

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Odd Semester/even semester)
Session – (2022-23)

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 Undertaken*
	From	To		
1	Sept 2022	30 Sept 2022	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	Oct 2022	31 Oct 2022	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 2022	20 Nov 2022	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*
	From	To		
1.	Sept 2022	30 Sept 2022	Word: Opening, Creating, Saving, Printing and closing Documents, Menu Toolbars, Editing Text, Finding and Replacing Text, Spell Check, Autocorrect; Auto text, Character 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.	Lecture method, PPT, Online sources and discussions.
2.	Oct 2022	31 Oct 2022	Excel: Worksheet overview, Row, Column, Cells, Menus, Creating, Opening, Saving and printing worksheet; Auto fill, working with Formulae, Data formatting, Working with Ranges, Absolute, relative and Mixed addressing, creating, sorting and filtering Data Base; Charts, Macros, Functions.	Lecture method, demonstrations through software and discussions.
3.	Nov 2022	20 th Nov 2022	Power point; Access: Introduction to database, Creating database using Wizard or from scratch, creating tables using wizard, entering data, using design view, saving, inserting, editing, Changing properties of fields, setting primary key.	Lecture method, PPT, Online sources, demonstrations through software, class tests, and discussions, revisions

Name of the Teacher/s **Mrs. Vandana Syal**
 Department **Computer Science & Applications**
 Class **B.Sc II Sem III ; Subject Computer Applications; Section Voc.**
 Paper **CA05: Programming in C++**

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
	Aug, 2022	31Aug 2022	<p>Introduction to OOP: Object, Class, Encapsulation, Data hiding, Inheritance and Polymorphism; Analysis and design of system using object oriented approach</p> <p>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,</p> <p>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</p>	Lecture Method, PPT, Online Sources and demo in Practical
	Sept 1	Sept 30	<p>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 rguments, returning objects;</p> <p>Constructors : default constructors, parameterized constructors,multiple constructors in a class, copy constructors, dynamic constructors; Destructors: Definition and use</p>	Lecture Method, PPT, Online Sources and demo in Practical
	Oct 1	Oct 31	<p>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, efining 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</p> <p>Virtual Functions and polymorphism: virtual and pure virtual functions, Function overloading, operator overloading</p>	Lecture Method, PPT, Online Sources and demo in Practical
	Nov 1	Nov 20	<p>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</p>	Lecture Method, PPT, Online Sources and demo in Practical

Name of the Teacher: Ms Sonali Mehndiratta

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 (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	13 Aug, 2022	31 Aug, 2022	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	1 Sep, 2022	30 Sep, 2022	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	1 Oct, 2022	31 Oct, 2022	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	1 Nov, 2022	Till End of Semester	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 **BSc III 5th Semester; Section (s) A(Voc)**

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

S. No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	13 Aug, 2022	31Aug, 2022	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	1 Sep,2022	30 Sep 2022	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	1 October, 2022	31 October, 2022	UNIT-III Procedures: Introduction, sub Procedures, function procedures, event procedures, commonly used Form events, creating message boxes, input boxes Strings: Using Strings and String functions: len, right, left, ucase, lcase, ltrim, trim	Lecture method, PPT, On line resources, Demonstrations, Case studies
4	1 Nov, 2022	Till the end of session in November, 2022	Arrays: Declaring and allocating Arrays, 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. Sandeep Kaur

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		
1	13 Aug, 2022	30 th Aug 2022	Database Concepts: Introduction to databases, need, database architecture, Terminology: Tuple, Degree, attributes, Domain.	PPT, Assignments, Online videos, Images.
1	1 Sep, 2022	30 Sep, 2022	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	1 Oct, 2022	31 Oct, 2022	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	1 Nov, 2022	Till end of semester	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 – (2022-23)

Name of the Teacher Mrs. Vandana Syal
Department Computer Science & Applications
Class B.Sc I semester 2nd ; Subject Computer Applications; Section Voc.
Paper CA03: C Programming Language

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
	15 Jan 2022	31 st Jan 2022	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, If-else, 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
	1 st Feb	28 Feb	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 conversion, 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
	1 st March	31 March	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
	1 st April	Till the end of the Session	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, fprintf); 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 (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	15 th Jan, 2023	31 Jan 2023	UNIT – I: Operating System: Introduction, User view, system view, OS and its functions, Computer system operations, Storage structure, I/O structure, Computer system Architecture: Single processor systems, Multiprocessor systems, clustered systems, Distributed Systems, Special purpose systems: Real time embedded systems, Multimedia systems, Handheld systems	Lecture Method, Demonstrations, PPT, Assignments, Class Test, Case studies, online sources, Discussions
2.	Feb 2023	28 Feb 2023	UNIT - II Process Management: Process, Process life cycle, PCB, definition of Context switch and thread, CPU Scheduling: Basic concepts, Different types of schedulers, scheduling criteria, and Scheduling algorithm: FCFS, SJF, Priority, Round Robin, Multiple Queue scheduling and Multiple Feedback Queue scheduling Deadlocks: System Model, Resource Allocation graph, necessary and sufficient conditions for Deadlocks, Introduction to methods for handling deadlocks, deadlock detection and recovery	
3.	1 Mar 2023	31 Mar 2023	UNIT - III Memory management: Logical vs Physical address space, Dynamic loading and linking, Swapping, Introduction to Paging and Segmentation, Virtual Memory-Demand paging, Introduction to Page replacement algorithms: FIFO, Optimal, LRU, Stack algorithms and LRU approximation	
4.	1 April 2023	Till the end of session	UNIT - IV File System: File System structure, Allocation methods, contiguous allocation, linked allocation, indexed allocation; Directory Structure: Single level, Two level, Tree and Acyclic structure; Directory implementation-linear list, hash table; Free Space Management- Bit vector, linked list, grouping, Device Management: Disk structure, disk scheduling, FCFS, SSTF, SCAN, C-SCAN and LOOK scheduling algorithms, Control of various devices. Device drivers, Interrupt driven and poll driven data transfers OS and its functions, Computer System Architecture, Storage Structure	

Name of the Teacher: Ms Sonali Mehndiratta

Department: Computer Science and Applications

Class: B.Sc Voc.(CA)- II year

Semester: 4th

Section: Voc

Subject: Data Structure (CA-07)

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertake n*
	From	To		
1	16 Jan 2023	31 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	1 Feb, 2023	28 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	1 Mar, 2023	30 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	1 April, 2023	Till end of Semester	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 **Mrs. Vandana Syal**
 Department **Computer Science & Applications**
 Class B.Sc II- 4th semester ; Subject Computer Applications; Section Voc.
 Paper CA08: Java Programming

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
	15 th Jan, 2023	31 Jan 2023	<p>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</p> <p>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.</p>	Lecture Method, PPT, Online Sources and demo in Practical
	Feb 2023	28 Feb 2023	<p>Arrays and String handling: creating and using arrays, understanding string and StringBuffer class and various string functions</p> <p>Interfaces: creating and using Interfaces, Implementing inheritance and multiple inheritance using Interfaces.</p> <p>Packages: understanding packages and system defined packages, creating and using user defined packages</p>	Lecture Method, PPT, Online Sources and demo in Practical
	1 Mar 2023	31 Mar 2023	<p>Exception Handling: Fundamentals, exception types, using Try and catch, Multiple Try and Catch clauses, Nested Try statements, Built –in exceptions.</p> <p>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</p>	Lecture Method, PPT, Online Sources and demo in Practical
	1 April 2023	Till the end of session	<p>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</p>	Lecture Method, PPT, Online Sources and demo in Practical

Name of the Teacher/s Ms Sandeep Kaur

Department Computer Science & Applications Class BScIII 6th semester (s) Section Voc

Subject Computer Applications (Paper CA11: Computer Networks)

S. No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	15 th Jan, 2023	31 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	28 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	1 Mar 2023	31 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	1 April 2023	Till the end of session	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. No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	15 th Jan, 2023	31 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	28 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	1 Mar 2023	31 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	1 April 2023	Till the end of session	UNIT-IV: Understanding System Administration activities: Superuer (su) command, Taking backups using tar, Managing disk space with df and du, Mounting and Un-mounting file system with mount and unmount, Managing users	Lecture method, PPT, On line resources, Demonstrations, Question banks Case studies