Govt. College, Safidon (Jind)-126112

Session: 2025-26 (Odd Semester)

Lesson Plan B.Sc. Comp. Sc.1st semester

Name of the Teacher: Ms. Kirti.   **Subject:** Basics of Computer Science

Sr. No.		Month	Topic
1		Aug	Introduction to Computers: Definition of Computers
2			History and Generations of Computers
3			Characteristics of computer
4			Fundamental Block diagram of Computer: CPU, Input & Output Unit.
5			Classification of Computers.
6		Sept	Software: Definition of Software
7			Types of Software-System software
8			Application software and Utility software.
9			Types of Computer Languages
10			Assemblers, Interpreters, Compiler.
11		Oct	Introduction to Operating Systems: Types of Operating System, Functions of Operating System
12			Windows: Introduction to Windows, Starting Windows, Desk Top, Task Bar
13			Opening and closing applications
14			icons- creating, renaming and removing. Date and Time setting
15			Working with files and folders-creating, deleting, opening, finding, copying, moving, and renaming
16		Nov	Networking: Concept, Basic Elements of a Communication System
17			Data Transmission Media, LAN, MAN, WAN
18			Introduction of Internet and WWW, Basic working of a Web Browser, Introduction to popular web browsers.

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Session: 2025-26 (Odd Semester)

Lesson Plan B.Sc. Comp. Sc.1st semester

Name of the Teacher: Ms. Kirti.   **Subject:** Logical Organization of Computer

Sr. No.		Month	Topic
1		Aug	Number Systems: Binary, Octal, Hexadecimal etc. Conversions from one number system to another, BCD Number
2			System. BCD Codes: Natural Binary Code, Weighted Code, Self-Complimenting Code, Cyclic Code.
3			Error Detecting and Correcting Codes. Character representations: ASCII, EBCDIC and Unicode.
4			Number Representations: Integer numbers - sign-magnitude, 1's & 2's complement representation
5			Real Numbers normalized floating point representations.
6		Sept	Binary Arithmetic: Binary Addition, Binary Subtraction, Binary Multiplication
7			Boolean Algebra: Boolean Algebra Postulates, basic Boolean Theorems, Boolean Expressions, Boolean Functions, Truth Tables
8			Canonical Representation of Boolean Expressions: SOP and POS, Simplification of Boolean Expressions using Boolean Postulates
9			Binary Division using 1's and 2's Compliment representations, Addition and subtraction with BCD representations.
10			Theorems, Kaurnaugh-Maps (upto four variables), Handling Don't Care conditions.
11		Oct	Logic Gates: Basic Logic Gates – AND, OR, NOT, Universal Gates – NAND, NOR, Other Gates – XOR, XNOR etc.
12			Their symbols, truth tables and Boolean expressions.
13			Combinational Circuits: Design Procedures, Half Adder, Full Adder, Half Subtractor, Full Subtracor, Multiplexers
14			Demultiplexers, Decoder, Encoder, Comparators, Code Converters.
15			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.
16		Nov	State Table, State Diagram and State Equations.Flip-flops characteristics
17			Excitation Tables,Sequential Circuits: Designing registers –Serial-In Serial-Out (SISO), Serial-In Parallel-Out (SIPO)
18			Parallel-In Serial-Out (PISO) Parallel-In Parallel-Out (PIPO) and shift registers.

Govt. College, Safidon (Jind)-126112

Session: 2025-26 (Odd Semester)

Lesson Plan B.Sc. Comp. Sc.IIIrd semester

Name of the Teacher: Ms. Kirti.   **Subject: Presentation Tools**

Sr. No.		Month	Topic
1		Aug	Creating New Presentations: Creating a Presentation, Choosing a Template/Theme,
2			Changing the Template/Theme, Adding Slides, Typing in Slide, Choosing a Slide Layout,
3			Changing the Slide Layout, Adding Text & Outline
4			Adding Text Bulleted, Numbered Lists Adding & Editing Text with Outline
5		Sept	View Outline, View Keystrokes.
6			Pictures & Graphics: Placing Pictures into Placeholders, Cropping Photos, Sizing Graphics
7			Fixing Stretched/Squished Photos, Photos Crop to Shape, Aspect Ratio Adjustment,
8			Photos & Graphics Picture Adjustments (converting to Black & White),
9		Oct	Picture Border, Layered Objects, Aligning Evenly, Distributing, Grouping
10			Reordering Layered Objects. SmartArt: Creating SmartArt, Adding Text Layouts
11			Adding Shapes, Shapes Resizing, Styles, Shapes
12			Converting Text into SmartArt, SmartArt with Picture, Adding Lines, Styling Shapes, Adding Text
13		Nov	Moving, Rotating Shapes, Connector Lines, Text Boxes. Tables: Creating Tables in PowerPoint, Typing in Table
14			Data Designing, Table Layout, Sizing Tables, Columns/Rows Alignment, Spacing In a Table
15			Adding or Removing Rows/Columns, Merging Cells, Copying & Pasting Charts
16			Importing Excel data to a Chart, Updating the Chart Data when the Excel File Changes.

Govt. College, Safidon (Jind)-126112
Session: 2024-25 (Odd Semester)

Lesson Plan PGDCA

Name of the Teacher: Ms. Kirti.   **Subject: Operating System with Linux**

Sr. No.		Month	Topic
1		Aug	Introduction to Operating Systems: Definition, types, and functions of an operating system
2			System Structures: Operating system services, system calls, system programs, and system structure; Process Management: Process concept, process scheduling.
3			operations on processes, inter-process communication; CPU Scheduling:
4			Scheduling criteria, scheduling algorithms (FCFS, SJF, Priority, Round Robin, Multilevel Queue Scheduling
5		Sept	Memory Management: Memory Hierarchy, Types of memory, memory allocation techniques; Paging and Segmentation: thrashing; File System
6			Basic concepts, paging, segmentation, segmentation with paging; Virtual Memory
7			Demand paging, page replacement algorithms, allocation of frames,
8			File concepts, access methods, directory and disk structure, file system mounting, file sharing, protection
9		Oct	Introduction to Linux: History, features, architecture of Linux; Linux File System: File and directory
10			file permissions, standard file types; Basic Commands: File and directory operations
11			text processing (cat, grep, sort), system status (ps, top, df, du)
12			Scripting: Introduction to shell, shell variables, control structures (if, case, while, for), writing simple shell scripts.
13		Nov	Process Management in Linux: Managing processes (ps, top, kill, nice), job scheduling (cron, at); User and Group Management System Administration:
14			Creating and managing users and groups, file permissions, changing ownership (chown, chgrp);
15			Networking in Linux: Basic network commands (ifconfig, ping, netstat, ssh), configuring network interfaces;
16			backup and restore, logging: Security: Basic security concepts, user authentication. Package management (installing and removing software using rpm, dpkg, apt-get)

Lesson Plan PGDCA

Name of the Teacher: Ms. Kirti.   **Subject: Operating System with Linux**

Sr. No.		Month	Topic
1		Aug	Modeling: Introduction: Object-Orientation, Object Oriented Methodology, Modeling, Class Object, Advanced State Modeling:
2			Class, Value & Attributes, Operation & Method, Link & Association, Association Classes, Qualified association,
3			Multiplicity, Association end name, Ordering, Bag &Sequences, Generalization & Inheritance, Uses of Generalization.
4			Nested State Diagram, Nested States, Signal Generalization, Concurrency.
5		Sept	Advance Class Modeling: Advanced Object & Class Concepts Multiple Inheritance
6			N-Array,association, Aggregation, Abstract Class
7			Metadata, State Modeling: Events, States, Transition & Conditions
8			State Diagram, State,Diagram Behavior.
9		Oct	System Design: Overview, Estimating Performance, Making a reuse plan, Management of data storage
10			Breaking a system into subsystems, Identifying Concurrency, Allocation of subsystem
11			Handling global resources, Choosing a software control strategy,
12			Handling boundary conditions, Setting trade-off priorities.
13		Nov	Use Case Models: Actors, Use case, Use case diagram, Guidelines for use case diagram.
14			Sequence Model: Scenarios, Sequence Diagrams, Guidelines for Sequence model.
15			Activity Model: Activities, Branches, Initiation & Termination, Concurrent Activities, Executable Activity Diagram, Guidelines for Activity diagram.
16			Case Study: Working of ATM with reference to implementation of basic structure, advanced structure, and functionality.