MCM DAV College for Women, Sector – 36A, Chandigarh

Monthly Teaching Plans (<u>Odd Semester/even semester</u>) Session – (2023-24)

Name of the Teacher Mrs. Vandana Syal

Department Computer Science & Applications

Class B.Sc I Semester I; Section Voc. Subject Computer Applications

Paper -CA01: Fundamentals of IT

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity
	From	To		Undertaken*
1	July 2023	Aug 2023	UNIT - I :Computer Appreciation: Introduction to computers, characteristics of computer; History of computers Classification of computers on basis of size: (Micro, Mini, Mainframe and super computers), Working Principles, Generations; Applications of computers; Commonly used terms—Hardware, Software, Firmware; Basic Computer Organization: Block diagram - Input unit, Processing Unit and Output Unit; Description of Computer input devices: Keyboard, Mouse, Trackball, Light Pen, Touch screens, Scanner, Digital Camera; Output devices: Monitors, Printers, Plotters Computer Memory: Representation of information: BIT, BYTE, Memory, Memory size; Units of measurement of storage; Main memory: Storage evaluation criteria, main memory organization, RAM and OM and their types; Secondary storage devices: Sequential Access Memory, Direct Access Memory, Magnetic Tapes, Magnetic disks, Optical disks: CD, DVD; Memory storage devices: Flash Drive, Memory card	Lecture Method, PPT, Online Sources and demo in Practical
2	Sep 2023	Oct 2023	UNIT - II :Types of software: System, Utility and Application software; Programming Languages: Generation of Languages; Translators - Interpreters, Compilers, Assemblers and their comparison. Introduction to Computer based Problem-solving: Steps of development developing of a program, Algorithm development, Flowchart, Pseudo codes, basic programming constructs, Documentation, Testing and Debugging UNIT - III :Understanding Number System: Computer arithmetic; Number systems: Decimal, Binary, Octal, Hexadecimal, Conversions between different number systems; Character Codes: Introduction, need, ASCII, EBCDIC and Unicode character sets	Lecture Method, PPT, Online Sources and demo in Practical
3	Nov 2023	Nov 2023	UNIT - IV Understanding OS using DOS: Intro. to operating systems and its functions, DOS and versions of DOS, Booting sequence; Warm and Cold Boot; Concepts of files and directories, Wildcard characters, Types of DOS commands, Internal Commands: cls, copy con, type, ver, volume, prompt, path name, date, time, md, cd, rd, copy, Del; External Commands: doskey, format, unformat, xcopy, fdisk, Attrib, chkdsk; Introduction to Config.Sys and Autoexec.Bat. Windows Operating System: Anatomy of windows, Taskbar Settings, Managing folders and files using Windows Explorer, Searching Files and folders, Customizing Windows, Paint, WordPad, Notepad, Control Panel.	Lecture Method, PPT, Online Sources and demo in Practical

Name of the Teacher/s: Dr. Indu Arora

Department: DCSA
Class: B.Sc. CA 1st year 1st semester Section (s): Voc
Subject: Computer Applications-Application Software CA02

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	(Monthly) From To			Undertaken*
	From			
1.	July	Aug 2023	Word: Opening, Creating, Saving, Printing and	Lecture method, PPT,
	2023		closing Documents, Menu Toolbars, Editing	Online sources,
			Text, Finding and Replacing Text, Spell	Demonstrations and
			Check, Autocorrect; Auto text, Character	discussions.
			formatting, Page formatting. Adding Borders	
			and shading, Adding Headers and Footers,	
			Setting up Multiple columns, Adjusting	
			Margins and Hyphenating Documents; Mail	
			Merge, Inserting Pictures, Tables, Macros.	
2.	Sep	Oct 2023	Excel: Worksheet overview, Row, Column,	Lecture method, Online
	2023		Cells, Menus, Creating, Opening, Saving and	sources, demonstrations
			printing worksheet; Auto fill, working with	through software and
			Formulae, Data formatting, Working with	discussions.
			Ranges, Absolute, relative and Mixed	
			addressing, creating, sorting and filtering Data	
			Base; Charts, Macros, Functions.	
			MS-Power point;	
3.	Nov	Nov 2023	Access: Introduction to database, Creating	Lecture method, PPT,
	2023		database using Wizard or from scratch,	Online sources,
			creating tables using wizard, entering data,	demonstrations through
			using design view, saving, inserting, editing,	software, class tests, and
			Changing properties of fields, setting primary	discussions, revisions
			key.	

Name of the Teacher/s
Department
Class B.Sc II Sem III; Subject
Paper CA05: Programming in C++

Mrs. Vandana Syal
Computer Science & Applications
Computer Applications; Section Voc.

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*	
	From	To			
	July 2023	Aug 2023	Introduction to OOP: Object, Class, Encapsulation, Data hiding, Inheritance and Polymorphism; Analysis and design of system using object oriented approach C++ Basics: Token, keywords, Identifiers, Basic data types, user defined and derived data types, symbolic constants, declaration of variables, dynamic initialization of variables, reference variables, operators in C++, I/O streams, Control structures, Classes and Objects: data members and Specifying a class, defining data members and member functions, private and public member functions, member function definition inside/outside the class declaration, scope resolution operator, nesting of member functions, creating and declaring objects, accessing class data members, accessing member functions, static member functions	Lecture Method, PPT, Online Sources and demo in Practical	
	Sept 2023	Sep 2023	Functions in C++:Function prototyping, pass by value, pass by reference, In line functions, default arguments, const arguments, function overloading, Friend functions, Objects as function arguments, returning objects; Constructors: default constructors, parameterized constructors, multiple constructors in a class, copy constructors, dynamic constructors; Destructors: Definition and use	Lecture Method, PPT, Online Sources and demo in Practical	
	Oct 2023	Oct 2023	Arrays and Strings: creating and manipulating arrays with in a class, arrays of objects, Creating and manipulating String Objects, Accessing Characters in strings; Extending Classes using Inheritance: base class, derived class, defining derived classes, visibility modes: private, public, protected; single inheritance: privately derived, publicly derived; making a protected member inheritable, access control to private and protected members by member functions of a derived class, multilevel inheritance, virtual base classes, abstract classes, nesting of classes Pointers Virtual Functions and polymorphism: virtual and pure virtual functions, Function overloading, operator overloading	Lecture Method, PPT, Online Sources and demo in Practical	
	Nov 2023	Nov 2023	Console I/O Operations: C++ Stream Classes, Unformatted I/O functions-put(), get(), getline(), write(), Formatting with ios class functions and flags, Manipulators; Files and Streams: Text and binary streams, The stream class hierarchy, Processing files, declaring files, opening files using open() function or constructor function, closefiles, opening files using open() function or constructor function, closing files, String I/O, Sequential and random Access, File updation	Lecture Method, PPT, Online Sources and demo in Practical	

Name of the Teacher: Ms Aashita Jain

Department: Computer Science and Applications

Class: B.Sc Voc.(CA)- II year Semester: 3rd Section: Computer Applications

Subject: Web Designing (CA-06)

S.No.	Date (Mon	thly)	Topics to be Covered	Academic Activity Undertake n*
	From	То		
1	July 2023	Aug 2023	Web Terminology: Web Server; Web Client/Browser, understanding how a Browser communicates with a Web Server, Internet, Intranet, Extranet, WWW, URL Introduction to HTML: Structure of an HTML program, Paragraph Breaks, Line Breaks; Emphasizing Material in a Web Page (Heading Styles, Drawing Lines); Text Styles (Bold, Italics, Underline); Other Text Effects (Centering (Text, Images etc.); Lists: Unordered List, Ordered Lists, Definition lists; Adding Images: Img element using Border, Width, Height, Align, ALT Attributes; Tables: Caption Tag, Width, Border, Cell padding, Cell spacing, BGCOLOR, COLSPAN and ROWSPAN Attribute	Lecture Method, PPT, Online Sources and demo in Practical
2	Sep 2023	Sep 2023	Linking Documents: Anchor tag, External Document References, Internal Document References and Image Maps Frames: understanding frames, creating frames, Targeting Named Frames Forms: Attributes of Form element, Input element: Text Element, Password, Button, Submit Button, Reset Button, The Checkbox, Radio, TextArea, Select and Option	Lecture Method, PPT, Online Sources and demo in Practical
3	Oct 2023	Oct 2023	Cascading style sheets (CSS): Style tag, Link tag, Types of CSS: In-Line, Internal, External Java Script: Features, tokens, data types, variables, operations, control constructs, strings arrays, functions, core language objects, client side objects, event handling. Applications related to client side form validation, Other Built-In Objects in JavaScript: The String Object, The Math Object, and The Date Object; User Defined Objects: Creating a User Defined Object, Instances, Objects within Objects	Lecture Method, PPT, Online Sources and demo in Practical
4	Nov 2023	Nov 2023	Creating Web Pages using Dreamweaver Introduction to Dreamweaver, Understanding Workspace Layout, Managing Websites, Creating a Website, Using Dreamweaver Templates, Adding New Web Pages, Text and Page Format, Inserting Tables, Lists, Images, Adding Links.	Lecture Method, PPT, Online Sources and demo in Practical

Name of the Teacher/s Dr Indu Arora

Department Computer Science & Applications

Class <u>BSc III</u> 5th Semester; Section (s) <u>A(Voc)</u>

Subject Computer Applications -Paper-CA09: Programming with VB.NET

S.	Da		Topics to be Covered	Academic Activity
No.	(Mon From	tniy) To		Undertaken*
1	July 2023	Aug 2023	UNIT- I Overview of the Visual Studio .NET IDE: Introduction to .NET Framework and the Common Language Runtime, Introduction to Visual Studio.NET IDE: Menu Bar and Tool Bar, Design Window, Code Editor, Server Explorer, Solution Explorer, Toolbox, Properties Window, Object Browser, Class view Window, Working with windows forms and events, Adding different controls of Toolbox (Text Box, Label, Check Box, Radio Button, Button, Frame) to Forms, Setting their Tab orders, enabling and disabling controls	Lecture method, PPT, On line resources, Demonstrations, Case studies, assignments
2	Sep 2023	Sep 2023	Adding different controls of Toolbox (List Box, Combo Box, Picture Box, Progress Bar, Timer) to Forms UNIT- II Basics of VB.Net: Constants, Variables, data types, Operators: Arithmetic, Concatenation, Comparison, logical operators, and assignment operators, Control structures: If, if/then/else selection structures, Select case Multiple-selection structure, While, do while, do until, For/Next, For each repetition structure	Lecture method, PPT, On line resources, Demonstrations, Case studies, assignments
3	October 2023	October 2023	UNIT-III Procedures: Introduction, sub Procedures, function procedures, event procedures, commonly used Form events, creating message boxes, input boxes Arrays: Declaring and allocating Arrays, Strings: Using Strings and String functions: len, right, left, ucase, lcase, ltrim, trim	Lecture method, PPT, On line resources, Demonstrations, Case studies
4	Nov 2023	Nov 2023	Dialog boxes Designing Menus: The MenuStrip control and ToolStripMenuItem objects, working with Multiple Forms, Setting the Startup Form UNIT - IV Working with Data and ADO.NET: Understanding ADO.net Object model, components, Basic operations in ADO.net, Data Reader, Data Adapter and Data sets, connecting to and querying a data source, Using Data Grid view for viewing the records from tables.	Lecture method, PPT, On line resources, Demonstrations, Discussions of Question Banks, Case studies

Name of the Teacher/s- Ms. Komal Rathee

Department: Department of Computer Science & Applications Class: BSc. 3(CAS)

Section (s): A Semester: 5th

Subject: Database Management using Oracle (Paper CA10)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		Chucitaken
1	July 2023	Aug 2023	Database Concepts: Introduction to databases, need, database architecture, Terminology: Tuple, Degree, attributes, Domain.	PPT, Assignments, Online videos, Images.
1	Sep 2023	Sep 2023	Primary key, Foreign keys, candidate keys; The 12 Rules (Codd's Rule) for an RDBMS, Normalization: First, second and third Normal Form, Boyce Codd Normal Form Understanding SQL-1: Data Types, Creating Tables, Creating a Table with data from Another table, Inserting Values into a Table, Updating Column(s) of a Table, Deleting Row(s) from a Table, Dropping a Column, Querying database tables, Conditional retrieval of rows	PPT, Assignments, Online videos, Images, Live demonstration of SQL commands.
2	Oct 2023	Oct 2023	Working with Null Values, Matching a pattern from a table, ordering the result of a Query Aggregate Functions, Grouping the Result of a Query, creation and deletion of Views Understanding SQL-II: Managing privileges with Grant and Revoke Command, COMMIT and ROLLBACK, Functions: Arithmetic Functions, Character Functions, Date Functions, Group Functions, Querying Multiple Tables using Equi-Joins, Cartesian Joins, Outer Joins, Self-Joins, SET Operators: Union, Intersect, Minus; Introduction to Nested Queries	PPT, Assignments, Online videos, Brain Storming, Discussions, Oral/ Written Test, Related Material, Assignments, Live demonstration of SQL commands, Peer Learning,
3	Nov 2023	Nov 2023	PL/SQL: Introduction to PL/SQL, The Advantage of PL/SQL, PL/SQL Block Structure, PL/SQL Architecture, Fundamentals of PL/SQL, PL/SQL Data Types, Variables and Constants, Scope and Visibility of a Variable, Assignments and Expressions, Operator Precedence, Conditional and Iterative Control, Cursor Management in PL/SQL, Implicit/explicit Cursor Attributes, Exception Handling in PL/SQL; Predefined Exceptions, User Defined Exceptions.	PPT, Assignments, Live demonstration PL/SQL commands, Related Material

MCM DAV College for Women, Sector – 36A, Chandigarh **Monthly Teaching Plans (Even Semester) Session** – (2023-24)

Mrs. Vandana Syal Name of the Teacher

Computer Science & Applications Department Class B.Sc I semester 2nd; Subject Computer Applications; Section Voc. Paper CA03: C Programming Language

S.No.		Date onthly)	Topics to be Covered	Academic Activity Undertaken*
	From	То		
	Jan 2023	Jan 2023	UNIT - I: Basics of 'C' Language: History, Structure of a C program, Data types, Constants and variables, Operators and Expressions, I/O functions: Formatted & Unformatted Input/Output Control constructs: If, Ifelse, nested if-else, else-if ladder, switch, goto, for, while, do while, jumps in loops: break and continue	Lecture Method, PPT, Online Sources and demo in Practical
	Feb 2023	Feb 2023	UNIT - II: Preprocessor: #define, #include, #undef, #conditional compilation directives (#if, #else, #elif, #endif, #ifdef and #ifndef), Storage classes, Header files (stdio.h, ctype.h, string.h, math.h, stdlib.h, time.h); Type casting, Type convesion, Scope Rules: Local and Global variable; Functions: library functions, user defined functions, scope rule of functions, Parameter passing: call by value and call by reference, calling functions with Arrays, Recursion: Basic concepts, Design examples (Tower of Hanoi)	Lecture Method, PPT, Online Sources and demo in Practical
	March 2023	March 2023	UNIT - III - Arrays: Creating and using One dimensional and two dimensional arrays; Strings: Introduction to strings, declaring and initializing string variables, reading and writing; strings, string handling functions Pointers: & and * operators, Declaring and initializing pointers, Pointer expression, Pointer assignments, Pointer arithmetic. The dynamic memory allocation functions – malloc and calloc, Pointer vs Arrays, Passing Array to functions, Arrays of pointers, and Functions with variable number of arguments.	Lecture Method, PPT, Online Sources and demo in Practical
	April 2023	April 2023	UNIT - IV: Structures: Basics of Structures, Declaring structure, Referencing structure elements, Array of structures, passing structures to functions. Unions: Declaration, Uses; Enumerated data types, type def, File Handling: Introduction, creating a data file, opening & closing a data file, file Pointers, file accessing functions (fopen, fclose, putc, getc, fprint); argc and argv; File opening modes: Text mode, Binary mode.	Lecture Method, PPT, Online Sources and demo in Practical

Name of the Teacher/s Dr Indu Arora

Department Computer Science & Applications

Class BScI 2nd semester Section (s) Voc

Subject: Operating System Concepts (CA-04)

S.No			Date Ionthly)	Topics to be Covered	Academic Activity Undertaken*
•		From	To	-	Chacttaken
1.	Jan 2023	Jan 2023	system view, OS and its operations, Storage strusystem Architecture: Sin Multiprocessor systems Systems, Special purpos	functions, User view, functions, Computer system ucture, I/O structure, Computer ngle processor systems, s, clustered systems, Distributed se systems: Real time embedded estems, Handheld systems	
2.	Feb 2023	Feb 2023	UNIT - II Process Mana PCB, definition of C Scheduling: Basic conce scheduling criteria, an Priority, Round Robin, Multiple Feedback Que Model, Resource Al sufficient conditions	gement: Process, Process life cycle, ontext switch and thread, CPU epts, Different types of schedulers, d Scheduling algorithm: FCFS, SJF, Multiple Queue scheduling and eue scheduling; Deadlocks: System location graph, necessary and for Deadlocks, Introduction to deadlocks, deadlock detection and	Lecture Method, Demonstrations, PPT, Assignments,
3.	Mar 2023	Mar 2023	address space, Dynam Introduction to Pag Memory-Demand pag	management: Logical vs Physical nic loading and linking, Swapping, ing and Segmentation, Virtual aging, Introduction to Page ms: FIFO, Optimal, LRU, Stack proximation	Class Test, Case studies, online sources, Discussions
4.	April 2023	April 2023	methods, contiguous a allocation; Directory Strand Acyclic structure; E hash table; Free Space grouping, Device Mascheduling, FCFS, SS scheduling algorithms, drivers, Interrupt drive	: File System structure, Allocation llocation, linked allocation, indexed ructure: Single level, Two level, Tree Directory implementation-linear list, Management- Bit vector, linked list, anagement: Disk structure, disk STF, SCAN, C-SCAN and LOOK Control of various devices. Device n and poll driven data transfersOS aputer System Architecture, Storage	

Name of the Teacher: Ms Aashita Jain

Department: Computer Science and Applications

Class: B.Sc Voc.(CA)- II year Semester: 4th Section: Voc

Subject: Data Structure (CA-07)

S.No.	Da (Mor	nte nthly)	Topics to be Covered	Academic Activity
	From	То		Undertake n*
1	Jan 2023	Jan 2023	Introduction to data structure: basics and notations, introduction to complexity, Arrays: Introduction, various operations on Arrays like insertion, deletion, Searching (Binary and Linear Search) and Sorting (Bubble sort, Insertion sort, Selection sort)	Lecture Method, PPT, Online Sources and demo in Practical
2	Feb 2023	Feb 2023	Linked list: Introduction, declaration, operations:- traversing, searching, inserting, deleting; Introduction to circular list Stacks: Array representation of a stack, operations- initialization, push, pop, empty, and full; Applications: Expression evaluation, expression conversion, recursion	Lecture Method, PPT, Online Sources and demo in Practical
3	Mar 2023	Mar 2023	Queues: Introduction, memory representation, operations- add, removes, initialization; applications Trees: Definition and Basic concepts, Linked Tree Representation, Representation in Contiguous Storage, Binary Tree, Binary Tree Traversal, Searching, Insertion and deletion in Binary Trees	Lecture Method, PPT, Online Sources and demo in Practical
4	April 2023	April 2023	Graphs: Graphs and their application, Sequential and Linked representation of Graph, Traversing a graph (DFS and BFS).	Lecture Method, PPT, Online Sources and demo in Practical

Name of the Teacher/s
Department
Computer Science & Applications
Class B.Sc II- 4th semester; Subject Computer Applications; Section Voc.
Paper CA08: Java Programming

S.No.	Da (Mon	ite ithly)	Topics to be Covered	Academic Activity Undertaken*
	From	То		
	Jan 2023	Jan 2023	Fundamentals of Java: Introduction to Java and its features, Java Vs. C++, ByteCode, Java virtual machine, constants, variables, data types, operators, expressions, control structures, defining class, creating objects, accessing class members, constructors, method overloading Inheritance: Basics, member access, using super to call super class constructors, creating a multi level hierarchy, method overriding, Dynamic method dispatch, using abstract classes, using Final.	Lecture Method, PPT, Online Sources and demo in Practical
	Feb 2023	Feb 2023	Arrays and String handling: creating and using arrays, understanding string and StringBuffer class and various string functions Interfaces: creating and using Interfaces, Implementing inheritance and multiple inheritance using Interfaces. Packages: understanding packages and system defined packages, creating and using user defined packages	Lecture Method, PPT, Online Sources and demo in Practical
	Mar 2023	Mar 2023	Exception Handling: Fundamentals, exception types, using Try and catch, Multiple Try and Catch clauses, Nested Try statements, Built –in exceptions. Multi-threaded Programming: Understanding Multithreading, Thread Life Cycle, Creating threads using The thread class and runnable Interface, creating Multiple Threads, Resuming and stopping Threads, Thread priorities, synchronizations	Lecture Method, PPT, Online Sources and demo in Practical
	April 2023	April 2023	Applet fundamentals: Introduction, Types of applet, Life Cycle, Incorporating an applet into web page using Applet Tag, running applets; using Graphics class and its methods to draw lines, rectangles, circles, ellipses, arcs and polygons	Lecture Method, PPT, Online Sources and demo in Practical

S.	Date (Monthly) From To		Topics to be Covered	Academic
No.				Activity
				Undertaken*
1	Jan 2023	Jan 2023	UNIT-I Introduction to Computer networks and applications: Network Structure and Architecture, Network Hardware and Software (protocol hierarchies, design issues for layers, interfaces and services: connection oriented and connection less), Network structure and architecture-point to point, multicast, broadcast, Classification of networks on the basis of Geographical Span (PAN, LAN, MAN and WAN), LAN topologies(Bus, Ring, Star, Mesh, Tree and Hybrid). Network Connecting Devices: Repeaters, Hubs, Bridges, Routers, Gateways and Switches Introduction to Data Communication: Analog Signal, Digital Signal, Analog vs Digital Communication	Lecture method, PPT, On line resources, Demonstrations, assignments, Peer Learning
2	Feb 2023	Feb 2023	UNIT-II: Network models: OSI reference model, TCP/IP model and their Comparison. Physical Layer: Types of Transmission media, Guided (Twisted-pair, Coaxial and Optical fiber) and Unguided (Radio, Microwave and infrared), Switching: Circuit switching, Packet Switching, Message Switching, modems, Modulation techniques: AM, PM, FM; Multiplexing Techniques: definition and Types.	Lecture method, PPT, On line resources, Case studies, Assignments, Peer Learning
3	Mar 2023	Mar 2023	UNIT-III: The Data Link Layer: Design Issues, Error Detection and Correction: Nature of errors, Parity Check, checksum, CRC, Hamming Code, Elementary Data Link Protocols: Simplex. Stop and Wait Protocol, Sliding Windows Protocol: one Bit sliding windows protocol, go back n, selective repeat, HDLC: High Level Data Link Protocol.	Lecture method, PPT, Assignments, Peer Learning
4	April 2023	April 2023	UNIT-IV: The Network Layer: Design Issues, Routing Algorithms (Shortest Path, Flooding, Flow Based, Distance Vector, Link State, Broadcast), Congestion Control Algorithms and their general principles (Leaky Bucket, Token Bucket)	Lecture method, PPT, Case studies, assignments Question Banks, Peer Learning

Name of the Teacher/s Dr Indu Arora

Department Computer Science & Applications
Class BScIII 6th semester Section (s) Voc
Subject Computer Applications; Paper: CA12: Working with Linux,

S.	Date		Topics to be Covered	Academic
No.		onthly)		Activity
1	From	To	TINITED TILL I A T T TZ 1 T T T	Undertaken*
1	Jan 2023	Jan 2023	UNIT- I Introduction to Linux: Kernel, Linux's shell, Features of Linux, History, Minimum system requirements, Boot and Root disks, Starting and stopping Linux system, passwords, logging in and out, terminal Handling commands: who, Understanding wildcards, Environment variables, Understanding I/O Redirection and Piping: Introduction, cut, paste, sort, tee; Introduction to Regular Expressions and grep, Process Management: Types of processes, managing processes with ps, bg, fg, nice, kill	Lecture method, PPT, On line resources, Demonstrations, Peer Learning
2	Feb 2023	Feb 2023	UNIT- II Using file system: Introduction to common types of files, Filenames, Introduction to different types of directories: Parent, Subdirectory, Home directory; rules to name a directory, understanding Important directories in Linux File System, Absolute and relative filenames, creating and using files and directories(mkdir, cd cat), listing files (ls, ls-l), pwd, moving and copying files and directories (mv, cp), Removing files and directories (rm, rmdir), using wildcards with files and directories, File and directory permissions using relative and absolute methods, Changing group ownership, umask settings	Lecture method, PPT, On line resources, Demonstrations, Case Studies, Peer learning
3	Mar 2023	Mar 2023	UNIT - III Vi editor: starting vi, vi modes, inserting text, quitting vi, deleting text, copying and moving text, searching and replacing text Introduction to shell programming: Defining Variables, Unsetting Variables, Environment Variables, Substitution, Filename Substitution (Globbing), Variable Substitution, Command and Arithmetic Substitution, Quoting, Quoting with Backslashes, Using Single Quotes, Using Double Quotes, Quoting Rules and Situations, The if Statement, The case Statement, The while Loop, The for and select Loops, Loop Control	Lecture method, PPT, On line resources, Demonstrations, Case studies
4	April 2023	April 2023	UNIT-IV: Understanding System Administration activities: Superuer (su) command, Taking backups using tar, Managing disk space with df and du, Mounting and Unmounting file system with mount and unmount, Managing users	Lecture method, PPT, On line resources, Demonstrations, Question banks Case studies