TENTATIVE LESSON PLAN (ODD SEMESTER)

SESSION: 2025-26

Name of the Teacher: Seema Rani ***Department: Computer Science***

Subject/Course: Logical Organization of Computer(B23-CC-C1) ***Programme: Bachelor of Physical Science***

Semester: 1st

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Number Systems: Binary, Octal, Hexadecimal etc. Conversions from one number system to another, BCD Number System. BCD Codes: Natural Binary Code, Weighted Code, Self-Complimenting Code, Cyclic Code. Error Detecting and Correcting Codes. Character representations: ASCII, EBCDIC and Unicode. Number Representations: Integer numbers - sign-magnitude, 1's & 2's complement representation. Real Numbers normalized floating point representations.*	*01.08.2025 to 31.08.2025*
2.	*Binary Arithmetic: Binary Addition, Binary Subtraction, Binary Multiplication, Binary Division using 1's and 2's Compliment representations, Addition and subtraction with BCD representations. Boolean Algebra: Boolean Algebra Postulates, basic Boolean Theorems, Boolean Expressions, Boolean Functions, Truth Tables, Canonical Representation of Boolean Expressions: SOP and POS, Simplification of Boolean Expressions using Boolean Postulates & Theorems, Kaurnaugh-Maps (upto four variables), Handling Don't Care conditions*	*01.09.2025 to 30.09.2025*
3.	*Logic Gates: Basic Logic Gates – AND, OR, NOT, Universal Gates – NAND, NOR, Other Gates – XOR, XNOR etc. Their symbols, truth tables and Boolean expressions. Combinational Circuits: Design Procedures, Half Adder, Full Adder, Half Subtractor, Full Subtractor, Multiplexers, Demultiplexers, Decoder, Encoder, Comparators, Code Converters.*	*01.10.2025 to 31.10.2025*
4.	*Sequential Circuits: Basic Flip- Flops and their working. Synchronous and Asynchronous Flip –Flops, Triggering of Flip-Flops, Clocked RS, D Type, JK, T type and Master-Slave Flip-Flops. State Table, State Diagram and State Equations.Flip-flops characteristics & Excitation Tables. Sequential Circuits: Designing registers – Serial-In Serial-Out (SISO), Serial-In Parallel-Out (SIPO), Parallel-In Serial-Out (PISO) Parallel-In Parallel-Out (PIPO) and shift registers.*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (ODD SEMESTER)

SESSION: 2025-26

Name of the Teacher: Seema Rani ***Department: Computer Science***

Subject/Course: Basics of Computer Science (B23-CC-M1) ***Programme: Bachelor of Physical Science***

Semester: 1st

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Introduction to Computers: Definition of Computers, History and Generations of Computers, Characteristics of computer, Classification of Computers. Fundamental Block diagram of Computer: CPU, Input & Output Unit.*	*01.08.2025 to 31.08.2025*
2.	*Software: Definition of Software, Types of Software-System software, Application software and Utility software. Types of Computer Languages, Assemblers, Interpreters, Compiler*	*01.09.2025 to 30.09.2025*
3.	*Introduction to Operating Systems: Types of Operating System, Functions of Operating System. Windows: Introduction to Windows, Starting Windows, Desk Top, Task Bar, Opening and closing applications, icons- creating, renaming and removing. Date and Time setting, Working with files and folders-creating, deleting, opening, finding, copying, moving, and renaming.*	*01.10.2025 to 31.10.2025*
4.	*Networking: Concept, Basic Elements of a Communication System, Data Transmission Media, LAN, MAN, WAN. Introduction of Internet and WWW, Basic working of a Web Browser, Introduction to popular web browsers.*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (ODD SEMESTER)

SESSION: 2025-26

Name of the Teacher: Seema Rani ***Department: Computer Science***

Subject/Course Operating System and Linux (PGD25-CAP-102) ***Programme: PGDCA***

Semester: 1st

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Introduction to Operating Systems: Definition, types, and functions of an operating system; System Structures: Operating system services, system calls, system programs, and system structure; Process Management: Process concept, process scheduling, operations on processes, inter-process communication; CPU Scheduling: Scheduling criteria, scheduling algorithms (FCFS, SJF, Priority, Round Robin, Multilevel Queue Scheduling).*	*01.08.2025 to 31.08.2025*
2.	*Memory Management: Memory Hierarchy, Types of memory, memory allocation techniques; Paging and Segmentation: Basic concepts, paging, segmentation, segmentation with paging; Virtual Memory: Demand paging, page replacement algorithms, allocation of frames, thrashing; File Systems: File concepts, access methods, directory and disk structure, file system mounting, file sharing, protection.*	*01.09.2025 to 30.09.2025*
3.	*Introduction to Linux: History, features, architecture of Linux; Linux File System: File and directory structure, file permissions, standard file types; Basic Commands: File and directory operations (ls, cp, mv, rm, mkdir), text processing (cat, grep, sort), system status (ps, top, df, du); Shell Scripting: Introduction to shell, shell variables, control structures (if, case, while, for), writing simple shell scripts.*	*01.10.2025 to 31.10.2025*
4.	*Process Management in Linux: Managing processes (ps, top, kill, nice), job scheduling (cron, at); User and Group Management: Creating and managing users and groups, file permissions, changing ownership (chown, chgrp); Networking in Linux: Basic network commands (ifconfig, ping, netstat, ssh), configuring network interfaces; System Administration: Package management (installing and removing software using rpm, dpkg, apt-get), backup and restore, logging; Security: Basic security concepts, user authentication.*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (ODD SEMESTER)

SESSION: 2025-26

Name of the Teacher: Seema Rani ***Department: Computer Science***

Subject/Course: Logical Organization of Computer(B23-CC-C1) Lab ***Programme: Bachelor of Physical Science***

Semester: 1st

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*1. Program* *2. program* *3 .program* *4 .program*	*01.08.2025 to 31.08.2025*
2.	*5. program* *6. program* *7. program* *8. program*	*01.09.2025 to 30.09.2025*
3.	*9. Program* *10. Program* *11. program* *12. Program*	*01.10.2025 to 31.10.2025*
4.	*13. Program* *14. Program* *15. Program*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (ODD SEMESTER)

SESSION: 2025-26

Name of the Teacher: Seema Rani ***Department: Computer Science***

Subject/Course: Basics of Computer Science (B23-CC-M1) Lab ***Programme: Bachelor of Physical Science***

Semester: 1st

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*1. Program* *2. program* *3 .program* *4 .program*	*01.08.2025 to 31.08.2025*
2.	*5. program* *6. program* *7. program* *8. program*	*01.09.2025 to 30.09.2025*
3.	*9. Program* *10. Program* *11. program* *12. Program*	*01.10.2025 to 31.10.2025*
4.	*13. Program* *14. Program* *15. Program*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Suman *Department: Computer Science*

Subject/Course: FUNDAMENTALS OF COMPUTER SCIENCE

Programme: BA (MDC)

Semester: Ist

Unit	*Name of Topic/Contents*	*Tentative Dates/Days/Month*
1.	Computer Fundamentals: Evolution of Computers through generations, Characteristics of Computers, Strengths and Limitations of Computers, Classification of Computers, Functional Components of a Computer System, Applications of computers in Various Fields.Types of Software: System software, Application software, Utility Software, Shareware, Freeware, Firmware, Free Software.	*August*
3.	Memory Systems: Concept of bit, byte, word, nibble, storage locations and addresses, measuring units of storage capacity, access time, concept of memory hierarchy. Primary Memory - RAM, ROM, PROM, EPROM. Secondary Memory - Types of storage devices, Magnetic Tape, Hard Disk, Optical Disk, Flash Memory.	*September Assign ment &(Test)*
4.	I/O Devices: I/O Ports of a Desk Top Computer, Device Controller, Device Driver. Input Devices: classification and use, keyboard, pointing devices - mouse, touch pad and track ball, joystick, magnetic stripes, scanner, digital camera, and Microphone. Output Devices: speaker, monitor, printers: classification, laser, ink jet, dot matrix. Plotter.	*October (PPT Presentation)*
5.	Introduction to Operating System: Definition, Functions, Features of Operating System, Icon, Folder, File, Start Button, Task Bar, Status Buttons, Folders, Shortcuts, Recycle Bin, Desktop, My Computer, My Documents, Windows Explorer, Control Panel. The Internet: Introduction to networks and internet, history, Internet, Intranet & Extranet, Working of Internet, Modes of Connecting to Internet. Electronic Mail: Introduction, advantages and disadvantages, User Ids, Passwords, e-mail addresses, message components, message composition, mailer features. Browsers and search engines.	*November*
6.	Threats: Physical & non-physical threats, Virus, Worm, Trojan, Adware, Cookies, Phishing, Hacking, Cracking. Computer Security Fundamentals: Confidentiality, Integrity, Authentication, Non-Repudiation, Security Mechanisms, Security Awareness, Security Policy, anti-virus software & Firewalls, backup & recovery.	*December*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: ***Suman*** ***Department: Computer Science***

Subject/Course: **Foundations of Computer Science** ***Programme: BCA I***

Semester: Ist

Unit	***Name of Topic/Contents***	***Tentative Dates/Days/Month***
1.	Computer Fundamentals: Evolution of Computers through generations, Characteristics of Computers, Strengths and Limitations of Computers, Classification of Computers, Functional Components of a Computer System, Applications of computers in Various Fields.Types of Software: System software, Application software, Utility Software, Shareware, Freeware, Firmware, Free Software.	*August*
2.	Memory Systems: Concept of bit, byte, word, nibble, storage locations and addresses, measuring units of storage capacity, access time, concept of memory hierarchy. Primary Memory - RAM, ROM, PROM, EPROM. Secondary Memory - Types of storage devices, Magnetic Tape, Hard Disk, Optical Disk, Flash Memory. I/O Devices: I/O Ports of a Desk Top Computer, Device Controller, Device Driver. Input Devices: classification and use, keyboard, pointing devices - mouse, touch pad and track ball, joystick, magnetic stripes, scanner, digital camera, and Microphone	*September* *(Assignment)*
3.	Output Devices: speaker, monitor, printers: classification, laser, ink jet, dot matrix. Plotter.Introduction to Operating System: Definition, Functions, Features of Operating System, Icon, Folder, File, Start Button, Task Bar, Status Buttons, Folders, Shortcuts, Recycle Bin, Desktop, My Computer, My Documents, Windows Explorer, Control Panel.	*October* *(Test)*
4.	The Internet: Introduction to networks and internet, history, Internet, Intranet & Extranet, Working of Internet, Modes of Connecting to Internet. Electronic Mail: Introduction, advantages and disadvantages, User Ids, Passwords, e-mail addresses, message components, message composition, mailer features. Browsers and search engines.	*November*
5.	Threats: Physical & non-physical threats, Virus, Worm, Trojan, Spyware, Keylogers, Rootkits, Adware, Cookies, Phishing, Hacking, Cracking. Computer Security Fundamentals: Confidentiality, Integrity, Authentication, Non-Repudiation, Security Mechanisms, Security Awareness, Security Policy, anti-virus software & Firewalls, backup & recovery.	*December*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Suman *Department: Computer Science*

Subject/Course:-MDC (LAB) *Programme: B.A.*

Semester: Ist

Unit	*Name of Topic/Contents*	*Tentative Dates/Days/Month*
1.	*Introduction to all parts of computer, give basic details of computer and its working, windows*	*August*
2	M.S.WORD	*SEPTEMBER*
3	M.S. EXCEL	*OCTOBER*
4	M.S. POWERPOINT	*NOVEMBER*
5	INTERNET	*DECEMBER*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Suman *Department: Computer Science*

Subject/Course: Foundations of Computer Science *(LAB)* *Programme: BCA I*

Semester: Ist

Unit	**Name of Topic/Contents**	**Tentative Dates/Days/Month**
1	*INTRODUCTION TO COMPUTER AND ITS PARTS, WINDOWS INTRODUCTION*	*AUGUST*
2	*M.S. WORD*	*SEPTEMBER*
3	*M.S. EXCEL*	*OCTOBER*
4	*M.S. POWERPOINT*	*NOVEMBER*
5	*INTERNET*	

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Ms. Pushpa Rani *Department: Computer- Science*

Subject/Course: Data Structures and Applications *Programme: PGDCA*

Semester1st sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Data Structure Definition, Data Type vs. Data Structure, Classification of Data Structures, Data Structure Operations, Applications of Data Structures. Algorithm Specifications: Performance Analysis and Measurement (Time and Space Analysis of Algorithms- Average, Best and Worst Case Analysis). Arrays: Introduction, Linear Arrays, Representation of Linear Array in Memory, Two Dimensional and Multidimensional Arrays, Sparse Matrix and its Representation.*	*Aug2025*
2.	*String Handling: Storage of Strings, Operations on Strings viz., Length, Concatenation, Substring, Insertion, Deletion, Replacement, Pattern Matching. Linked List: Introduction, Array vs. linked list, Representation of linked lists in Memory, Traversing a Linked List, Insertion, Deletion, Searching into a Linked list, Type of Linked List*	*Sep-2025*
3.	*Stack: Array Representation of Stack, Linked List Representation of Stack, Algorithms for Push and Pop, Application of Stack: Polish Notation, Postfix Evaluation Algorithms, Infix to Postfix Conversion, Infix to Prefix Conversion, Recursion. Introduction to Queues: Simple Queue, Double Ended Queue, Circular Queue, Priority Queue, Representation of Queues as Linked List and Array, Applications of Queue*	*Oct-Nov 2025*
4.	*Tree: Definitions and Concepts, Representation of Binary Tree, Binary Tree Traversal, Binary Search Trees Definition, Operations viz., searching, insertions and deletion, Searching and Sorting Techniques, Sorting Techniques: Bubble sort, Quick sort, Insertion Sort. Searching Techniques: Sequential Searching, Binary Searching.*	*Dec-2025*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Ms. Pushpa Rani *Department: Computer- Science*

Subject/Course: Database Technologies *Programme: BCA*

Semester 3rd sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Definition of Data Base and Data Base Management System, File Systems vs. DMBS, Characteristics of the Database Approach, Abstraction and Data Integration, Database users, Advantages and Disadvantages of DBMS.*	*Aug2025*
2.	*Database Systems Concepts and Architecture: Data Models, Schema and Instances, DBMS architecture, Data Independence, Database languages, DBMS functions. Entity Relationship Model: Purpose of ER Model, Entity Types, Entity Sets, Attributes, keys, Relationships, Roles and Structural Constraints, E-R Diagrams, Design of an ER Database Schema, Reduction of an ER schema to Tables.*	*Sep-2025*
3.	*Relational Data Model: Relational Model Concepts, Integrity Constraints over Relations, Relational Algebra – Basic Operations. Data Definition and Data Types, DDL, DML, and DCL, Views & Queries in SQL, Specifying Constraints & Indexes in SQL. Relational Database Management System: ORACLEBasic structure, Storage Management in ORACLE Database Structure & implementation in ORACLE, Programming ORACLE Applications. Conventional Data Models: Network and Hierarchical Data Models.*	*Oct-Nov 2025*
4.	*Functional Dependencies, Decomposition, Normal forms based on primary keys- (1NF, 2NF, 3NF, BCNF), Multi-valued Dependencies, 4 NF, Join dependencies, 5 NF. Transaction Processing Concepts: Introduction to Transaction, Properties of Transaction, Transaction Processing System Concepts, Schedules and Recoverability, Serializability of Schedules.*	*Dec-2025*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Ms. Pushpa Rani *Department: Computer- Science*

Subject/Course: Linux and shell Programming *Programme: BCA*

Semester 3rd sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Introduction to Linux: Linux distributions, Overview of Linux operating system, Linux architecture, Features of Linux, Accessing Linux system, Starting and shutting down system, Logging in and Logging out, Comparison of Linux with other operating systems.*	*Aug2025*
2.	*Commands in Linux: General-Purpose commands, File oriented commands, directory oriented commands, Communication-oriented commands, process oriented commands, etc. Regular expressions & Filters in Linux: Simple filters viz. more, wc, diff, sort, uniq, grep; Introducing regular expressions.*	*Sep-2025*
3.	*Linux file system: Linux files, inodes and structure and file system, file system components, standard file system, file system types. Processes in Linux: Starting and Stopping Processes, Initialization Processes, Mechanism of process creation, Job control in Linux using at, batch, cron & time..*	*Oct-Nov 2025*
4.	*Shell Programming: vi editor, shell variables, I/O in shell, control structures, loops, & executing shell in creating subprograms in Linux..*	*Dec-2025*

LESSON PLAN

SESSION: 2025-26

Name of the Teacher: Ms.Anjana Department: Computer Science

Subject/Course: Client-side Web Technology Programme: PGDCA

Semester: 1st

Unit	Name of Topic/Contents	Tentative Dates/Days
1	Basics of Front End Development: Overview of web development (Front End vs. Back End), Understanding the MERN stack and its components, Tools and environments (text editors, browsers, version control with Git); HTML (HyperText Markup Language): Structure of an HTML document, HTML elements and attributes, Forms and input types, Semantic HTML (header, footer, article, section, nav); CSS (Cascading Style Sheets): Basics of CSS (syntax, selectors, properties), CSS Box Model, Positioning and layout (float, flexbox, grid), Responsive design (media queries, mobile-first design)..	August
2	HTML elements and attributes, Forms and input types, Semantic HTML (header, footer, article, section, nav); CSS (Cascading Style Sheets): Basics of CSS (syntax, selectors, properties), CSS Box Model, Positioning and layout (float, flexbox, grid), Responsive design (media queries, mobile-first design)..	September
	Revision,Test,Assignment 1	
3	Introduction to React: Overview and advantages of React, Setting up a React development environment (using Create React App); JSX (JavaScript XML): Understanding JSX syntax, Embedding expressions in JS, JSX best practices; Components and Props: Functional and class components, Props and component communication, Prop types and default props.; State and Lifecycle: Understanding state in React, State management in class components, Lifecycle methods (componentDidMount, componentDidUpdate, componentWillUnmount); Event Handling	October

	and Forms: Handling events in React, Controlled vs. uncontrolled components, Form handling and validation	
4	Props and component communication, Prop types and default props.; State and Lifecycle: Understanding state in React, State management in class components, Lifecycle methods (componentDidMount, componentDidUpdate, componentWillUnmount); Event Handling and Forms: Handling events in React, Controlled vs. uncontrolled components, Form handling and validation React Router: Introduction to React Router, Setting up and configuring routes, Navigating between routes and passing parameters; State Management with Redux: Introduction to Redux, Setting up Redux with React.	November
	Assignment 2	
5	Actions, reducers, and store, Connecting Redux to React components; Advanced Hooks: Using built-in hooks (useEffect, useContext, useReducer), Creating custom hooks, Managing side effects with use effects.	December
	Revision	
Ms.Anjana Client-side Web Technology(***Praactical)***	***Name of Topic/Contents***	
	HTML/CSS Basics: 1) Creating a webpage structure with HTML. 2) Styling the webpage using CSS (inline, internal, and external styles).	
	Responsive Design: 1) Making the webpage responsive using media queries. 2) Using frameworks like Bootstrap for responsive design.	
	JavaScript Basics: 1) Adding interactivity with JavaScript (DOM manipulation, event handling). 2) Working with variables, loops, and conditions.	
	Frameworks and Libraries: 3) Using front-end frameworks React. 4) Utilizing libraries such as jQuery for DOM manipulation.	
	Introduction to React: 1) Create a simple React component that displays "Hello, World!" on the screen. 2) Use JSX syntax and explain its advantages over plain JavaScript.	
	State and Props: 1) Build a component that takes props and renders them. 2) Implement state in a component and update it based on user interaction (e.g., button click).	
	Basic Todo App: Develop a Todo application where users can add, delete, and mark tasks as completed. Use state to manage the list of tasks.	

	Using React Router: 1) Set up React Router in a project and create multiple pages (e.g., Home, About, Contact). 2) Implement navigation between these pages using Link and NavLink	
	Redux Integration: 1) Integrate Redux for state management in a React application. 2) Implement actions, reducers, and connect components to Redux store.	
	Responsive Design with React Router: 1) Build a responsive multi-page application using React Router. 2) Ensure layout adjustments for different screen sizes using CSS media queries or frameworks like Bootstrap.	
Ms.Anjana Software Engineering CourseCode B23-CAP-501 Semester V	***Name of Topic/Contents***	
Unit 1	Introduction: Program vs. Software, Software Engineering, Programming paradigms, Software Crisis – problem and causes, Phases in Software development:	August
	Requirement Analysis, Software Design, Coding, Testing, Maintenance, Software Development Process Models: Waterfall, Prototype, Evolutionary and Spiral models, Role of Metrics. Feasibility Study, Software Requirement Analysis and Specifications: SRS, Need for SRS, Characteristics of an SRS,	September
	Test and Assignment 1	
Unit 2	Feasibility Study, Software Requirement Analysis and Specifications: SRS, Need for SRS, Characteristics of an SRS, Components of an SRS, Problem Analysis, Information gathering tools, Requirement specification, validation and metrics. Structured Analysis and Tools: Data Flow Diagram, Data Dictionary, Decision table, Decision trees, Structured English, Entity Relationship diagrams.	*October*
Unit 3	Software Project Planning:Cost estimation: COCOMO model, Project scheduling, Staffing, and personnel planning, team structure, Software configuration management, Quality assurance plans, Project monitoring plans, Risk Management. Software Design:Design fundamentals, problem partitioning, and abstraction, design methodology, Cohesion & Coupling.	*November*
	Test and Assignment 2	
Unit 3	Software testing strategies: unit testing, integration testing, Validation testing, System testing, Alpha and Beta testing. Software Maintenance: Type of	*December*

	maintenance,Management of Maintenance, Maintenance Process, maintenance characteristics.	
Ms.Anjana Practicum: Software Engineering	***Name of Topic/Contents***	
	Development of 0 level DFD•	
	Development of 1level DFD	
	Development of 2 level DFD	
	data dictionary,	
	E-R diagram for Student Teacher Relationship	
	E-R diagram for Library Management, Draw ER Diagram for Hospital Management System.	
Ms.Anjana ***Web Technologies*** ***B23-CC-C5***	***Name of Topic/Contents***	
Unit 1	*introduction to Internet and World Wide Web (WWW); Evolution and History of World Wide Web, Web Pages and Contents, Web Clients, Web Servers, Web Browsers; Hypertext Transfer Protocol,.*	*August*
	Searching, Search Engines and Search Tools. Web Publishing: Hosting website; Internet Service Provider; Planning and designing website; Web Graphics Design, Steps For Developing website.	*september*
	Test and Assignment 1	
Unit 2	*Creating a Website and Introduction to Mark up Languages (HTML and DHTML), HTML Document Features & Fundamentals, HTML Elements, Creating Links; Head text styles; Text Structuring; Text color and Background; Formatting text; Page layouts, Images; Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts; Frame Creation and Layouts; Working with Forms and Menus; Working with Radio Buttons; Check Boxes; Text Boxes, HTML5.*	*October*
Unit 3	*Introduction to CSS (Cascading Style Sheets): Features, Core Syntax, Types, Style Sheets and HTML, Style Rule Structure, Inheritance, Text Properties, CSS Box Model, Normal Flow Box Layout, Positioning and other visual CSS2 properties; Features of CSS3.*	*November*
	Test and Assignment 2	
Unit 4	*The Nature of JavaScript: Evolution of Scripting Languages, JavaScript-Definition, Programming for Non-Programmers, Introduction to Client-Side Programming, Including HTML Documents with JavaScript. Static and Dynamic web pages.*	*December*

Ms.Anjana ***Web Technologies*** ***Practical***	***Name of Topic/Contents***	
	Program 1	
	Program 2	
	Program 3	
	Program 4	
	Program 5	
	Program 6	
	Program 7	
	Program 8	
	Program 9	
	Program 10	
	Program 11	
	Program 12	
	Program 13	
	Program 14	
	Program 15	

TENTATIVE LESSON PLAN (ODD SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Manoj Chahal *Department: Computer Science*

Subject/Course: Problem Solving Through C (BCA23-CC101) Sec A *Programme: BCA*

Semester: 1st Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Overview of C: History, Importance, Structure of C Program, Character Set, Constants and Variables, Identifiers and Keywords, Data Types, Assignment Statement, Symbolic Constant.* *Input/output: Formatted I/O Function-, Input Functions viz. scanf(), getch(), getche(), getchar(), gets(),* *output functions viz. printf(), putch(), putchar(), puts().*	*01.08.2025 to 31.08.2025*
2.	*Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators Operator Hierarchy;. Arithmetic Expressions, Evaluation of Arithmetic Expression,* *Type Casting and Conversion. Decision making with if statement, if-else statement, nested if statement, else-if ladder, switch and break statement, goto statement, Looping Statements: for, while, and do-while loop, jumps in loops.*	*01.09.2025 to 30.09.2025*
3.	*Arrays: One Dimensional arrays - Declaration, Initialization and Memory representation; Two Dimensional arrays -Declaration, Initialization and Memory representation.* *Functions: definition, prototype, function call, passing arguments to a function: call by value; call by reference, recursive functions.* *Strings: Declaration and Initialization, String I/O, Array of Strings, String Manipulation Functions: String Length, Copy, Compare, Concatenate etc., Search for a Substring.*	*01.10.2025 to 31.10.2025*

4.	*Pointers in C: Declaring and initializing pointers, accessing address and value of variables using pointers; Pointers and Arrays.* *User defined data types: Structures - Definition, Advantages of Structure, declaring structure variables, accessing structure members, Structure members initialization, Array of Structures; Unions - Union definition; difference between Structure and Union.*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (ODD SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Manoj Chahal *Department: Computer Science*

Subject/Course: Back-end Development (B23-CAP-502) *Programme: BCA*

Semester:5th Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Introduction to back-end Development: Overview of backend, Client-server architecture, Introduction to web servers and database* *Programming Languages and Tools: Introduction to server-side languages (e.g., Node.js, or PHP), Syntax and semantics of chosen server-side language*	*01.08.2025 to 31.08.2025*
2.	*Programming Languages: Version control with Git, Introduction to IDEs (Integrated Development Environments) of chosen language, Writing and executing basic server-side scripts* *Performance Optimization and Security: Caching strategies, Query optimization*	*01.09.2025 to 30.09.2025*
3.	*Database Management: Introduction to databases and DBMS (SQL and NoSQL), Designing a database schema, CRUD operations (Create, Read, Update, Delete), Connecting applications to a database*	*01.10.2025 to 31.10.2025*
4.	*Server-Side Frameworks: Overview of popular server-side frameworks (e.g., Express.js, or Laravel), Building a simple application using a framework.* *API Development: RESTful API concepts, Designing and documenting APIs, Authentication and authorization basics* *Web security best practices (SQL injection, XSS, CSRF)*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (ODD SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Manoj Chahal *Department: Computer Science*

Subject/Course: Back-end Development (B23-CAP-502) LAB *Programme: BCA*

Semester:5th Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Introduction to Backend Technologies: Objective: Familiarize students with backend technologies and tools.* *1. Setup development environment (e.g., IDE, Git).* *2. Create a simple "Hello World" backend application in Node.js.* *Working with Databases (SQL): Objective: Learn basic SQL operations and database interactions.* *3. Set up MySQL/PostgreSQL database.* *4 Perform CRUD operations using SQL queries (Create, Read, Update, Delete).*	*01.08.2025 to 31.08.2025*
2.	*Working with NoSQL Databases: Objective: Introduce students to NoSQL databases.* *5 Set up MongoDB/Redis database.* *6 Implement CRUD operations using NoSQL commands.* *Building RESTful APIs: Objective: Develop skills in designing and implementing RESTful APIs.* *7 Create endpoints for CRUD operations.* *8 Implement basic authentication and authorization.*	*01.09.2025 to 30.09.2025*
3.	*Web Frameworks (Choose one: Node.js or Express.js): Objective: Gain practical experience with backend frameworks.* *9 Setup Node.js/Express.js project.* *10 Implement a simple web application (Express.js or Node.js).* *Integrating Frontend and Backend: Objective: Understand frontend-backend interaction.* *11 Create API endpoints to serve JSON data.* *12 Develop a frontend (HTML/CSS/JavaScript) to consume backend API.*	*01.10.2025 to 31.10.2025*
4.	*Data Validation and Error Handling: Objective: Learn techniques for validating input data and handling errors.*	

	13 Implement input validation using middleware (Express.js) or Node.js forms. *14 Handle errors and exceptions gracefully.* *Security Best Practices: Objective: Implement security measures in backend applications.* *15 Implement HTTPS/SSL configuration.* *16 Prevent common security vulnerabilities (e.g., SQL injection, XSS).*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (ODD SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Manoj Chahal *Department: Computer Science*

Subject/Course: Problem Solving Through C (BCA23-CC101)LAB Sec A *Programme: BCA*

Semester: 1st Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*1. Program* *2. program* *3 .program* *4 .program*	*01.08.2025 to 31.08.2025*
2.	*5. program* *6. program* *7. program* *8. program*	*01.09.2025 to 30.09.2025*
3.	*9. Program* *10. Program* *11. program* *12. Program*	*01.10.2025 to 31.10.2025*
4.	*13. Program* *14. Program* *15. Program*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (ODD SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Manoj Chahal *Department: Computer Science*

Subject/Course: Java OOP Foundations (BCA23-CC301)LAB *Programme: BCA*

Semester: 3rd Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*1. Program* *2. program* *3 .program* *4 .program*	*01.08.2025 to 31.08.2025*
2.	*5. program* *6. program* *7. program* *8. program*	*01.09.2025 to 30.09.2025*
3.	*9. Program* *10. Program* *11. program* *12. Program*	*01.10.2025 to 31.10.2025*
4.	*13. Program* *14. Program* *15. Program*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: kamlesh *Department: Computer Science*

Subject/Course: Basic IT Tools

Programme: BA 2nd (MDC)

Semester: 3rd

Unit	*Name of Topic/Contents*	*Tentative Dates/Days/Month*
1.	Introduction to Computer: Computer and Latest IT gadgets, Evolution of Computers & its applications, Basics of Hardware and Software, Application Software, Systems Software, Utility Software. Central Processing Unit, Input devices, Output devices, Computer Memory & storage, Mobile Apps.	*August*
2.	Application systems, Hotel of information Management, Technology in Railways, Airlines, Banking, Insurance, Inventory Control, Financial Education, Video games, Mobile phones, Information kiosks, special effects i	*September Assignment &(Test)*
3	Operating System: An overview of different versions of Windows, Basic Windows elements, File management through Windows. Using essential accessories: System tools, Disk clean-up, Disk defragmenter, Calculator, Notepad, Paint, and WordPad, Application Management: Installing, uninstalling, running applications, Windows control panel- keyboard,mouse, file explorer, font,region, network settings	*October (PPT Presentation)*
4	Word processing concepts: saving, closing, Opening an existing document, Editing text, Finding and replacing text, printing documents, creating and Printing Merged Documents, Character and Paragraph Handling Formatting, Graphics, Page Design and Layout. Editing and Profiling Tools: Checking and correcting spellings.	*November*
5.	Revision	*December*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: ***kamlesh*** ***Department: Computer Science***

Subject/Course: **Data Management** ***Programme: BA***

Semester: 3rd

Unit	***Name of Topic/Contents***	***Tentative Dates/Days/Month***
1.	Introduction to Data: Definition, features of data, feature of good data management, usage of data, types of data, applications of data, difference between various data, data management in context cost and value benefits● traceability and audit ease ofaccess and use real world applications.	*August*
2.	Data Life Cycle: Creating data, Sources of data, Ingestion & Storage of data, Structure, attribution and relationships, Versioning, Sharing, Exchange & Re-Use, Archiving of data, Standards of data Management	*September* *(Assignment)*
3.	Meta data and Vocabularies: Definition of metadata, Discovery of metadata, Profiles of Metadata ,Master Data Register (MDR) and its usage, Creating metadata, MEDIN, Controlled vocabulary,	*October* *(Test)*
4.	Data Quality and Publishing : Definition, Features of data quality, Importance of data quality, Methods of assessing the data quality, Process of publishing data, Delivery of products and services, Cartography,	*November*
5.	Revision and practics	*December*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: kamlesh *Department: Computer Science*

Subject/Course:-MDC (LAB) *Programme: B.A.*

Semester: 3rd

Unit	*Name of Topic/Contents*	*Tentative Dates/Days/Month*
1.	*Introduction to all parts of computer, give basic details of computer and its working, windows*	*August*
2	M.S.WORD	*SEPTEMBER*
3	M.S. EXCEL	*OCTOBER*
4	M.S. POWERPOINT	*NOVEMBER*
5	INTERNET	*DECEMBER*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: kamlesh *Department: Computer Science*

Subject/Course Linux and Shell Programming (LAB) *Programme: BCA 2nd*

Semester: 3rd

Unit	**Name of Topic/Contents**	**Tentative Dates/Days/Month**
1	*INTRODUCTION TO COMPUTER AND ITS PARTS, WINDOWS INTRODUCTION*	*AUGUST*
2	*Introduction to Linux: Linux distributions, Overview of Linux operating system, Linux architecture, Features of Linux, Accessing Linux system, Starting and shutting down system, Logging in and*	*SEPTEMBER*
3	*Commands in Linux: General-Purpose commands, File oriented commands, directory oriented commands, Communication-oriented commands, process oriented commands, etc. Regular expressions & Filters in Linux: Simple filters viz. more, wc, diff, sort, uniq, grep; Introducing regular*	*OCTOBER*
4	*Linux file system: Linux files, inodes and structure and file system, file system components, standard file system, file system types. Processes in Linux: Starting and Stopping Processes, Initialization Processes, Mechanism of process creation, Job control in Linux using at, batch, cron & time.*	*NOVEMBER*
5	*Shell Programming: vi editor, shell variables, I/O in shell, control structures, loops, subprograms, creating & executing shell scripts in Linux.*	*December*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: ***kamlesh*** ***Department: Comp Sci***

Subject/Course: **Data Management(LAB)** ***Programme: BA***
Semester: 3rd

Unit	***Name of Topic/Contents***	***Tentative Dates/Days/Month***
1.	Introduction to Data: Definition, features of data, feature of good data management, usage of data, types of data, applications of data, difference between various data, data management in context cost and value benefits● traceability and audit ease of access and use real world applications.	*August*
2.	Data Life Cycle: Creating data, Sources of data, Ingestion & Storage of data, Structure, attribution and relationships, Versioning, Sharing, Exchange & Re-Use, Archiving of data, Standards of data Management	*September* *(Assignment)*
3.	Meta data and Vocabularies: Definition of metadata, Discovery of metadata, Profiles of Metadata ,Master Data Register (MDR) and its usage, Creating metadata, MEDIN, Controlled vocabulary,	*October* *(Test)*
4.	Data Quality and Publishing : Definition, Features of data quality, Importance of data quality, Methods of assessing the data quality, Process of publishing data, Delivery of products and services, Cartography,	*November*
5.	Revision and practices	*December*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Poonam (Extension Lecturer) *Department: Computer Sc.*

Subject/Course: Logical Organization of Computer(BCA23-CC103) *Programme: BCA 1st Year*

Semester: 1st

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Number Systems: Binary, Octal, Hexadecimal etc. Conversions from one number system to another, BCD Number System. BCD Codes: Natural Binary Code, Weighted Code, Self-Complimenting Code, Cyclic Code. Error Detecting and Correcting Codes. Character representations: ASCII, EBCDIC and Unicode. Number Representations: Integer numbers - sign-magnitude, 1's & 2's complement representation. Real Numbers normalized floating point representations.*	*01.08.2025 to 31.08.2025*
2.	*Binary Arithmetic: Binary Addition, Binary Subtraction, Binary Multiplication, Binary Division using 1's and 2's Compliment representations, Addition and subtraction with BCD representations. Boolean Algebra: Boolean Algebra Postulates, basic Boolean Theorems, Boolean Expressions, Boolean Functions, Truth Tables, Canonical Representation of Boolean Expressions: SOP and POS, Simplification of Boolean Expressions using Boolean Postulates & Theorems, Kaurnaugh-Maps (upto four variables), Handling Don't Care conditions*	*01.09.2025 to 30.09.2025*
3.	*Logic Gates: Basic Logic Gates – AND, OR, NOT, Universal Gates – NAND, NOR, Other Gates – XOR, XNOR etc. Their symbols, truth tables and Boolean expressions. Combinational Circuits: Design Procedures, Half Adder, Full Adder, Half Subtractor, Full Subtracor, Multiplexers, Demultiplexers, Decoder, Encoder, Comparators, Code Converters.*	*01.10.2025 to 31.10.2025*
4.	*Sequential Circuits: Basic Flip- Flops and their working. Synchronous and Asynchronous Flip –Flops, Triggering of Flip-Flops, Clocked RS, D Type, JK, T type and Master-Slave Flip-Flops. State Table, State Diagram and State Equations.Flip-flops characteristics & Excitation Tables.Sequential Circuits: Designing registers – Serial-In Serial-Out (SISO), Serial-In Parallel-Out (SIPO), Parallel-In Serial-Out (PISO) Parallel-In Parallel-Out (PIPO) and shift registers.*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Poonam (Extension Lecturer) *Department: Computer Sc.*

Subject/Course: Foundations of Computer Science (BCA23-CC10) *Programme: BCA 1st Year*

Semester: 1st

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Computer Fundamentals: Evolution of Computers through generations, Characteristics of Computers, Strengths and Limitations of Computers, Classification of Computers, Functional Components of a Computer System, Applications of computers in Various Fields. Types of Software: System software, Application software, Utility Software, Shareware, Freeware, Firmware, Free Software. Memory Systems: Concept of bit, byte, word, nibble, storage locations and addresses, measuring units of storage capacity, access time, concept of memory hierarchy. Primary Memory - RAM, ROM, PROM, EPROM. Secondary Memory - Types of storage devices, Magnetic Tape, Hard Disk, Optical Disk, Flash Memory*	*01.08.2025 to 31.08.2025*
2.	*I/O Devices: I/O Ports of a Desk Top Computer, Device Controller, Device Driver. Input Devices: classification and use, keyboard, pointing devices - mouse, touch pad and track ball, joystick, magnetic stripes, scanner, digital camera, and microphone Output Devices: speaker, monitor, printers: classification, laser, ink jet, dotmatrix. Plotter. Introduction to Operating System: Definition, Functions, Features of Operating System, Icon, Folder, File, Start Button, Task Bar, Status Buttons, Folders, Shortcuts, Recycle Bin, Desktop, My Computer, My Documents, Windows Explorer, Control Panel.*	*01.09.2025 to 30.09.2025*
3.	*The Internet: Introduction to networks and internet, history, Internet, Intranet & Extranet, Working of Internet, Modes of Connecting to Internet. Electronic Mail: Introduction, advantages and disadvantages, User Ids, Passwords, e-mail addresses, message components, message composition, mailer features. Browsers and search engines.*	*01.10.2025 to 31.10.2025*
4.	*Threats: Physical & non-physical threats, Virus, Worm, Trojan, Spyware, Keylogers, Rootkits, Adware, Cookies, Phishing, Hacking, Cracking. Computer Security Fundamentals: Confidentiality, Integrity, Authentication, Non-Repudiation, Security Mechanisms, Security Awareness, Security Policy, anti-virus software & Firewalls, backup & recovery.*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (ODD SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Poonam (Extension Lecturer) *Department: Computer Sc.*

Subject/Course: Logical Organization of Computer(BCA23-CC103) *Programme: BCA 1st Year*

Semester: 1st

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
5.	*1. Program* *2. program* *3 .program* *4 .program*	*01.08.2025 to 31.08.2025*
6.	*5. program* *6. program* *7. program* *8. program*	*01.09.2025 to 30.09.2025*
7.	*9. Program* *10. Program* *11. program* *12. Program*	*01.10.2025 to 31.10.2025*
8.	*13. Program* *14. Program* *15. Program*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (ODD SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Poonam (Extension Lecturer) *Department: Computer Sc.*

Subject/Course: Foundations of Computer Science (BCA23-CC10) *Programme: BCA 1st Year*

Semester: 1st

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*1. Program* *2. program* *3 .program* *4 .program*	*01.08.2025 to 31.08.2025*
2.	*5. program* *6. program* *7. program* *8. program*	*01.09.2025 to 30.09.2025*
3.	*9. Program* *10. Program* *11. program* *12. Program*	*01.10.2025 to 31.10.2025*
4.	*13. Program* *14. Program* *15. Program*	*01.11.2025 to 01.12.2025*

TENTATIVE LESSON PLAN (ODD SEMESTER)

SESSION: 2025-26

Name of the Teacher: Sharmila Devi ***Department: Computer Science*** ***Subject/Course: Object Oriented Modelling with UML*** ***Programme: PGDCA***

Semester: 1st Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1	Introduction: Object-Orientation, Modeling, Class Modeling: Object, Class, Value & Attributes, Operation & Method, Link & Association,, Qualified association, Multiplicity, Association end name, Ordering, Generalization & Inheritance	*August 2025*
2	Class Modeling: Graphical Structure of Object & Class, Association, Aggregation, Abstract Class, Multiple Inheritance, Metadata. State Modeling: Events, States, Transition & Conditions, State Diagram, State Diagram. State Modeling: Nested State Diagram, Nested States.	*September 2025*
3	System Design: Overview, Estimating Performance, Making a reuse plan, Breaking a system into subsystems, Identifying Concurrency, Allocation of subsystem, Management of data storage, Handling global resources.	*October 2025*
4	Interaction Modeling: Use Case Models: Actors, Use case, Use case diagram, Guidelines for use case diagram. Sequence Model: Scenarios, Sequence Diagrams, Guidelines for Sequence model. Activity Model: Activities, Branches, Initiation & Termination, Concurrent Activities	*November 2025*

TENTATIVE LESSON PLAN (ODD SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Sharmila Devi ***Department: Computer Science***

Subject/Course: Problem Solving Through C (BCA23-CC101) Sec B ***Programme: BCA***

Semester: 1st Sem

Unit	***Name of Topic/Contents***	***Tentative Dates/Days***
1.	Overview of C: History, Importance, Structure of C Program, Character Set, Constants and Variables, Identifiers and Keywords, Data Types, Assignment Statement, Symbolic Constant. Input/output: Formatted I/O Function-, Input Functions viz. scanf(), getch(), getche(), getchar(), gets(), output functions viz. printf(), putch(), putchar(), puts().	*August 2025*
2.	Operators & Expression: Arithmetic, Relational, Logical, Bitwise, Unary, Assignment, Conditional Operators and Special Operators Operator Hierarchy;. Arithmetic Expressions, Evaluation of Arithmetic Expression, Type Casting and Conversion. Decision making with if statement, if-else statement, nested if statement, else-if ladder, switch and break statement, goto statement, Looping Statements: for, while, and do-while loop, jumps in loops.	*September 2025*
3.	Arrays: One Dimensional arrays - Declaration, Initialization and Memory representation; Two Dimensional arrays -Declaration, Initialization and Memory representation. Functions: definition, prototype, function call, passing arguments to a function: call by value; call by reference, recursive functions. Strings: Declaration and Initialization, String I/O, Array of Strings, String Manipulation Functions: String Length, Copy, Compare, Concatenate etc., Search for a Substring.	*October 2025*
4.	Pointers in C: Declaring and initializing pointers, accessing address and value of variables using pointers; Pointers and Arrays. User defined data types: Structures - Definition, Advantages of Structure, declaring structure variables, accessing structure members, Structure members initialization, Array of Structures; Unions - Union definition; difference between Structure and Union.	*November 2025*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Sharmila Devi ***Department: Computer Science***

Subject/Course: Object Oriented Modelling with UML(LAB) ***Programme: PGDCA***

Semester: 1ST Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*Program 1* *Program 2* *Program 3* *Program 4*	*August 2025*
2.	*Program 5* *Program 6* *Program 7* *Program 8*	*September 2025*
3.	*Program 9* *Program 10* *Program 11* *Program 12*	*October 2025*
4.	*Program 13* *Program 14* *Program 15* *Program16*	*November 2025*

TENTATIVE LESSON PLAN (ODD SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Sharmila Devi ***Department: Computer Science***

Subject/Course: Problem Solving Through C (BCA23-CC101) LAB Sec B ***Programme: BCA***

Semester: 1st Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	*1. Program* *2. program* *3 .program* *4 .program*	*August 2025*
2.	*5. program* *6. program* *7. program* *8. program*	*September 2025*
3.	*9. Program* *10. Program* *11. program* *12. Program*	*October 2025*
4.	*13. Program* *14. Program* *15. Program*	*November 2025*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Jyoti Goel *Department: Computer Science*

Subject/Course: Discrete Structures in Computer Science *Programme: BCA*

Semester: 1st Sem Section A

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
1.	An introduction to matrices and their types, Operations on matrices, Symmetric and skew-symmetric matrices, Minors, Co-factors. Determinant of a square matrix, Adjoint and inverse of a square matrix,	*1-08-25 to 31-08-25*
	Introduction to counting: Basic counting techniques inclusion and exclusion, pigeon-hole principle, permutation, combination.	*1-09-25 to 30-09-25*
	Trees - General trees, directed trees, ordered trees, rooted trees, Binary tree, Infix, prefix & postfix representation of trees	1-10-25 to 31-10-25
	Graphs: Basic terminology, Subgraph, Directed & undirected graph, Labeled graphs, Weighted graphs, Representation of graphs.	*01-11-25 to 1-12-25*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Jyoti Goel *Department: Computer Science*

Subject/Course: Basic Concepts of UML *Programme: BCA*

Semester: 3rd Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
	Introduction: Object-Orientation, Modeling, Class Modeling: Object, Class, Value & Attributes, Operation & Method, Link & Association,, Qualified association, Multiplicity, Association end name, Ordering, Generalization & Inheritance,	*1-08-25 to 31-08-25*
	Class Modeling: Graphical Structure of Object & Class, Association, Aggregation, Abstract Class, Multiple Inheritance, Metadata. State Modeling: Events, States, Transition & Conditions, State Diagram, State Diagram. State Modeling: Nested State Diagram, Nested States.	*1-09-25 to 30-09-25*
	System Design: Overview, Estimating Performance, Making a reuse plan, Breaking a system into subsystems, Identifying Concurrency, Allocation of subsystem, Management of data storage, Handling global resources.	1-10-25 to 31-10-25
	Interaction Modeling: Use Case Models: Actors, Use case, Use case diagram, Guidelines for use case diagram. Sequence Model: Scenarios, Sequence Diagrams, Guidelines for Sequence model. Activity Model: Activities, Branches, Initiation & Termination, Concurrent Activities	*01-11-25 to 1-12-25*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Jyoti Goel *Department: Computer Science*

Subject/Course: MDC IT Tools *Programme: BA*

Semester: 3rd Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
	Introduction to Internet & Computer: Concept, application and uses of Internet, Internet services, search engines, concepts of data, information, information system, effects of IT on business, Characteristics of Computers, Input, Output, Storage units, Central Processing Unit, Processor Speed, Cache Memory, RAM, ROM, Secondary Storage Devices: Hard Diska, Optical Disks CD-ROM, DVD, Input Devices Keyboard, Mouse, joystick, Scanner, web cam, Output Devices- Monitors, Printers Dot matrix, inkjet, laser, Computer Software- Relationship between Hardware and Software; System Software, Application Software, Compiler	*1-08-25 to 31-08-25*
	Operating System: An overview of different versions of Windows, Basic Windows elements, File management through Windows. Using essential accessories: System tools, Disk clean-up, Disk defragmenter, Calculator, Notepad, Paint, and WordPad, Application Management: Installing, uninstalling, running applications, Windows control panel- keyboard, mouse, file explorer, font, region, network settings	*1-09-25 to 30-09-25*
	Word processing concepts: saving, closing, Opening an existing document, Editing text, Finding and replacing text, printing documents, creating and Printing Merged Documents, Character and Paragraph Formatting, Page Design and Layout. Editing and Profiling Tools: Checking and correcting spellings. Handling Graphics, Creating tables.	1-10-25 to 31-10-25
	Application of information Technology in Railways, Airlines, Banking, Insurance, Inventory Control, Financial systems, Hotel Management, Education, Video games, Mobile phones, Information kiosks, special effects in Movies.	*01-11-25 to 1-12-25*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Jyoti Goel *Department: Computer Science*

Subject/Course: Basic Concepts of UML Practical *Programme: BCA*

Semester: 3rd Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
	Program 1 *Program 2* *Program 3* *Program 4*	*1-08-25 to* *31-08-25*
	Program 5 *Program 6* *Program 7* *Program 8*	*1-09-25 to* *30-09-25*
	Program 9 *Program 10* *Program 11* *Program 12*	1-10-25 to 31-10-25
	Program 13 *Program 14* *Program 15* *Program16*	*01-11-25 to* *1-12-25*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Jyoti Goel *Department: Computer Science*

Subject/Course: MDC IT Tools Practical *Programme: BA*

Semester: 3rd Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
	Program 1 *Program 2* *Program 3* *Program 4*	*1-08-25 to* *31-08-25*
	Program 5 *Program 6* *Program 7* *Program 8*	*1-09-25 to* *30-09-25*
	Program 9 *Program 10* *Program 11* *Program 12*	1-10-25 to 31-10-25
	Program 13 *Program 14* *Program 15* *Program16*	*01-11-25 to* *1-12-25*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Jyoti Goel *Department: Computer Science*

Subject/Course: Operating System with Linux *Programme: PGDCA*

Semester: 1st Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
	Program 1 *Program 2*	August

	Program 3 *Program 4*	
	Program 5 *Program 6* *Program 7* *Program 8*	*September*
	Program 9 *Program 10* *Program 11* *Program 12*	October
	Program 13 *Program 14* *Program 15* *Program16*	*November* *December*

TENTATIVE LESSON PLAN (SEMESTERS)

SESSION: 2025-26

Name of the Teacher: Jyoti Goel *Department: Computer Science*

Subject/Course: Advance It Skills Practical (SEC) *Programme: BA*

Semester: 3rd Sem

Unit	*Name of Topic/Contents*	*Tentative Dates/Days*
	Program 1 *Program 2* *Program 3* *Program 4*	*1-08-25 to* *31-08-25*
	Program 5 *Program 6* *Program 7* *Program 8*	*1-09-25 to* *30-09-25*
	Program 9 *Program 10* *Program 11* *Program 12*	1-10-25 to 31-10-25
	Program 13 *Program 14* *Program 15* *Program16*	*01-11-25 to* *1-12-25*