of Pentium IV, Configuration of PC's; Input Device; Output Devices		
M2	Computer Organization	15	L1, L2, L3
	Central Processing Unit – Arithmetic Logic Unit, Control Unit, Registers, Instruction Set, Processor speed. Storage Devices – Storage and its need, Storage Evaluation Units, Primary Storage, Secondary Storage, Data Storage and Retrieval Systems, SIMM, DIMM, Types of Storage Devices.		
M3	Computer Software	15	L1, L2, L3, L4
	Basics of Software – needs of Software, Types of Software; Free Domain Software; Open-Source Software; Compiler, Interpreter and Assembler; Linker and Loader; Debugger; Integrated Development Environment; Operating System – Introduction, Uses of OS, Functions of OS, booting process, Types of Reboot, Booting from different OS, Types of OS, DOS, Windows, Linux.		
M4	Programming Languages	20	L1, L2, L3, L4, L5
	Introduction, Comparison between Human and Computer Language; Program, Data, Information and Knowledge; Characteristics of Information; Types of Programming Languages; Generation of Languages; Program Development Steps; Programming Paradigms; Object-Oriented Programming; Structured Programming, Functional Programming, Process Oriented Programming.		
M5	Communication, Networks and Internet	20	L1, L2, L3, L4
	Text Analysis- Text analysis steps, A text analysis example, collecting raw text and representing text, TF and TFIDF, Categorizing documents by topics, determining sentiments, Time series analytics- overview, ARIMA model,		
Total Hr.		90	

Books Recommended:

S.NO	BOOK NAME	AUTHOR NAME	Publisher	Edition	Year
1.	Essentials of Information Technology	Kuldeep Singh Kaswan, Om Prakash Sangwan	Edu creation Publishing	Third	2019
2.	INTRODUCTION TO INFORMATION TECHNOLOGY	V. Rajaraman	PHI learning Pvt. Limited	Second	2018
3.	Computer Fundamentals	P.K Sinha	B.P.B Publications	First Edition	2013

Online Resources:

S.NO	Website	URL	Module Covered
1.	tutorialspoint.com	Computer System Organization (tutorialspoint.com)	M1,M2
2.	study.com	https://study.com/learn/lesson/computer-software-examples-types.html	M3
3.	wikipedia.org	https://en.wikipedia.org/wiki/Programming_language	M4
4.	www.javatpoint.com	https://www.javatpoint.com/computer-network-tutorial	M5

Table : Mapping of Course Outcomes with Program Outcomes

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	H	L	M	M	-	-	-	-	-	H	-	H	M	L	M
CO2	L	M	M	H	M	-	-	-	-	L	-	M	M	M	M
CO3	M	L	L	M	M	-	-	-	-	M	-	M	H	M	L
CO4	H	H	H	H	H	-	-	L	-	H	L	H	H	L	L
CO5	M	L	M	M	L	-	-	L	-	M	-	M	H	M	H

H- High, M- Moderate, L- Low, '-' for No correlation

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION (P.G.D.C.A.)**(Paper -II)****Scheme (w.e.f. A.Y. 2023-24)**

PGDCA					1 Year				
Course Name: Programming in “C”					Course Code: PGDC 102T				
Teaching Scheme (Program Specific)					Examination Scheme (Formative/ Summative)				
Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation				
Hours Per Week					External	Internal		Practical	Total
Theory	Tutorial	Practical	Contact Hours	Credits	EYE	CT	TA	-	100
3	--	-	3	3	70	20	10		
IA: In-Yearly Assessment- CT Paper Duration – 1 Hours (CT - There will be three class tests, with the best three being assumed.) EYE : End Yearly Examination- Paper Duration - 3 Hours									

Course Objective:

The course is designed to provide complete knowledge of C language. Students will be able to develop logics which will help them to create programs, applications in C. Also, by learning the basic programming constructs they can easily switch over to any other language in future.

Course Outcomes: Upon completion of the course student will be able to:

S.No.	Course Outcomes	Cognitive levels of attainment as per Bloom's Taxonomy
CO1	Understand the basic terminology used in computer programming	L1, L2,L3
CO2	Understand different data types, operators and its types, operator precedence and associativity in C language.	L1,L2,L3
CO3	Explain the difference between call by value and call by reference.	L1,L2,L3,L4
CO4	Understand the dynamics memory by the use of pointers, structure and union.	L1,L2,L3,L4
CO 5	Design programs involving decision structures, loops and functions.	L1,L2,L3

Detailed Syllabus:

Mod ule No.	Topics	Hrs.	Cognitive levels of attainment as per Bloom's Taxonomy
M1	Introduction	20	L1, L2, L3
	Introduction Character set, Identifiers and Keywords, Variables, displaying variables, Reading Variables, Character and Character String, Qualifiers, Typedefine Statements, Value initialized variables, Constants, Constant Qualifier, Operators and Expressions, Operator Precedence and Associativity, Basic input/output: Single Character I/O, Types of Characters in format string, Scanf with specifier.		
M2	Control Structures	15	L1, L2, L3
	Control Structure: If - statement, If-else statement, Multi decision, Compound Statement, Loops: For -loop, While - loop, Do-While loop, break statement, Switch statement, continue statement, Go to statement.		
M3	Functions Arrays	20	L1, L2, L3, L4
	Functions: Function main, Functions accepting more than one parameter, User defined and library functions, Concepts associatively with functions, function parameter, Return value, recursion comparison so Iteration and recursion variable length argument list. Arrays: Scope and Extent, Multidimensional Arrays, Array of Strings, Function in String, passing arrays to functions, accessing array inside functions.		
M4	Pointers	20	L1, L2, L3, L4, L5
	Pointers: Definition and use of pointer, address operator, pointer variable, referencing pointer, void pointers, pointer arithmetic, pointer, pointer and arrays, pointer and functions, pointers and two-dimensional arrays, array of pointers, pointers constants, pointers and strings.		
M5	Structure and Union	15	L1, L2, L3, L4
	Declaring and using Structure, Structure initialization, Structure with in Structure, Operations on Structures, Array of Structure, Array within Structure, Creating user defined data type, pointer to Structure and function. Union, difference between Union and Structure, Operations on Union, Scope of Union.		
	Total Hr.	90	

Books Recommended:

S.NO	BOOK NAME	AUTHOR NAME	Publisher	Edition	Year
1.	Let us C	YashwantKanitkar	BPB Publisher	5 th Edition	2010
2.	Mastering in C	Venugopal	McGraw Hill Education (India) Private Limited	2 nd Edition	2015
3.	Programming in ANSI C	E-Balaguru swami	McGraw Hill Education	8 th Edition	2019

Online Resources:

S.NO	Website	URL	Module Covered
1.	tutorialspoint.com	C - Basic Introduction (tutorialspoint.com)	M1,M2
2.	w3schools.com	Introduction to C (w3schools.com)	M3
3.	GeeksforGeeks.com	C Language Introduction - GeeksforGeeks	M4
4.	www.javatpoint.com	https://www.javatpoint.com/strucure/tutorial	M5

Table : Mapping of Course Outcomes with Program Outcomes

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	L	L	L	M	M	-	-	-	-	L	-	L	H	L	H
CO2	M	M	M	H	L	-	-	L	L	M	L	M	M	M	M
CO3	H	H	H	H	M	-	-	M	M	H	M	M	M	L	L
CO4	M	M	M	M	L	-	-	-	-	M	-	L	H	L	M
CO5	H	L	L	L	L	-	-	-	-	H	-	-	M	M	H

H- High, M- Moderate, L- Low, '-' for No correlation

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION (P.G.D.C.A.)

(Paper - III)

Scheme (w.e.f. A.Y. 2023-24)

PGDCA					1 Year				
Course Name: Office Automation & Tally					Course Code: PGDC 103T				
Teaching Scheme (Program Specific)					Examination Scheme (Formative/ Summative)				
Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation				
Hours Per Week					External	Internal (IA)		Practical	Total
Theory	Tutorial	Practical	Contact Hours	Credits	EYE	CT	TA	-	100
3	--	-	3	3	70	20	10		
IA: In-Yearly Assessment- CT Paper Duration – 1 Hours (CT - There will be three class tests, with the best three being assumed.) EYE : End Yearly Examination- Paper Duration - 3 Hours									

Course Objective:

The course aims to create excellent accounting technicians who can understand and present the financial health of organizations. The course trains students to be well versed in accounting concepts - right from recording transactions to income statements, balance sheets, trial balance and accounting cycle. The objective of office automation is to prepare the student with in-depth knowledge of Office Automation Tools and Tally to handle daily business accounting system of any organization. The participant learns the use of Advanced Excel tools for making reports useful for management.

Course Outcomes: Upon completion of the course student will be able to:

S.No.	Course Outcomes	Cognitive levels of attainment as per Bloom's Taxonomy
CO1	Understand creating and formatting basic documents in word processor software with their properties.	L1, L2,L3
CO2	Understand the creating and using formulas and charts in worksheets	L1,L2,L3
CO3	Able to create presentations and can apply various animations on it.	L1,L2,L3,L4
CO4	Understand the creating and using structure query language queries in database	L1,L2,L3,L4
CO 5	Able to create and manage transactions of various accounts in tally software.	L1,L2,L3

Detailed Syllabus:

Module No.	Topics	Hrs.	Cognitive levels of attainment as per Bloom's Taxonomy
M1	Windows Concept	15	L1, L2, L3
	Windows Concepts, Features, Structure, Desktop, Icons, Taskbar, Start Menu, My Computer, Recycle Bin, my document, creating shortcut. Accessories: Calculator, Notepad, Paint, WordPad, Character Map. Windows Explorer: Creating files & folders and other Explorer facilities, Object Linking & Embedding. Communication: Dial up Networking, Phone Dialer. Difference among windows versions.		
M2	Word Processing & Spreadsheet	20	L1, L2, L3
	Word: Creating, Editing, & Previewing Documents, Formatting, Advanced Features, Using Thesaurus, Mail Merge, Table & Charts, Handling Graphics, Converting Word Documents into other Formats. Excel: Worksheet Basics, Creating, Opening, & Moving in Worksheet, Working with Formula & Cell referencing, Absolute & Relative addressing, Working with Ranges, Formatting of Worksheet, Graphs & Charts, Database, Function, and Macros.		
M3	PowerPoint&FoxPro	15	L1, L2, L3, L4
	PowerPoint: Creating a presentation, modifying visual Elements, adding objects, Applying Transitions, animation and linking, preparinghandouts, presenting a slideshow. FoxPro: Preparing Database files, access & retrieval of records in a database file, inserting & deleting of records. Programming preliminaries. Sorting & Indexing. Development of programs LOOPING, Branching, report making.		
M4	Access	20	L1, L2, L3, L4, L5
	Introduction to MS Access, The Tables of a Database, Introduction to the Record of a Table, Introduction to Controls Design, Details on Controls Design, The Characteristics of a Table, The Characteristics of a Form, The Characteristics of a Window Control, Data Controls, Introduction to Data Expressions, Getting Assistance with Data Entry, Database Strings, Database Numeric Values, Database Conditional Values, Database Date and Time Values, Creating Reports, Characteristics of Reports.		
M5	Tally	20	L1, L2, L3, L4
	Setting up Ledger & Groups. Study of recording of transactions in the 'Voucher'. (According to Golden rules). Study of 'Final A/C preparation & displaying in different mode/format'. Study of alteration		

	&Deletion of ledger/Groups. Study of cash & fund flow, day book, sales register, purchase register, bills receivable/Payable etc. Study of data security & backing up data. Outline of entry for Income Tax, ED,VAT,ST/CST,PF, Gratuity, Bonus, Loans &Depreciation c.		
	Total Hr.	90	

Books Recommended:

S.NO	BOOK NAME	AUTHOR NAME	Publisher	Edition	Year
1.	Office 2010 in Easy Steps	Michael price	In Easy Steps Limited	4th Edition	2010
2.	Learn Microsoft Office 2021 -: Explore advance features of Word, Excel, PowerPoint, and Teams 2021 to master your skills	Linda Foulkes	Packt Publishing Limited	2nd Edition	2022
3.	Tally.ERP 9 with GST in Simple Steps	Vikasgupta	Dreamtech Press	1 st Edition	2020

Online Resources:

S.NO	Website	URL	Module Covered
1.	tutorialspoint.com	Excel 2010 Tutorial (tutorialspoint.com)	M1
2.	tutorialspoint.com	word 2010 Tutorial (tutorialspoint.com)	M2
3.	tutorialspoint.com	powerpoint 2010 Tutorial (tutorialspoint.com)	M3
4.	www.javatpoint.com	https://www.javatpoint.com/msaccess/tutorial	M4
5.	tallyschool.com	Tally ERP 9 Notes with GST + Practical Assignment - PDF Download (tallyschool.com)	M5

Table : Mapping of Course Outcomes with Program Outcomes

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	H	L	M	M	-	-	-	-	-	H	-	H	M	L	L
CO2	L	M	M	H	M	-	-	-	-	L	-	M	M	M	L
CO3	M	L	L	M	M	-	-	-	-	M	-	M	H	M	M
CO4	H	H	H	H	H	-	-	L	-	H	L	H	H	L	L
CO5	M	L	M	M	L	-	-	L	-	M	-	M	H	M	H

H- High, M- Moderate, L- Low, '-' for No correlation

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION (P.G.D.C.A.)

(Paper- IV)

Scheme (w.e.f. A.Y. 2023-24)

PGDCA					1 Year				
Course Name: GUI- Programming in visual basic					Course Code: PGDC 104T				
Teaching Scheme (Program Specific)					Examination Scheme (Formative/ Summative)				
Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation				
Hours Per Week					External	Internal (IA)		Practical	Total
Theory	Tutorial	Practical	Contact Hours	Credits	EYE	CT	TA	-	100
3	--	-	3	3	70	20	10		
IA: In-Yearly Assessment- CT Paper Duration – 1 Hours (CT - There will be three class tests, with the best three being assumed.) EYE : End Yearly Examination- Paper Duration - 3 Hours									

Course Objective:

This course provides the skills and knowledge required to use essential features and capabilities of Visual BASIC, a programming system used to produce Graphical User Interfaces and applications in a Windows environment. It includes basic programming concepts, problem-solving, programming logic, and the design of event-driven programming.

Course Outcomes: Upon completion of the course student will be able to:

S.No.	Course Outcomes	Cognitive levels of attainment as per Bloom's Taxonomy
CO1	Understand The Visual Basic Integrated Development Environment (IDE) and its wealth of development tools.	L1,L2,L3
CO2	Build effective user interfaces with Visual Basic controls, forms, and other GUI components.	L1,L2,L3,L4
CO3	Learn the use of the debugging and testing tools available in Visual Studio.	L1,L2,L3,L4
CO4	Use Database access using Visual Basic's ADO Control and data-aware components like the Data Grid and Data Environment Designer.	L1,L2,L3

Detailed Syllabus:

Module No.	Topics	Hrs.	Cognitive levels of attainment as per Bloom's Taxonomy
M1	Introduction to Visual Basic	20	L1, L2, L3
	<p>Editions of Visual Basic, Event Driven Programming, Terminology, working environment, project and executable files, understanding modules, Using the code editor window, other code navigation features, Code documentation and formatting, environment options, code formatting option, Automatic code completion features.</p> <p>Creating Programs - Introduction to objects, controlling objects, Properties, methods and events, working with forms, interacting with the user: Msg Box function, Input Box function, Code statements, Managing forms, Creating a program in Visual Basic, Printing.</p>		
M2	Variable and Procedures	15	L1, L2, L3
	<p>Overview of variables, Declaring, Scope, arrays, User-defined data types, constants working with procedures, working with dates and times, Using the Format function, Manipulating text strings.</p> <p>Controlling Program Execution - Comparison and logical operators, If...Then statements, Select Case statements, looping structures, Using Do...Loop structures, For...Next statement, Exit in a loop.</p>		
M3	Working with Controls	20	L1, L2, L3, L4
	<p>Types of controls, Overview of standard controls, Combo Box and List Box, Option Button and Frame controls Menu, Status bars, Toolbars, Advanced standard controls, ActiveX controls, Insert Table objects, Validation.</p> <p>Error Trapping & Debugging - Overview of run-time errors, error handling process, The Err object, Errors and calling chain, Errors in an error-handling routine, Inline error handling, Error-handling styles, General error -trapping options Type of errors, break mode Debug toolbar, Watch window, Immediate window, Local window, Tracing program flow with the Call Stack.</p>		
M4	Sequential and Random Files	20	L1, L2, L3, L4, L5
	<p>Sequential and Random Files-Saving data to file, basic filling, data analysis and file, the extended text editor, Random access file, the design and coding.</p> <p>Data Access Using the ADO Data Control - Overview of ActiveX data</p>		

	Objects, Visual Basic data access features, Relational database concepts Using the ADO Data control to access data, Overview of DAO, RDO, Data Control, structured query language (SQL), Manipulating data Using Data Form Wizard.		
M5	Report Generation Report Generation - Overview of Report, Data Report, Add groups, Data Environment, Connection to database Introduction to Crystal Report Generator. Advances Tools - Overview of drag and drop, Mouse events, Drag-and drop basics, Date Time Control, Calendar, Print Dialog, MDI(Multiple Document Interface).	15	L1,L2,L3,L4
	Total Hr.	90	

Books Recommended:

S.NO	BOOK NAME	AUTHOR NAME	Publisher	Edition	Year
1.	Introduction to OOP & V.B.	V.K. Jain	Vikas Publisher	3 rd Edition	2011
2.	Programming in Visual Basic	G.B. Sahoo & Rita Sahoo	BPB Publications.	2nd Edition	2012
3.	Programming in VB 6.0	Bradley	TM Hill.	4 th Edition	2018

Online Resources:

S.NO	Website	URL	Module Covered
1.	vbtutor.net	Introduction to Visual Basic (vbtutor.net)	M1,M2,M3
2.	GeeksforGeeks	Introduction to Visual Programming Language - GeeksforGeeks	M4,5M

Table : Mapping of Course Outcomes with Program Outcomes

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	M	M	M	H	H	-	-	-	-	-	-	-	M	L	H
CO2	M	L	L	M	L	-	-	-	-	-	-	-	M	M	L
CO3	H	M	M	H	M	-	-	-	-	-	-	-	H	M	M
CO4	H	M	M	H	M	-	-	-	-	-	-	-	H	M	M

H- High, M- Moderate, L- Low, '-' for No correlation

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION (P.G.D.C.A.)

(Paper- V)

Scheme (w.e.f. A.Y. 2023-24)

PGDCA					1 Year				
Course Name: Database Management System					Course Code: PGDC 105T				
Teaching Scheme (Program Specific)					Examination Scheme (Formative/ Summative)				
Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation				
Hours Per Week					External	Internal (IA)		Practical	Total
Theory	Tutorial	Practical	Contact Hours	Credits	EYE	CT	TA		
3	--	-	3	3	70	20	10	-	100
IA: In-Yearly Assessment- CT Paper Duration – 1 Hours (CT - There will be three class tests, with the best three being assumed) EYE : End Yearly Examination- Paper Duration - 3 Hours									

Course Objective:

Gain a good understanding of the architecture and functioning of Database Management Systems as well as associated tools and techniques. Understand and apply the principles of data modeling using Entity Relationship and develop a good database design. Understand the use of Structured Query Language (SQL) and its syntax. Apply Normalization techniques to normalize a database. Understand the need of transaction processing and learn techniques for controlling the consequences of concurrent data access.

Course Outcomes: Upon completion of the course student will be able to:

S.No.	Course Outcomes	Cognitive levels of attainment as per Bloom's Taxonomy
CO1	Knowledge & Understanding: Databases and their design & development Intellectual Cognitive/ analytical skills: Normalization of Databases.	L1,L2,L3
CO2	Practical Skills: Using SQL and PL/SQL.	L1,L2,L3,L4
CO3	Transferable skills: Usage of DBMS design and administration.	L1,L2,L3,L4
CO4	Gather data to analyses and specify the requirements of a system.	L1,L2,L3
CO 5	Design system components and environments	L1,L2,L3, 15

Detailed Syllabus:

Module No.	Topics	Hrs.	Cognitive levels of attainment as per Bloom's Taxonomy
M1	Introduction to DBMS	20	L1, L2, L3
	Data, Information and knowledge, concept of DBMS, Advantages of DBMS, data independence, database administration roles, DBMS architecture, different kinds of DBMS users, importance of data dictionary, contents of data dictionary, types of database languages. Data models: network, hierarchical, relational, Introduction to ODB Concept.		
M2	E-RModel	20	L1, L2, L3
	Entity - Relationship model as a tool for conceptual design-entities, attributes and relationships. ER diagrams; Concept of keys; Case studies of ER modeling Generalization; specialization and aggregation.		
M3	RelationalModel	20	L1, L2, L3, L4
	Structure to Relational Database, Relational Algebra Extended Relational - Algebra Operation, Simple and complex queries using relational algebra, The Domain Relational Calculus, Tuple relational calculus.		
M4	Relational Database Design	20	L1, L2, L3, L4, L5
	Pitfalls in Relational Database Design, Decomposition, Functional Dependencies, Normalization: 1NF, 2NF, BCNF, 3NF, 4NF, 5NF.		
M5	Structured Query Language	20	L1, L2, L3, L4
	DDL and DML: Creating Table, Specify Integrity Constraint, Modifying Existing Table, Dropping Table, Inserting, Deleting and Updating Rows in as Table, Where Clause, Operators, ORDER BY, GROUP Function, SQL Function, JOIN, Set Operation, SQL Sub Queries. Views: What is Views, Create, Drop and Retrieving data from views? Security: - Management of Roles, Changing Password, Granting Roles & Privilege, with drawing privileges.		
	Total Hr.	100	

Books Recommended:

S.NO	BOOK NAME	AUTHOR NAME	Publisher	Edition	Year
1.	Database System Concepts	henry F. Korth, S. Sudarshan, Abraham Silberschatz	McGraw-Hill Education	6th Edition	2010
2.	Database Management Systems	Alexis Leon , Mathews Leon	Tata McGraw Hill Education	2nd Edition	2008

Online Resources:

S.NO	Website	URL	Module Cover
1.	Javapoint.com	https://www.javatpoint.com/dbms-tutorial	M1,M2,M3,M4
2.	GeeksforGeeks.org	https://www.geeksforgeeks.org/structured-query-language/	M5

Table : Mapping of Course Outcomes with Program Outcomes

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	H	L	M	M	-	-	-	-	-	H	-	H	M	L	L
CO2	L	M	M	H	M	-	-	-	-	L	-	M	M	M	L
CO3	M	L	L	M	M	-	-	-	-	M	-	M	H	M	M
CO4	H	H	H	H	H	-	-	L	-	H	L	H	H	L	L
CO5	H	L	M	H	H	-	-	M	-	H	L	H	H	M	M

H- High, M- Moderate, L- Low, '-' for No correlation

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION (P.G.D.C.A.)

(Paper- VI)

Scheme (w.e.f. A.Y. 2023-24)

PGDCA					1 Year				
Course Name: Essentials of E- Commerce &HTML					Course Code: PGDC 106T				
Teaching Scheme (Program Specific)					Examination Scheme (Formative/ Summative)				
Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation				
Hours Per Week					External	Internal (IA)		Practical	Total
Theory	Tutorial	Practical	Contact Hours	Credits	EYE	IA	TA		
3	--	-	3	3	70	20	10	-	100
IA: In-Yearly Assessment- CT Paper Duration – 1 Hours (CT - There will be three class tests, with the best three being assumed) EYE : End Yearly Examination- Paper Duration - 3 Hours									

Course Objective:

This course provides an introduction to information systems for business and management. It is designed to familiarize students with organizational and managerial foundations of systems, the technical foundation for understanding information systems also -

- To understand the various uses and role of internet.
- To identify the different connections, services, work of internet.
- To understand the basic and advanced HTML tags.

Course Outcomes: Upon completion of the course student will be able to:

S.No.	Course Outcomes	Cognitive levels of attainment as per Bloom's Taxonomy
CO1	Understand the basics of Internet and its protocol.	L1,L2,L3
CO2	Analyse a web page and identify its elements and attributes.	L1,L2,L3,L4
CO3	Create web pages using HTML and Cascading Styles sheets	L1,L2,L3,L4
CO4	Build dynamic web pages using JavaScript (client-side programming).	L1,L2,L3
CO 5	Understand the basics of E-Commerce.	L1,L2,L3, L5

Detailed Syllabus:

Module No.	Topics	Hrs.	Cognitive levels of attainment as per Bloom's Taxonomy
M1	Introduction to Electronic Commerce	20	L1, L2,L3
	<p>Introduction to Electronic Commerce – The scope of E-commerce; Size, growth and future projection of E-commerce market Worldwide and in India; Internet and its impact on traditional businesses; Definition of E-commerce; Business models in E–Commerce environment; Case studies.</p> <p>Emergence of E-commerce on private networks, Electronic Data Interchange (EDI), What is EDI, EDI inaction, EDI basics, EDI standards, financial EDI, FEDI for international</p> <p>Trade transaction, FEDI payment system within the US, ACH credit transfer payment system FEDI, application of EDI, benefits of EDI, Electronics Payment system,</p> <p>E-commerce on the web, E-commerce in India.</p>		
M2	Internet, Security and E-Commerce	15	L1,L2,L3
	<p>Security of Data/Information in Internet/web environment; Client security, Network security; Virus protection and Hacking; Security Measures: Authentication, Integrity, Privacy, Non-repudiation; Public information, Private information, firewall tunnels, encryption,</p> <p>Secret key encryption, public key encryption, digital signature. Business–to-Business(B2B), Business-to-Consumer (B2C); Business-to-Business-to-Consumer (B2B2C) and Consumer-to-Consumer (C2C) E-Commerce.</p>		
M3	HTML Basics & Web Site Design Principles	20	L1,L2,L3,L4
	<p>Concept of a Website, Web Standards, what is HTML? HTML Versions, Naming Scheme for HTML Documents,HTML document/file, HTML Editor, Explanation of the Structure of the homepage, Elements in HTML Documents, HTML Tags, Basic HTML Tags, Comment tag in HTML, Viewing the Source of a webpage, how to download the web page source? XHTML, CSS, Extensible Markup Language (XML), Extensible Style sheet language (XSL),Some tips for designing web pages, HTML Document Structure. HTML Document Structure-Head Section, Illustration of Document Structure, <BASE>Element, <ISINDEX>Element, <LINK>Element</p> <p>,META ,<TITLE> Element,<SCRIPT> Element ,Practical Applications, HTML Document Structure -BodySection:-</p> <p>Bodyelementsanditsattributes:Background;BackgroundColor;Text;Link;ActiveLink(ALINK); Visited Link (VLINK); Left margin; Top margin ,Organization of</p>		

	Elements in the BODY of the document: Text Block Elements; Text Emphasis Elements; Special Elements -- Hypertext Anchors; Character-Level Elements; Character References ,Text Block Elements: HR(Horizontal Line); Hn(Headings) ; P (Paragraph); Lists; ADDRESS ; BLOCKQUOTE; TABLE; DIV (HTML 3.2 and up) ;PRE(Preformatted);FORM, Text Emphasis Elements, Special Elements—Hypertext Anchors, Character-Level Elements: line breaks(BR) and Images(IMG),Lists, ADDRESS Element, BLOCKQUOTE Element, TABLE Element ,COMMENTS in HTML ,CHARACTER Emphasis Modes, Logical & Physical Styles, Netscape, Microsoft and Advanced Standard Elements List, FONT, BASE FONT and CENTER.		
M4	Image, Internal and External Linking between Web Pages Netscape, Microsoft and Advanced Standard Elements List, FONT, BASEFONT and CENTER. Insertion of images using the element IMG (Attributes: SRC (Source), WIDTH, HEIGHT, ALT (Alternative), ALIGN), IMG (In-line Images) Element and Attributes; Illustrations of IMG Alignment, Image as Hypertext Anchor, Internal and External Linking between WebPages. Hypertext Anchors, HREF in Anchors, Links to a Particular Place in a Document,NAME attribute in an Anchor ,Targeting NAME Anchors ,TITLE attribute, Designing Frames in HTML	20	L1,L2,L3,L4, L5
M5	Creating Business Websites with Dynamic webpages Concept of static Webpages and dynamic webpages. Hosting & promotion of the website, Domain Name Registration, Web Space allocation, Uploading/Downloading the website-FTP, cute FTP. Website Promotion Search Engines, Banner Advertisements.	15	L1,L2,L3,L4
	Total Hr.	90	

Books Recommended:

S.NO	BOOK NAME	AUTHOR NAME	Publisher	Edition	Year
1.	Introduction to HTML	KamleshN.Agarwala, O.P.Vyas, PrateekA. Agarwala.	(Kitab Mahal Publications).	3 rd Edition	2010
2.	The Complete E-Commerce Book: Design, Build & Maintain a Successful Web-based Business	Janice Reynolds	CRC Press	2nd Edition	2004

Online Resources:

S.NO	Website	URL	Module Cover
1.	tutorialspoint.com	https://www.tutorialspoint.com/e_commerce/e_commerce_security.htm	M1,M2
2.	W3schools.com	https://www.w3schools.com/html-tutorial	M3,M4,M5

Table : Mapping of Course Outcomes with Program Outcomes

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	H	L	L	M	M	-	-	-	-	-	-	-	L	M	L
CO2	H	L	L	L	H	-	-	-	-	-	-	-	M	L	M
CO3	M	M	M	M	H	-	-	-	-	-	-	-	H	M	M
CO4	H	M	M	H	L	-	-	-	-	-	-	-	H	L	H
CO5	M	L	L	M	H	-	-	-	-	-	-	-	H	H	H

H- High, M- Moderate, L- Low, '-' for No correlation

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION (P.G.D.C.A.)

(Paper-VI - Lab)

Scheme (w.e.f. A.Y. 2023-24)

PGDCA					1 Year				
Course Name: Practical based on Office Automation& Tally					Course Code: PGDC 107P				
Teaching Scheme (Program Specific)					Examination Scheme (Formative/ Summative)				
Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation				
Hours Per Week					External	Internal (IA)		Practical	Total
Theory	Tutoria l	Practical	Contact Hours	Credit s	EYE	CT	TA	PR	100
-	--	2	2	1	-	20	10	70	
IA: In-Yearly Assessment- CT Paper Duration – 1 Hours (CT - There will be three class tests, with the best three being assumed) EYE : End Yearly Examination- Paper Duration - 3 Hours									

Course Objective:

To help the students to understand how to format, edit, and print text documents and prepare for desktop publishing.

- Students will be able to create various documents newsletters, brochures, making document using photographs, charts, presentation, documents, drawings and other graphic images.
- To work with the worksheet and presentation software.

Course Outcomes: Upon completion of the course student will be able to:

S.No.	Course Outcomes	Cognitive levels of attainment as per Bloom's Taxonomy
CO1	Understand creating and formatting basic documents in word processor software with their properties.	L1,L2,L3
CO2	Understand the creating and using formulas and charts in worksheets	L1,L2,L3,L4
CO3	Able to create presentations and can apply various animations on it.	L1,L2,L3,L4
CO4	Understand the creating and using structure query language queries in database	L1,L2,L3,L4
CO 5	Able to understand, create and manage accounts in tally	L1,L2,L3, L4

Detailed syllabus

Module No.	Topics	Hrs.	Cognitive levels of attainment as per Bloom's Taxonomy	COs attained	POs attained	PEOs Achieved	Types of experiment
M1	<p>File New, Open, Save, Cut, Copy, Paste, Drag Drop, Bullets and Numbering, Undo, Redo, Find, Replace, Paragraph Formatting, Character Formatting and Page Formatting.</p> <p>1. Open a document. Type the following text and perform the tasks as instructed below: -</p> <p>Working with Word Processor</p> <p>As already mentioned, a word processor is a package that processes textual matter and creates organized and flawless documents. In addition to it a word processor not only remote all the limitations of typewriter but also offers various useful features that cannot be even dreamt of with typewriter. Also, if same textual matter is to be reproduced with minor changes, retyping the only option in typewriters.</p> <p>The word processing (and word processor) originated way back in 1964 when special typewriters. Magnetic Tape Selectric typewriters (MIST) were launched by IBM (International Business Machines).</p> <p>1. Insert the following text after the first paragraph</p> <p>The main components of a word processing system are listed below:</p> <ul style="list-style-type: none"> •Computer •Printer •A word processing software <p>2. Save the document as Word1.doc</p> <p>3. Move the second paragraph to the end of the document. Using drag& drop.</p>	6	L3, L4	2, 5	PO3	PEO1,P EO3	Problem Solving

	<p>4. Move the second paragraph in the end of the document using cut, paste operations.</p> <p>5. Undo the above actions.</p> <p>6. Now use Redo actions</p> <p>7. Go to the End of the document (in one step)</p> <p>8. Go to the Beginning of document (in one step)</p> <p>9. Insert page break before the third paragraph.</p> <p>10. Search the word “computer: in your document with options Match case, find whole words only.</p> <p>11. Replace the word “typewriters” with “word processor”</p> <p>12. Undo the above action</p> <p>14. Change the magnification of your document to different percentages using zoom features. 15. Format the above written paragraphs and give the options as follows:</p> <p>(1)Alignment justified</p> <p>(2)Indentation: left 0.2 right:0.2</p> <p>(3)Spacing: before 6 pt. after:6 pt.</p> <p>(4)Special: first line by :0.4”</p> <p>(5)Line spacing 1.5 lines.</p> <p>16. Set the default tab stop to 0.3”</p> <p>17. Set the margins to 1.25 18. Format the page using</p> <p>1.Left margin:0.5, right margin: 0.5</p> <p>2.Top margin:1.5, bottom margin:0.5</p> <p>3.Gutter Margin: 1indentation: left 0.2 right:0.2</p> <p>4.Header Margin:0.5</p> <p>19. Format the each occurrence of group of words „Word Processor“ as bold, italic, under line and small caps using find and replace with formatting options.</p> <p>20. Align the heading to Center and make it bold, underlined and italicized.</p>						
M2	<p>Type the text as show below and perform the tasks as directed:</p> <p>Computers</p> <p>COMPUTER is an electronic device that processes data and gives meaningful information. Computers are being used in almost all the fields today</p> <p>EXPERT SYSTEMS</p> <p>HUMAN THINKING AND ARTIFICAL INTELLIGENCE Can computer think?</p> <p>AI at work Today: Natural Language programs and Expert Systems.</p> <p>THE IMPACT OF COMPUTERS ON PEOPLE</p> <p>The Positive Impact</p>	5	L3, L4	2, 5	PO3	PEO1,P EO3	Problem Solving

	<p>The Potential Dangers</p> <p>THE IMPACT OF COMPUTERS ON ORGANIZATIONS</p> <p>The information Processing Industry</p> <p>The Positive impact on Using Organizations</p> <p>The Potential Dangers for Using Organizations</p> <p>1.Search for the word „Computer“ in the entire document. All the occurrences of the given word are to be searched irrespective of the case.</p> <p>2.In the above question note that word also searches „computerization and „computerisations“.</p> <p>Now make sure that this time Word searches only for the word „computer“ in the entire document.</p> <p>3.Change the entire uppercase letter to lowercase.</p> <p>4.Give a heading to the above written text „COMPUTERS IN TODAY“S WORLD“</p> <p>5.Centre aligns the Heading text Computer that appears in first line.</p> <p>6.Apply outside border to entire document.</p> <p>7.Apply outside border to the just heading text.</p> <p>8.Change page setup according to the following specifications</p> <p>Top margin: 1.5”, bottom margin: 1.5” Gutter: 1”, left margin: 1.5”</p> <p>Right margin: 1”</p> <p>Page width: 7.5”, page height: 6.5 “</p> <p>Orientation: portrait</p> <p>9.Give a header „Creations“ and footer „The school of computing“. The footer should also consist of page no“s.</p> <p>10.Give appropriate commands for giving different header and footers for first page and odd & even pages.</p> <p>11.Save and close the document.</p>						
M3	<p>Write the following equations in MS-Word:</p> $4\text{H}_3\text{PO}_3=3\text{H}_3\text{PO}_4+\text{PH}_3,$ $\text{PCL}_3+\text{CL}_2=\text{PCL}_5,$ $(\text{x}+\text{y})^2=\text{x}^2+\text{y}^2+2\text{xy}$	1	L3, L4	2, 4	PO3	PEO1, PEO2	Problem Solving
M4	<p>Write the following equations in MS-Word:</p> $\text{C}_2\text{H}_5\text{OH}+\text{PCL}_5=\text{C}_2\text{H}_5\text{CL}+\text{POCL}_3+\text{HCL}, \quad A = \pi r^2,$	1	L3, L4	2, 5	PO3	PEO1,P EO3	Problem Solving
M5	<p>Write the following in MS-Word:</p> <p>1. Preheat the oven to 220°C.</p>	1	L3, L4	2, 4	PO3	PEO1,P	Problem

	2. Copyright © 3. Registered ® 4. Trademark TM					EO3	Solving																								
M6	Create the following table in MS-Word: <table><tr><td colspan="2">Name</td><td colspan="2">Rahul</td></tr><tr><td colspan="2">Roll No.</td><td colspan="2">101</td></tr><tr><td>Subject</td><td>Max</td><td>Min</td><td>Obtain</td></tr><tr><td>Java</td><td>100</td><td>33</td><td>75</td></tr><tr><td>Multimedia</td><td>100</td><td>33</td><td>70</td></tr></table>	Name		Rahul		Roll No.		101		Subject	Max	Min	Obtain	Java	100	33	75	Multimedia	100	33	70	1	L3, L4	2, 5	PO3	PEO1,PEO5	Designed based				
Name		Rahul																													
Roll No.		101																													
Subject	Max	Min	Obtain																												
Java	100	33	75																												
Multimedia	100	33	70																												
M7	Create a document in MS-Word. Set the watermark as Microsoft. Also write the following text as formatted below: <i>measuring programming progress by lines of code is like measuring aircraft building progress by weight.</i> --Bill Gates	1	L3, L4	2, 5	PO3	PEO1, PEO5	Problem Solving																								
M8	Create the following table in MS-Word: <div>Admission 2022-23</div> <table><tr><td>Course</td><td>OC</td><td>OB</td><td>MBC</td><td>SC/ST</td><td>Total</td></tr><tr><td>Computer Science</td><td>9</td><td>18</td><td>5</td><td>5</td><td>37</td></tr><tr><td>Commerce</td><td>14</td><td>25</td><td>6</td><td>5</td><td>50</td></tr><tr><td>Mathematics</td><td>12</td><td>20</td><td>4</td><td>4</td><td>40</td></tr></table>	Course	OC	OB	MBC	SC/ST	Total	Computer Science	9	18	5	5	37	Commerce	14	25	6	5	50	Mathematics	12	20	4	4	40	1	L3, L4	2, 5	PO3	PEO1, PEO5	Designed based
Course	OC	OB	MBC	SC/ST	Total																										
Computer Science	9	18	5	5	37																										
Commerce	14	25	6	5	50																										
Mathematics	12	20	4	4	40																										
M9	Create Table as shown <table><tr><td colspan="2">Car</td><td>Price</td></tr><tr><td rowspan="2">Maruti</td><td>Omni Van</td><td>200000</td></tr><tr><td>Maruti 800</td><td>242000</td></tr><tr><td rowspan="2">Tata</td><td>Sumo</td><td>390000</td></tr><tr><td>Sierra</td><td>447000</td></tr></table>	Car		Price	Maruti	Omni Van	200000	Maruti 800	242000	Tata	Sumo	390000	Sierra	447000	1	L3, L4	2, 5	PO3	PEO1, PEO5	Designed based											
Car		Price																													
Maruti	Omni Van	200000																													
	Maruti 800	242000																													
Tata	Sumo	390000																													
	Sierra	447000																													
M10	Write the following in MS-Word. <ul style="list-style-type: none">This Is Sentencecase.This Is Lowercase.This Is Uppercase.This Is Capitalise Each Word.This Is Toggle Case. Create the following list in MS-Word: <ol style="list-style-type: none">Actors<ul style="list-style-type: none">Bruce WillisGerard ButlerVin DieselActress<ul style="list-style-type: none">Julia RobertsAngelina JolieKate WinsletCameron Diaz	1	L3, L4	2, 5	PO3	PEO1, PEO5	Designed based																								
M11	Write the following in MS-Word: <ol style="list-style-type: none">Cricket Players	1	L3, L4	2, 5	PO3	PEO1,	Problem																								

	<div>A. Batsman a) Sachin Tendulkar b) Rahul Dravid c) Virendra Sehwag B. Bowler a) Kumble b) Zaheer Khan c) Balaji C. Spinner a) Harbhajan b) Kumble c) Kartik</div>					PEO5	Solving																					
M12	Write a letter to send invitation to your friend inviting on your birthday	1	L3, L4	2, 5	PO3	PEO1, PEO5	Problem Solving																					
	Create labels for your friends'' address	1	L3, L4	2, 5	PO3	PEO1, PEO5	Problem Solving																					
M13	<div>MS – EXCEL 1. Create the following worksheet and save the worksheet as wages.xls PACE COMPUTERS (ATC CEDT), Govt. of India Payroll for Employee (Temporary)</div> <div><div>Today''s date</div><div>Pay Rate :</div></div> <table><tr><td>Worker's Name</td><td>Hired On</td><td>days Worked</td><td>Gross Wages</td></tr><tr><td>Kushagra</td><td>3-Mar-07</td><td></td><td></td></tr><tr><td>Pradeep</td><td>4-Mar-07</td><td></td><td></td></tr><tr><td>Puneet</td><td>5-Mar-07</td><td></td><td></td></tr><tr><td>Rajeev</td><td>6-Mar-07</td><td></td><td></td></tr></table> <div>(I) Calculate days work and gross wages</div>	Worker's Name	Hired On	days Worked	Gross Wages	Kushagra	3-Mar-07			Pradeep	4-Mar-07			Puneet	5-Mar-07			Rajeev	6-Mar-07			1	L3, L4	3, 4	PO3	PEO1, PEO5	Problem Solving	
Worker's Name	Hired On	days Worked	Gross Wages																									
Kushagra	3-Mar-07																											
Pradeep	4-Mar-07																											
Puneet	5-Mar-07																											
Rajeev	6-Mar-07																											
M14	<div>Create the following worksheet and save the worksheet as wages.xls</div> <table><tr><td>Name Basic (monthly) (Rs.)</td><td>HRA (% of basic)</td><td>D A (Rs.)</td><td>Total Salary (1997)</td><td>Bonus (Rs.)</td><td>Total Salary (1998)</td><td>%(Increase)</td></tr><tr><td>Shirome5000</td><td>10</td><td>450</td><td></td><td>1200</td><td></td><td></td></tr><tr><td>Somya9000</td><td>15</td><td>800</td><td></td><td>200</td><td></td><td></td></tr></table>	Name Basic (monthly) (Rs.)	HRA (% of basic)	D A (Rs.)	Total Salary (1997)	Bonus (Rs.)	Total Salary (1998)	%(Increase)	Shirome5000	10	450		1200			Somya9000	15	800		200			1	L3, L4	3, 4	PO3	PEO1,P EO3	Problem Solving
Name Basic (monthly) (Rs.)	HRA (% of basic)	D A (Rs.)	Total Salary (1997)	Bonus (Rs.)	Total Salary (1998)	%(Increase)																						
Shirome5000	10	450		1200																								
Somya9000	15	800		200																								

Tanya	7000	12	900		1800	

- Calculate the total salary HRA ,DA, for each
- as sum of Basic salary, employee for 1997
 - Calculate total salary for year 1998
 - as sum of salary of 1997 and bonus
 - Calculate % increase in
 - salary from 1997 to 1998

M15

Create a worksheet as follows

Pace computer (ATC CEDT)
Govt. Of India
Payroll for employee
(Permanent)

Empcodename	doj	salary	bonus	net salary
E001	Meenu	3-Mar-95	5000	
E002	Manoj	4-Mar-06	4000	
E003	Preeti	3-Mar-95	4800	
E004	Sumita	6-Mar-07	7500	

- allow bonus 8000 to employee having service >2 year other wise allow bonus 3000
- find net salary as sum of bonus and salary

1

L3, L4

3, 4

PO3

PEO1,
PEO3

Problem
Solving

M16

create the worksheet as follows

R oll N o	Name	Engl ish	Mat hs	Tot al	Aver age	Divis ion
101	Kushagra	95	99			
102	Ajay	92	95			
103	Vijay	70	69			

Class
Aver
age

- find Total of two subjects for each student
- find average of two subject for each student
- find class as average of average column
- find division of student as first, second,

1

L3, L4

3, 4

PO3

PEO1,
PEO3

Problem
Solving

	<div>third, assume percentage of division of your own and maximum marks in each student as 100</div> <div>v. Apply conditional formatting for division column, first division should be in bold, second division should be in italic and third division should be underline</div>																																										
M17	Create macro in excel to make selected cell, bold, italic outside bordered and center across select	1	L3, L4	3, 4	PO3	PEO1, PEO3	Problem Solving																																				
M18	<div>create bar chart with given data</div> <table><tr><td></td><td>2001</td><td>2002</td><td>2003</td></tr><tr><td>Tea</td><td>19</td><td>23</td><td>25</td></tr><tr><td>Coffee</td><td>22</td><td>24</td><td>22</td></tr><tr><td>Sugar</td><td>45</td><td>40</td><td>45</td></tr></table> <div>i. Provide heading production detail</div> <div>ii. Provide z axis title; lacks metric tone</div> <div>iii. Provide x axis title year</div>		2001	2002	2003	Tea	19	23	25	Coffee	22	24	22	Sugar	45	40	45	1	L3, L4	3, 4	PO3	PEO1, PEO3	Problem Solving																				
	2001	2002	2003																																								
Tea	19	23	25																																								
Coffee	22	24	22																																								
Sugar	45	40	45																																								
M19	<div>Create a table with column heading as shown below and using form perform data entry of records.</div> <table><tr><td>Zone</td><td>Departm ent</td><td>Employ ee</td><td>Salary</td></tr><tr><td>West</td><td>g</td><td>Mukesh</td><td>10500</td></tr><tr><td>East</td><td>Sales</td><td>Rahul</td><td>20000</td></tr><tr><td>Sout h</td><td>Marketin g</td><td>Suresh</td><td>5500</td></tr><tr><td>Nort h</td><td>Marketin g</td><td>Anju</td><td>25000</td></tr><tr><td>Sout h</td><td>Sales</td><td>Neeraj</td><td>8000</td></tr><tr><td>Nort h</td><td>Sales</td><td>Ajay</td><td>8000</td></tr><tr><td>Sout h</td><td>Marketin g</td><td>Mahesh</td><td>7500</td></tr><tr><td>West</td><td>Sales</td><td>Rajesh</td><td>4500</td></tr></table> <div>i. Sort the data according to Zone then by Department</div> <div>Use group and outline feature to show & hide details</div>	Zone	Departm ent	Employ ee	Salary	West	g	Mukesh	10500	East	Sales	Rahul	20000	Sout h	Marketin g	Suresh	5500	Nort h	Marketin g	Anju	25000	Sout h	Sales	Neeraj	8000	Nort h	Sales	Ajay	8000	Sout h	Marketin g	Mahesh	7500	West	Sales	Rajesh	4500	1	L3, L4	3, 4	PO3	PEO1, PEO3	Problem Solving
Zone	Departm ent	Employ ee	Salary																																								
West	g	Mukesh	10500																																								
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Nort h	Sales	Ajay	8000																																								
Sout h	Marketin g	Mahesh	7500																																								
West	Sales	Rajesh	4500																																								
M20	<div>Create a table with column heading as shown below and using form perform data entry of records.</div> <table><tr><td>Zone</td><td>Departme nt</td><td>Employe e</td><td>Salary</td></tr><tr><td>West</td><td>Marketing</td><td>Mukesh</td><td>10500</td></tr><tr><td>East</td><td>Sales</td><td>Rahul</td><td>20000</td></tr><tr><td>Sout h</td><td>Marketing</td><td>Suresh</td><td>5500</td></tr><tr><td>Nort h</td><td>Marketing</td><td>Anju</td><td>25000</td></tr><tr><td>Sout h</td><td>Sales</td><td>Neeraj</td><td>8000</td></tr><tr><td>Nort h</td><td>Sales</td><td>Ajay</td><td>8000</td></tr><tr><td>Sout</td><td>Marketing</td><td>Mahesh</td><td>750</td></tr></table>	Zone	Departme nt	Employe e	Salary	West	Marketing	Mukesh	10500	East	Sales	Rahul	20000	Sout h	Marketing	Suresh	5500	Nort h	Marketing	Anju	25000	Sout h	Sales	Neeraj	8000	Nort h	Sales	Ajay	8000	Sout	Marketing	Mahesh	750	1	L3, L4	3, 4	PO3	PEO1, PEO3	Problem Solving				
Zone	Departme nt	Employe e	Salary																																								
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Nort h	Sales	Ajay	8000																																								
Sout	Marketing	Mahesh	750																																								

	<div>h</div> <div>West Sales Rajesh 4500</div> <div>i. Use filter command to show records having zone: West</div> <div>ii. Use filter command to show records having zone: West and salary less than 5000</div> <div>iii. Use filter command to show records having salary greater than 10000</div> <div>0</div>																																																
M21	<div>Create a able using feature</div> <div>Principle 1500</div> <div>Rate 4%</div> <div>Time 5</div> <table><tr><td>300</td><td>3</td><td>4</td><td>5</td></tr><tr><td>1%</td><td>45</td><td>60</td><td>75</td><td></td></tr><tr><td>2%</td><td>90</td><td>120</td><td>150</td></tr><tr><td>3%</td><td>135</td><td>180</td><td>225</td></tr></table>	300	3	4	5	1%	45	60	75		2%	90	120	150	3%	135	180	225	1	L3, L4	3, 4	PO3	PEO1, PEO3	Problem Solving																									
300	3	4	5																																														
1%	45	60	75																																														
2%	90	120	150																																														
3%	135	180	225																																														
M22	<div>Using goal seek feature find out the interest rate it must be to earn interest 500</div> <div>Principle 1500</div> <div>Rate 4%</div> <div>Time 5</div> <div>Interest 300</div>	1	L3, L4	3, 4	PO3	PEO1, PEO3	Problem Solving																																										
M23	<div>MS-Access</div> <div>Q.1. Create the following table in MS-Access:</div> <table><tr><th>Field Name</th><th>Data Type</th><th>Description</th></tr><tr><td>ContactID</td><td>AutoNumber</td><td>Primary Key</td></tr><tr><td>ContactType</td><td>Text 50</td><td>Type of contact (Wholesale, dealer, other)</td></tr><tr><td>Name</td><td>Text 50</td><td>Contact's first name</td></tr><tr><td>Company</td><td>Text 50</td><td>The Contact's employer</td></tr><tr><td>Address</td><td>Text 50</td><td>Contact's address</td></tr><tr><td>City</td><td>Text 50</td><td>Contact's city</td></tr><tr><td>State</td><td>Text 50</td><td>Contact's state</td></tr><tr><td>ZipCode</td><td>Text 50</td><td>Contact's zip code</td></tr><tr><td>Phone</td><td>Text 50</td><td>Contact's phone</td></tr><tr><td>Fax</td><td>Text 50</td><td>Contact's fax</td></tr><tr><td>E-Mail</td><td>Text 100</td><td>Contact's e-mail address</td></tr><tr><td>LastSalesDate</td><td>Date/Time</td><td>The most recent date the contact purchased something</td></tr><tr><td>DiscountPercent</td><td>Number</td><td>The customary</td></tr></table>	Field Name	Data Type	Description	ContactID	AutoNumber	Primary Key	ContactType	Text 50	Type of contact (Wholesale, dealer, other)	Name	Text 50	Contact's first name	Company	Text 50	The Contact's employer	Address	Text 50	Contact's address	City	Text 50	Contact's city	State	Text 50	Contact's state	ZipCode	Text 50	Contact's zip code	Phone	Text 50	Contact's phone	Fax	Text 50	Contact's fax	E-Mail	Text 100	Contact's e-mail address	LastSalesDate	Date/Time	The most recent date the contact purchased something	DiscountPercent	Number	The customary	1	L3, L4	3, 4	PO3	PEO1, PEO3	Problem Solving
Field Name	Data Type	Description																																															
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ZipCode	Text 50	Contact's zip code																																															
Phone	Text 50	Contact's phone																																															
Fax	Text 50	Contact's fax																																															
E-Mail	Text 100	Contact's e-mail address																																															
LastSalesDate	Date/Time	The most recent date the contact purchased something																																															
DiscountPercent	Number	The customary																																															

			discount provided to the customer						
	Notes	Memo	Notes and observations regarding this customer						
	Active	Yes/No	Whether the customer is still buying or selling products						
M24	<p>Create the following tables in MS-Access with the referential integrity-foreign key:</p> <p>1. tblProducts</p> <p>Primary Key – ProductID</p> <p>ProductID Description Category</p> <p>Quantity Cost</p> <p>ProductNumberRetailPrice Product</p> <p>SalePrice Taxable</p> <p>2. tblSalesLineItems</p> <p>Primary Key – SalesLineItemID</p> <p>SalesLineItemID InvoiceNumber ProductID</p> <p>ProductNumber Quantity</p> <p>Description Price Discount</p> <p>3. tblSales</p> <p>Primary Key – InvoiceNumber</p> <p>InvoiceNumber SaleDate Invoice Date</p> <p>Buyer Payment Method Tax</p> <p>Location Tax Rate</p>			1	L3, L4	3, 4	PO3	PEO1, PEO3	Problem Solving
M25	<p>MS PowerPoint</p> <p>Q 1 Create a PPT of At least 10 Slides with one slide for comparison, one slide displaying a chart with the table.</p> <p>Q 2 Create a PPT presentation use rehearse timing for the slide show Q 3 Create PPT presentation slide import sound and video clips.</p> <p>Q 4 Create PPT presentation with hyperlinking.</p> <p>Q 5 Create PPT presentation and apply themes and transitions.</p>			1	L3, L4	3, 4	PO3	PEO1, PEO3	Designed based

M26	Tally Preparing Balance Sheet for various companies.	8	L3, L4	3, 4	PO3	PEO1, PEO3	Problem Solving
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Books Recommended:

S.NO	BOOK NAME	AUTHOR NAME	Publisher	Edition	Year
1.	Tally With Office Automation	Priya Bajaj Dr.S.B. Kishor, Vijaylaxmi D. Hiremath, GurbirKaurKhalsa	DAS GANU PRAKASHAN, NGAPUR	1 st Edition	2012
2.	Computer Fundamentals and Office Automation	Dr. R. Deepalakshmi	Charulatha Publications Private Limited	2 nd Edition	2019

Online Resources:

S.N o.	Website	URL	Module Covered
1.	www.study.com	https://study.com/academy/lesson/what-is-office-automation-system-tools.html	M1-M15
2.	www.academia.edu	https://www.academia.edu/7797651/TALLY_9_PRACTICAL_QUESTION_SAMPLE	M16- M26

Table : Mapping of Course Outcomes with Program Outcomes

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	M	L	L	M	H	-	-	-	-	-	-	-	M	H	M
CO2	M	L	L	L	H	-	-	-	-	-	-	-	M	M	M
CO3	L	L	L	M	L	-	-	-	-	-	-	-	H	M	H
CO4	M	L	L	L	M	-	-	-	-	-	-	-	M	M	H
CO5	H	M	M	H	M	-	-	-	-	-	-	-	H	H	H

H- High, M- Moderate, L- Low, '-' for No correlation

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION (P.G.D.C.A.)

(Paper – VIII- Lab)

Scheme (w.e.f. A.Y. 2023-24)

PGDCA					1 Year				
Course Name: Practical based on programming in “C”					Course Code: PGDC 108P				
Teaching Scheme (Program Specific)					Examination Scheme (Formative/ Summative)				
Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation				
Hours Per Week					Theory	Internal (IA-30)		Practical	Total
Theory	Tutorial	Practical	Contact Hours	Credits	EYE	CT	TA	PR	100
-	--	2	2	1	-	20	10	70	
IA: In-Yearly Assessment- CT Paper Duration – 1 Hours (CT - There will be three class tests, with the best three being assumed) EYE : End Yearly Examination- Paper Duration - 3 Hours									

Course Objective:

To help the students to understand how to format, edit, and print text documents and prepare for desktop publishing-

- Students will be able to create various documents newsletters, brochures, making document using photographs, charts, presentation, documents, drawings and other graphic images.
- To work with the worksheet and presentation software.
- To create their own logic and implement using C Programming.
- To understand how to use programming in day-to-day application.
- To understand and apply the functions, arrays, pointers.

Course Outcomes: Upon completion of the course student will be able to:

S.No.	Course Outcomes	Cognitive levels of attainment as per Bloom's Taxonomy
CO1	Design programs using control statements and operators of C- language.	L3,L4
CO2	Understand and apply the pointers, memory allocation techniques and use of files for dealing with variety of problems.	L3, L4
CO3	3 Design graphics programs using C language.	L3, L4
CO4	Understand the C programming techniques	L3, L4
CO 5	Solve the real-time problems using programming	L3, L4

Detailed syllabus

Module NO.	Topics	Hrs.	Cognitive levels of attainment as per Bloom's Taxonomy	COs Attained	POs Attained	PEOs Achieved	Types of experiment
	Practical based on programming in "C"						
M1	INPUT AND OUTPUT, FORMATTING Write a program in which you declare variable of all data types supported by C language. Get input from user and print the value of each variable with alignment left, right and column width 10. For real numbers print their values with two digits right to the decimal	2	L3, L4	5	PO3	PEO1, PEO3	Basic experiment
M2	LOOPS, DECISIONS 1. Write program to print all combination of 1 2 3. 2. Write program to generate following pattern a) <pre> A B C c D E F G) * E A B F C G * * A F B G * * * A G b) 1 d) 1 1 2 1 1 3 3 1 1 6 4 4 1 </pre>	2	L3, L4	5	PO3	PEO1, PEO3	Designed based
M3	Write main function using switch...case, if..else and loops which when called asks pattern type; if user enters 11 then first pattern is generated using for loop. If user enters 12 then first pattern is generated using while loop. If user enters 13 then first pattern is generated using do-while loop. If user enters 21 then a second pattern is generated using for loop and so on.	2	L3, L4	5	PO3	PEO1, PEO3	Problem Solving
M4	Write program to display number 1 to 10 in	2	L3, L4	5	PO3	PEO1,	Problem

	octal, decimal and hexadecimal system.					PEO3	Solving
M5	Write program to display number from one number system to another number system. The program must ask for the number system in which you will input integer value then the program must ask the number system in which you will want output of the input number after that you have to input the number in specified number system and program will give the output according to number system for output you mentioned.	2	L3, L4, L5	5	PO3	PEO1, PEO3	Problem Solving
M6	Write a program to perform following tasks using switch...case, loops, and conditional operator (as and when necessary). a) Find factorial of a number b) Print Fibonacci series up to n terms and its sum. e) Print prime numbers up n terms. f) Print whether a given year is leap or not.	4	L3, L4	5	PO3	PEO1, PEO3	Problem Solving
M7	<p>ARRAY</p> <ol style="list-style-type: none"> Create a single program to perform following tasks using switch, if..else, loop and single dimension character array without using library function: <ol style="list-style-type: none"> To reverse the string. To count the number of characters in string. To copy the one string to other string; To find whether a given string is palindrome or not. To count no. of vowels, consonants in each word of a sentence and no. of punctuation in sentence. To arrange the alphabets of a string in ascending order. Create a single program to perform following tasks using switch, if..else, loop and single dimension integer array: <ol style="list-style-type: none"> Sort the elements. Create a single program to perform following tasks using switch, if..else, loop and double dimension integer array of size 3x3: <ol style="list-style-type: none"> Addition of two matrix. 	8	L3, L4	5	PO3	PEO1, PEO3	Problem Solving

	b) Subtraction of two matrix. c) Multiplication of two matrix 4. Create a single program to perform following tasks using switch, if. else, loop and double dimension character array of size 5x40: a) Sorting of string. b) Finding the largest string. c) Finding the smallest string.						
M8	FUNCTIONS 1. Write program using the function power (a, b) to calculate the value of a raised to b. 2. Write a program to perform following tasks using switch...case, loops and function. a) Find factorial of a number b) Print Fibonacci series up to n terms and its sum. 3. Write a program to perform following tasks using switch...case, loops and recursive function. a) Find factorial of a number b) Print Fibonacci series up to n terms and its sum. 4. Write a function to accept 10 characters and display whether each input character is digit, uppercase letter or lower-case letter.	5	L3, L4	5	PO3	PEO1, PEO3	Problem Solving
M9	STRUCTURE 1. Create a structure Student having data members to store roll number, name of student, name of three subjects, max marks, min marks, obtained marks. Declare a structure variable of student. Provide facilities to input data in data members and display result of student. 2. Create a structure Date with data member'sdd, mm, yy (to store date). Create another structure Employee with data members to hold name of employee, employee id and date of joining (date of joining will be hold by variable of structure Date which appears as data member in Employee Structure). Store data of an employee and print the same. 3. Create a structure Student having data members to store roll number, name of student, name of three subjects, max marks, min marks, obtained marks. Declare array of structure to hold data of 3	8	L3, L4	4, 5	PO3	PEO1, PEO3	Problem Solving

	students. Provide facilities to display result of all students. Provide facility to display result of specific student whose roll number is given.						
M10	POINTER 1. Write a program of swapping two numbers and demonstrates call by value and call by reference. 2. Write a program in c using pointer and function to receive a string and a character as argument and return the no. of occurrences of this character in the string. 3. Write program to find biggest number among three numbers using pointer and function.	5	L3, L4	4, 5	PO3	PEO1, PEO3	Problem Solving
	Total Hr.	60					

Books Recommended:

S.NO	BOOK NAME	AUTHOR NAME	Publisher	Edition	Year
1.	Practical C Programming	Oualline Steve	Shroff Publishers & Distributors Pvt Ltd	2 nd Edition	2011
2.	O Reilly Practical C Programming	O Reilly	CRC Press	3 rd Edition	2005

Online Resources:

S.NO	Website	URL	Module Cover
1.	www.tutorialspoint.com	https://www.tutorialspoint.com/practical FOR c- language	M1- M5
2.	schools.com	https://www.w3schools.com/c-tutorial	M6- M10

Table : Mapping of Course Outcomes with Program Outcomes

Course Outcomes	Bloom's Taxonomy	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	L3,L4	M	L	L	M	M	-	-	-	-	-	-	M	M	H	M
CO2	L3, L4	M	L	L	L	M	-	-	-	-	-	-	M	M	M	M
CO3	L3, L4	L	H	L	M	M	-	-	-	-	-	-	L	H	M	H
CO4	L3, L4	M	L	L	L	M	-	-	-	-	-	-	M	M	M	M
CO5	L3, L4	H	M	M	H	M	-	-	-	-	-	-	M	H	H	H

H- High, M- Moderate, L- Low, '-' for No correlation

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION (P.G.D.C.A.)

(Paper – IX – Lab)

Scheme (w.e.f. A.Y. 2023-24)

PGDCA					1 Year				
Course Name: Practical based on GUI-Programming in Visual Basic, Data base Management System & Essentials of E-Commerce & HTML					Course Code: PGDC 109P				
Teaching Scheme (Program Specific)					Examination Scheme (Formative/ Summative)				
Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation				
Hours Per Week					Theory	Internal (IA-30)		Practical	Total
Theory	Tutoria l	Practical	Contact Hours	Credit s	EYE	CT	TA	PR	100
-	--	2	2	1	-	20	10	70	
IA : In-Yearly Assessment- CT Paper Duration – 1 Hours (There will be three class tests, with the best three being assumed) EYE : End Yearly Examination- Paper Duration - 3 Hours , PR- Practical /Oral									

Course Objective:

To help the students to understand how to format, edit, and print text documents in V.B. -

- Students will be able to create and use various documents newsletters, brochures, making document using photographs, charts, presentation, documents, drawings and other graphic images.
- To work with the HTML and prepared web pages.
- Students will be able to link the V.B. with Database.

Course Outcomes: Upon completion of the course student will be able to:

S.No.	Course Outcomes	Cognitive levels of attainment as per Bloom's Taxonomy
CO1	Understand the difference between Console programming and GUI programming.	L3
CO2	Able to design GUI Application using The Visual Basic Integrated Development	L3,L4
CO3	Environment (IDE) and its wealth of development tools. Able to design a software with database	L3,L4
CO4	Understand the creating and using structure query language queries in database	L3,L4
CO 5	Able to understand, create and manage Database	L3, L4

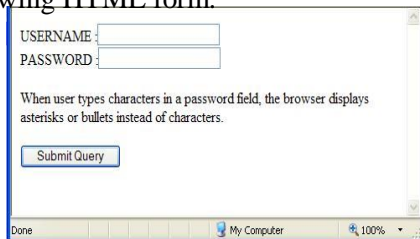
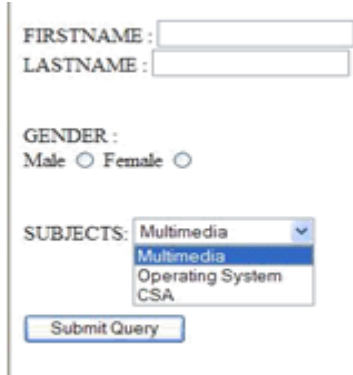
Detailed syllabus

Module No.	Topics	Hrs.	Cognitive levels of attainment as per Bloom's Taxonomy	COs attained	POs attained	PEOs Achieved	Types of experiment
	Practical based on GUI-Programming in Visual Basic, Data base Management System & Essentials of E- Commerce & HTML						
	LIST OF PRACTICALS OF VISUALBASIC						
M1	WAP to perform arithmetic operation using command buttons. (Declare variables globally). WAP to take input of principal, rate & time and calculate simple interest & compound interest.	1	L3,L4	1,2,3	PO3	PEO1, PEO3	Basic experiment
M2	Write a program to take input of x and print table of x in the following format. X * 1 = X X * 2 = 2X ----- ----- X* 10 = 10*X	1	L3,L4	1,2,3	PO3	PEO1, PEO3	Basic experiment
M3	Design an interface, which will appear like marksheet. It will take input of marks in five subjects and calculate total marks and percentage then provide grade according to following criteria. (Using nested if) (Use tab index property to move focus) If % Then Grade >= 90 A+ >= 75 &< 90 A >= 60 &< 75 B >= 45 &< 60 C Otherwise F	1	L6	1,2,3	PO3	PEO1, PEO3	Design based
M4	WAP to create a simple calculator (Using control array)	2	L3,L4	1,2,3	PO3	PEO1, PEO3	Basic experiment

M5	Write a program which will count all vowels, consonants, digits, special characters and blank spaces in a sentences (Using select case)	1	L3,L4	1,2,3	PO3	PEO1, PEO3	Basic experiment
M6	WAP to illustrate all functionalities of listbox and combobox. WAP using check boxes for following font effects. Bold Italic Underline Increase font size Decrease font size Font color	1	L3,L4	1,2,3	PO3	PEO1, PEO3	Basic experiment
M7	WAP for temperature conversion using option button.	1	L3,L4	1,2,3	PO3	PEO1, PEO3	Problem solving
M8	WAP to launch a rocket using pictures box and timer control	2	L3,L4	1,2,3	PO3	PEO1, PEO3	Problem solving
M9	WAP to change back color of any control (label, textbox) using scroll box.	2	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving
M10	WAP to search an element for a one-dimension static array	2	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving
M11	WAP to sort a dynamic array of (a)n numbers (b)n strings (Input array size at run time)	2	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving
M12	WAP to take input of two matrices and perform their addition, subtraction and multiplication using menu editor.	3	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving
M13	WAP to illustrate call by value and call by reference (to swap to values)	1	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving
M14	Write a program to calculate factorial of a number using user defined function.	1	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving
M15	Take input of a word and WAP to check whether it is a palindrome or not. (Without using structure fun)	1	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving
M16	WAP to find smallest among given three numbers using user defined procedures.	1	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving
M17	WAP to generate, print and find sum of first n elements of Fibonacci series using recursion.	1	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving

M18	WAP to perform read write operations in a sequential file.	2	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving																
M19	WAP to display records of a table using DAO & bound control code for buttons to move at first record, next record, previous record, last record in the table.	4	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving																
M20	Create a table using visual data manager and write a program using RDO & advanced bound control to add, delete, edit & navigate records.	3	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Designed based																
M21	WAP to access a database using ADO & display a key column in the combo box or list box when an item is selected in it, its corresponding records is shown in MSH flex grid	3	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving																
M22	Using Data Environment create a program to display records of any table	2	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving																
M23	WAP to generate marksheet of students in a class through data report.	2	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving																
M24	Using drive, directory and file list box (it will show only .bmp files). Let the user select the bmb files, which will appear in picture box as user click on any item in list box	3	L3, L4	1, 2, 3	PO3	PEO1, PEO3	Problem solving																
	LIST OF PRACTICALS OF HTML																						
M25	Write an HTML program to create the following table: <table><tr><td>Class</td><td>Subject1</td><td>Subject2</td><td>Subject3</td></tr><tr><td>BCA I</td><td>Visual Basic</td><td>PC Software</td><td>Electronics</td></tr><tr><td>BCA II</td><td>C++</td><td>DBMS</td><td>English</td></tr><tr><td>BCA III</td><td>Java</td><td>Multimedia</td><td>CSA</td></tr></table>	Class	Subject1	Subject2	Subject3	BCA I	Visual Basic	PC Software	Electronics	BCA II	C++	DBMS	English	BCA III	Java	Multimedia	CSA	3	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving
Class	Subject1	Subject2	Subject3																				
BCA I	Visual Basic	PC Software	Electronics																				
BCA II	C++	DBMS	English																				
BCA III	Java	Multimedia	CSA																				
M26	Write an HTML program to create the following lists: <ul style="list-style-type: none">• C• C++• Fortran•COBOL	1	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving																
M27	Write an HTML program to create the following lists: <ol style="list-style-type: none">1. Java2. Visual Basic3. BASIC4. COBOL	1	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving																
M28	Write an HTML program to demonstrate hyper linking between two web pages. Create a marquee and also insert an image in the page.	1	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving																
M29	Write an HTML program to create frames in HTML with 3 columns (Width = 30%, 30% , 40%).	1	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving																
M30	Write an HTML program to create a web page with a blue background and the following text:	1	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem																

	<p style="text-align: center;"><u>New Delhi</u></p> <p style="text-align: center;"><i>New Delhi, the capital and the third largest city of India is a fusion of the ancient and the modern. The refrains of the Muslim dynasties with its architectural delights, give the majestic ambience of the bygone era.</i></p>							solving																			
M30	<p>Write an HTML program to create the following table: <u>Admission</u></p> <table><tr><td>Course</td><td>OC</td><td>BC</td><td>MBC</td><td>S</td></tr><tr><td>Computer science</td><td>9</td><td>18</td><td>5</td><td></td></tr><tr><td>Commerce</td><td>14</td><td>25</td><td>6</td><td></td></tr><tr><td colspan="5">Grand total</td></tr></table>	Course	OC	BC	MBC	S	Computer science	9	18	5		Commerce	14	25	6		Grand total					2	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving
Course	OC	BC	MBC	S																							
Computer science	9	18	5																								
Commerce	14	25	6																								
Grand total																											
M31	<p>Write an HTML program to create the following table: <u>Car Price List</u></p> <table><tr><td colspan="2">Maruti</td><td colspan="2">Tata</td></tr><tr><td>Model</td><td>Price</td><td>Model</td><td>Price</td></tr><tr><td>Maruti 800</td><td>2 Lac</td><td>Sumo</td><td>2 Lac</td></tr><tr><td>9Omni</td><td>3 Lac</td><td>Scorpio</td><td>3 Lac</td></tr></table>	Maruti		Tata		Model	Price	Model	Price	Maruti 800	2 Lac	Sumo	2 Lac	9Omni	3 Lac	Scorpio	3 Lac	2	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving				
Maruti		Tata																									
Model	Price	Model	Price																								
Maruti 800	2 Lac	Sumo	2 Lac																								
9Omni	3 Lac	Scorpio	3 Lac																								
M32	<p>Write an HTML program to create the following table</p> <div><p style="text-align: center;">STUDENTS REPORT</p><table><tr><td colspan="3">Pandit Ravishankar Shukla University</td></tr><tr><td>NAME</td><td>ROLL NO.</td><td>CLASS</td></tr><tr><td>Rahul</td><td>40</td><td>BCA-I</td></tr><tr><td>Preeti</td><td>85</td><td>BCA-I</td></tr><tr><td>Priya</td><td>74</td><td>BCA-I</td></tr><tr><td>Richa</td><td>95</td><td>BCA-I</td></tr></table></div>	Pandit Ravishankar Shukla University			NAME	ROLL NO.	CLASS	Rahul	40	BCA-I	Preeti	85	BCA-I	Priya	74	BCA-I	Richa	95	BCA-I	2	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving		
Pandit Ravishankar Shukla University																											
NAME	ROLL NO.	CLASS																									
Rahul	40	BCA-I																									
Preeti	85	BCA-I																									
Priya	74	BCA-I																									
Richa	95	BCA-I																									
M33	<p>Write an HTML program to create the following table: <u>Students Records</u></p> <table><tr><td>Name</td><td>Subject</td><td>Marks</td></tr><tr><td rowspan="2">Arun</td><td>Java</td><td>70</td></tr><tr><td>C</td><td>80</td></tr><tr><td rowspan="2">Ashish</td><td>Java</td><td>75</td></tr><tr><td>C</td><td>69</td></tr></table>	Name	Subject	Marks	Arun	Java	70	C	80	Ashish	Java	75	C	69	2	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving							
Name	Subject	Marks																									
Arun	Java	70																									
	C	80																									
Ashish	Java	75																									
	C	69																									
M34	<p>Create an HTML document and embed a flash movie in it. Write the HTML coding to display the following table. Also insert an image in the web page.</p> <table><tr><td>Subject</td><td>Max</td><td>Min</td><td>Obtain</td></tr><tr><td>Java</td><td>100</td><td>33</td><td>75</td></tr><tr><td>Multimedia</td><td>100</td><td>33</td><td>70</td></tr><tr><td>Operating System</td><td>100</td><td>33</td><td>68</td></tr><tr><td>C++</td><td>100</td><td>33</td><td>73</td></tr></table>	Subject	Max	Min	Obtain	Java	100	33	75	Multimedia	100	33	70	Operating System	100	33	68	C++	100	33	73	2	L6	4,5,6	PO3	PEO1, PEO3	Designed based
Subject	Max	Min	Obtain																								
Java	100	33	75																								
Multimedia	100	33	70																								
Operating System	100	33	68																								
C++	100	33	73																								
M35	<p>Write the HTML coding to display the following table:</p> <table><tr><td>Name</td><td>Rahul</td></tr><tr><td>Roll No.</td><td>101</td></tr></table>	Name	Rahul	Roll No.	101	2	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving																
Name	Rahul																										
Roll No.	101																										

		Subject	Max	Min	Obtain					g
		Java	100	33	75					
		Multimedia	100	33	70					
M36	Write an HTML program to create a web page with an image as background and the following text: <div style="text-align: right;"><u>New Delhi</u></div> <p>New Delhi, the capital and the third largest city of India is a fusion of the ancient and the modern. The refrains of the Muslim dynasties with its architectural delights, give the majestic ambience of the bygone era.</p> <p>On the other side New Delhi, the imperial city built by British, reflect the fast-paced present. The most fascinating of all is the character of Delhi which varies from the 13th present century mausoleum of the Lodi kings to ultra-modern glass skyscrapers.</p>				1	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving
M37	Write the HTML code to display the following: 1. Actors 1. Bruce Willis 2. Gerard Butler 3. Vin Diesel 4. Bradd Pitt 2. Actress 1. Julia Roberts 2. Angelina Jolie 3. Kate Winslet 4. Cameron Diaz				1	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving
M38	Create the following HTML form. 				1	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving
M39	Create the following HTML form 				1	L3,L4	4,5,6	PO3	PEO1, PEO3	Problem solving
	LIST OF PRACTICALS OF DBMS									

M40	<p>1. Database Schema for customer-sale scenario Customer (Cust id: integer, cust_name: string) Item (item_id: integer, item_name: string, price: integer) Sale(bill_no: integer, bill_data: date, cust_id: integer, item_id: integer, qty_sold: integer)</p> <p>For the above schema, perform the following - a) Create the tables with the appropriate integrity constraints b) Insert around 10 records in each of the tables c) List all the bills for the current date with the customer names and item numbers d) List the total Bill details with the quantity sold, price of the item and the final amount e) List the details of the customer who have bought a product which has a price>200 f) Give a count of how many products have been bought by each customer g) Give a list of products bought by a customer having cust_id as 5 h) List the item details which are sold as of today i) Create a view which lists out the bill_no, bill_date, cust_id, item_id, price, qty_sold, amount</p>	1	L2, L4	4,5,6	PO3	PEO1	Database Design Skills & Problem solving
M41	<p>2. Database Schema for an Employee-pay scenario employee (emp_id:integer, emp_name: string) department(dept_id: integer,dept_name: string) Paydetails (emp_id: integer, dept_id: integer, basic: integer, deductions: integer, additions: integer, DOJ: date) payroll (emp_id: integer, pay_date: date)</p> <p>For the above schema, perform the following - a) Create the tables with the appropriate integrity constraints a. Insert around 10 records in each of the tables b. List the employee details department wise c. List all the employee names who joined after particular date d. List the details of employees whose basic salary is between 10,000 and 20,000 e. Give a count of how many employees are working in each department f. Give a name of the employees whose netsalary>10,000 g. List the details for an employee_id=5</p>	1	L3,L4	1,3	PO2	PEO1, PEO5	Database Design Skills & Problem solving
M42	<p>3. a) Write and execute subprogram to find largest number from the given three number. b) Write and execute subprogram using loop, while and for iterative control statement.</p> <p>4. a) Write and execute subprogram to check whether the given number is Armstrong or not. b) Write and execute subprogram to generate all prime numbers below 100.</p>	1	L3, L4	4,5,6	PO3	PEO1, PEO5	Problem solving
M43	<p>5. a) Write and execute subprogram to demonstrate the goto statement. b) Write and execute subprogram to demonstrate %type and %rowtype attributes.</p> <p>6. a) Write and execute subprogram to demonstrate</p>	1	L2, L3	4,5,6	PO3	PEO1, PEO5	Problem solving

	predefined exception. b) Write and execute subprogram to demonstrate user defined exception.						
M44	7. a) Create a cursor, which display all employee number and names from the EMP table. b) Create a cursor, which update the salaries of all employees as per the given data. 8. a) Create a cursor, which displays names of employees having salary>21000. b) Create a procedure to find reverse of a given number. 9. a) Create a function to check whether given string is palindrome or not. b) Create a function to find sum of salaries of all employees working in depart number.	1	L3,L5	4,5,6	PO3	PEO1, PEO5	Problem solving
		60					

Books Recommended:

S.NO	BOOK NAME	AUTHOR NAME	Publisher	Edition	Year
1.	Visual Basic 6 Programming Black Book	Steven Holzner	Dreamtech Press	2 nd Edition	2002
2.	HTML 5 Black Book, Covers CSS 3, JavaScript	DT Editorial Services	Dreamtech Press	3 rd Edition	2016
3	Learn SQL in one day!: How to easily use the SQL language to create, modify and query your databases (Computer Science and Programming Book 2)	Riccardo Cervelli	Kindle Edition	3 rd Edition	2015

Online Resources:

S.NO	Website	URL	Unit Cover
1.	www.vbtutor.net	https://www.vbtutor.net/vbtutor.html	M1-M38
2.	www.w3schools.com	https://www.w3schools.com/html/html_exercises.asp	M25-M39
3.	www.tutorialaicsip.com	https://www.tutorialaicsip.com/it-402-prac/database-management-system-10/	M40-M44

Table : Mapping of Course Outcomes with Program Outcomes

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	M	L	L	M	-	-	-	-	-	M	-	H	M	M	M
CO2	M	M	M	H	-	-	-	L	-	M	-	L	H	L	M
CO3	H	H	H	H	M	-	-	M	M	H	-	H	M	M	M
CO4	M	H	H	H	H	-	-	L		M	-	M	H	L	
CO5	M	H	H	H	H	-	-	L		M	-	M	H	L	H

H- High, M- Moderate, L- Low, '-' for No correlation

POST GRADUATE DIPLOMA IN COMPUTER APPLICATION (P.G.D.C.A.)

(Paper – X- Lab)

Scheme (w.e.f. A.Y. 2023-24)

PGDCA						1 Year			
Course Name: Project						Course Code: PGDC 110P			
Teaching Scheme (Program Specific)					Examination Scheme (Formative/ Summative)				
Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation				
Hours Per Week					Theory	Internal (IA-30)		Practical / Report	Total
Theory	Tutorial	Practical	Contact Hours	Credits	EYE	CT	TA	PR	100
-	--	2	2	1	-	20	10	70	
IA : In-Yearly Assessment- CT Paper Duration – 1 Hours (There will be three class tests, with the best three being assumed) EYE : End Yearly Examination- Paper Duration - 3 Hours , PR- Practical / Oral / Report file									
Prerequisite :									

Course Objective:

To help the students to understand how to format, edit, and print text documents in V.B. -

- Students will be able to create and use various documents newsletters, brochures, making document using photographs, charts, presentation, documents, drawings and other graphic images.
- To work with the HTML and prepared web pages.
- Students will be able to link the V.B. with Database.

Course Outcomes: Upon completion of the course student will be able to:

S.No.	Course Outcomes	Cognitive levels of attainment as per Bloom's Taxonomy
CO1	Understand the requirement and analyze the client for the software development process.	L6
CO2	Create well-designed, interactive software with respect to current standards and practices Demonstrate in-depth knowledge in an industry-standard software development tool.	L6
CO3	Determine the appropriate use of Language tools to develop and deploy software	L3,L6

Table : Mapping of Course Outcomes with Program Outcomes

Course Outcomes	Bloom's Taxonomy	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	L3,L4	M	L	L	M	M	-	-	-	-	-	H	H	M	M	M
CO2	L3, L4	M	M	M	H	H	-	-	L	-	-	H	L	H	L	M
CO3	L3, L4	H	H	H	H	M	-	-	M	M	-	H	H	M	M	M

H- High, M- Moderate, L- Low, '-' for No correlation

PROJECT

1. Scheme of Examination: The Project should be done by individual student.

Practical examination will be of 3 hours duration. The distribution of practical marks will be as follows:

Software Demonstration	-	40
Project Report (Hardcopy + Softcopy)	-	20
Project Demonstration/Presentation	-	20
Project Viva	-	20
Total	-	100

2. Format of the student project report on completion of the project:

- Cover page as per format
- Certificate of Approval
- Certificate of project guide/Center Manager
- Certificate of the company/Organization
- Certificate of Evaluation
- Declaration/Self Certificate
- Acknowledgement

In the "Acknowledgement" page, the writer recognizes his/her indebtedness for guidance and assistance of the thesis/report adviser and other members of the faculty. Courtesy demands that he/she also recognize specific contributions by other persons or institutions such as libraries and research foundations. Acknowledgements should be expressed simply, tastefully, and tactfully.

- Synopsis of the project
- Main Report
 - Objectives & Scope of the project
 - Theoretical Background of Project
 - Definition of problem
 - System Analysis & Design
 - System Planning (PERT Chart)
 - Methodology adopted; System Implementation & Detail of Hardware & Software used
 - System maintenance & Evaluation
 - Cost and benefit Analysis
 - Detailed Life Cycle of the project

- a. ERD,DFD
- b. InputandOutputScreenDesignProcessinvolved
- c. Methodologyusedfor testing
- d. TestReport,Printoutofthecodesheet
- User/OperationalManual-including security aspects, access rights,backup,Controlsetc.
- Conclusion
- References
- SoftcopyoftheprojectonCD

Formatsovariouscertificatesandformatting styles are asfollows:

1. ProjectReportCoverFormat:
2. CertificateofApprovalbyHeadoftheDepartmentinLetterHead
3. CertificatefromtheGuideinLetterHead
4. Certificate of the Company or Organization from where the Project is done, from the ProjectManager or Project Guide.
5. CertificateofevaluationinthedepartmentLetterHead.
6. DeclarationofStudent/Self Certificate

**Digital and Soft Employability Skills (Year I) Common for All
Scheme (w.e.f. A.Y. 2023-24)**

Program name							Common for All			
Course Name: Digital and Soft Employability Skills – I							Course Code: DSES01			
Teaching Scheme (Program Specific)					Examination Scheme (Formative/ Summative)					
Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation					
Hours Per Week					Theory (100)		Practical		Total	
Theory	Tutorial	Practical	Contact Hours	Credits	IA	ESE	I A	ESE	100	
-	-	4	4	2	-	-	30	70		
Total weightage of marks for continuous evaluation of Term work/Report: Formative (40%), Timely Completion of Practical (40%) and Attendance /Learning Attitude (20%).										
Prerequisite: Basics of computers, Basics of grammar, Basic mathematics										

Course Objective:The Objective of this course is to introduce computer fundamentals, basic soft skills and various employability skills in order to develop all round development of the student.

Course Outcomes:Upon completion of the course student will be able to:

Sr. No.	Course Outcomes	Revised Bloom's Taxonomy Level
CO1	Understand computer fundamentals and its operation	L1
CO2	Understand the utility of various word processing software	L1
CO3	Understand the basics part of communication, barriers and their types	L1
CO4	Understand Nonverbal communication, body language, eye contact, posture	L1
CO5	Enhance ability of solve Quantitative aptitude questions	L1, L2, L3

Detailed Syllabus:

Module No.	Topics	Hrs.	Cognitive levels of attainment as per Bloom's Taxonomy
0	Prerequisite Basics of computers, Basics of grammar, Basic mathematics	02	---
1	Fundamental of Computer Definition of Operating System-Functions of OS -Types of OS, Windows Desk top-GUI : Definition, Standards, Cursors/Pointers, Icons, GUI Menus, GUI-Share Data –Desktop icons and their functions: My computer, My documents, Network neighborhood, Recycle Bin, Quick launch tool bar, System tray, Start menu, Task bar –Dialog Boxes, Maximize, Minimize, close and Resize, Working with Notepad & Word pad: Opening & Saving files, Formatting, Printing, Inserting objects, Finding & replacing text, Creating & Editing Images with Microsoft paint.	07	L1, L2, L3
2	MS Word Introduction to word processing software and its features, creating new document, saving documents, opening and printing documents. Home Tab: setting fonts, paragraph settings, various styles, find & replace, format painter, copy paste and paste special. Insert Tab: Pages, tables, pictures, clipart, shapes, header & footer, word art, equation and symbols. Page Layout Tab: Page setup. page background, paragraph(indent and spacing). Mailing Tab: create envelopes and labels, mail merge. Review Tab:spelling and grammar check, new comment, protect document, View Tab: document views, zoom, window (new window, split, switch window), two assignment and practice test on MS Word	09	L1, L2, L3, L5, L6
3	Communication: An Introduction Definition, Nature and Scope of Communication, Importance and Purpose of Communication, Process of Communication, Types of Communications, Barrier of communication, Mock communication act (Individual and Group)	09	L1, L2, L3, L4
4	Non-Verbal Communication Personal Appearance, Gestures, Postures, Facial Expression, Eye Contacts, Body Language(Kinesics), Time language, Silence, Tips for Improving Non-Verbal Communication, Mock practice ((Individual and Group)	09	L1, L2, L3, L4
5	ES I: Quantitative Aptitude: Numbers and Systems, Percentages and Cents, Averages and Totals,Ratio and Proportion, Partnerships, Profit and Loss, Ages and Eras Analytical reasoning Modules: Alpha Numeric Puzzles, Analytical puzzles, Seating Arrangement, Analytical puzzles, Verbal Ability - English Usage: Vocabulary basics, Grammar basics,CriticalReasoning, Reading comprehension, Tutorial sheets for sets of problem discussion	09	L1, L2, L3, L5
	Total	45	
	Hr.		

Books and References:

Sr. No.	Title	Authors	Publisher	Edition	Year
1.	Basics of Computer	P.K.Singh	VK Publishers	I st	2004
2.	Computer Fundamentals: Concepts, Systems & Applications	PritiSinha, Pradeep K., Sinha	BPB Publications	6th	2004
3.	Learning MS-Word and MS-Excel	Rohit Khurana	APH Publishing Corporation	1 st	2010
4.	Microsoft Word Step by Step (Office 2021 and Microsoft 365)	Joan Lambert	Microsoft Press	1 st	2022
5.	Communication Skills	Sanjay Kumar, PushpLata	Oxford University Press	2 nd	2015
6.	Personality Development and Soft Skills	BarunMitra	Oxford University Press	2 nd	2016
7.	Communication Skills: A Workbook	Sanjay Kumar	Oxford University Press	1 st	2018
8.	The Ace of Soft Skills: Attitude, Communication and Etiquette for Success	Gopalaswamy Ramesh	Pearson Education	1 st	2013
9.	Effective Communication and Soft Skills	NitinBhatnagar, Mamta	Pearson Education India	1 st	2011
10	Quantitative Aptitude for Competitive Examinations	R S Aggarwal	S Chand Publishing	Revised	2017

Online Resources:

S.No.	Website	URL	Module covered
1.	https://www.javatpoint.com/	Learn MS Word Tutorial - javatpoint	M1, M2
2.	https://www.pdfdrive.com/	https://www.pdfdrive.com/10-non-verbal-communication-e43237446.html	M3, M4
3.	https://www.makeuseof.com	https://www.makeuseof.com/tag/improve-communication-skills-7-websites/	M3, M4
4.	https://www.javatpoint.com	https://www.javatpoint.com/aptitude/quantitative	M5

**Holistic and Community Engagement Program (Year I) Common for All
Scheme (w.e.f. A.Y. 2023-24)**

Program name					Common for All				
Course Name: Holistic and Community Engagement Program (HCEP)					Course Code: HCEP 01				
Teaching Scheme (Program Specific)					Examination Scheme (Formative/ Summative)				
Modes of Teaching / Learning / Weightage					Modes of Continuous Assessment / Evaluation				
Hours Per Week					Theory (100)		Practical		Total
Theory	Tutorial	Practical	Contact Hours	Credits	IA	ESE	1 A	ESE	
-	1	-	1	1	-	-	-	-	-
Total weightage of marks for continuous evaluation of Term work/Report: Formative (40%), Timely Completion of Practical (40%) and Attendance /Learning Attitude (20%).									
Prerequisite: Basics of computers, Basics of grammar, Basic mathematics									

Objectives:

- To instill the joy of giving in young minds, turning them into responsible citizens to build up a better society.
- To inculcate the habit of service in students across the University.
- A compulsory course needs to be completed by the students per semester.
- Students to be expected to engage in individual and group acts of service and goodness.

Strategy:

- Do at least one act of individual service per week.
- Record and show this act of service to the Dean/HOD/Coordinator for further guidelines.
- Share and showcase the act of service to the Dean/HOD/Coordinator during the class scheduled per week.
- The class interaction will include checking of record, showing of community-based motivation videos, community-based presentations by students, Role playing etc.
- Participate in monthly review scheduled class by the Dean/HOD/Coordinator for further designing of action plan.
- The students can undertake from below mentioned programs-
Managerial Development Program/ Value education, Atmnirbhar initiatives/ Life skill Programs/Awareness program and cleanliness drives/ slum survey by students/community works/ blood donation camp/ community health camp/legal aid clinic etc.