LESSON PLAN

Name:Dr. Bharti Saneja   **Designation:Assistant Professor (Computer Science)**
Class: BCA 5ᵗʰ sem   **Session: 2025-26**

Network Infrastructure and Data Communication Technologies
B23-CAP-503

22 July 2025 to 31 August 2025	Introduction to Data Communication and Computer Networks; Uses of Computer Networks; Types of Computer Networks and their Topologies; Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs,
01 September 2025 to 30 September 2025	Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways; Network Software: Network Design issues and Protocols; ConnectionOriented and Connectionless Services; OSI Reference Model; TCP/IP Model, Analog and Digital Communications Concepts: Analog and Digital data and signals; Bandwidth and Data Rate, Capacity, Baud Rate; Guided and Wireless Transmission Media; Communication Satellites; Switching and Multiplexing; Modems and modulation techniques, Data Link Layer Design issues; Error Detection and Correction methods;
01 October 2025 to 18 October 2025	Sliding Window Protocols: One-bit, Go Back N, and Selective Repeat; Media Access Control: ALOHA, Slotted ALOHA, CSMA, Collision free protocols; Introduction to LAN technologies: Ethernet, Switched Ethernet, Fast Ethernet, Gigabit Ethernet; Token Ring; Introduction to Wireless LANs and Bluetooth; Routing Algorithms: Flooding, Shortest Path Routing, Distance Vector Routing; Link State Routing, Hierarchical Routing;
19 October to 26 October 2025	**Diwali vacations**
27 October 2025 to 24 November 2025	Congestion Control; Traffic shaping; Choke packets; Load shedding; Application Layer: Introduction to DNS, E-Mail, and WWW services; Network Security Issues: Security attacks; Encryption methods; Firewalls; Digital Signatures;

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Office Automation
B23-VOC-132

22 July 2025 to 31 August 2025	Office Automation: Concept, benefits, various tools, Different automation software; Various appliances used in modern office.
01 September 2025 to 30 September 2025	MS-Office: Introduction to MS-Word; Paragraph formatting: Header and footer, tables, mail merge, spell check, file operations, cut, copy and paste, drag and drop, dynamic data, find and replace, auto correct; MS-Excel: Introduction work sheet, data types, usage of formula and calculation, different charts, functions, tables and formatting, macros. Power-Point: Introduction, creating a presentation, formatting a presentation, adding effects to the presentation, different views of slides, adding graphics, sounds and movies of a slide, effects, animation, multimedia in PPT; Slide show: Transition and timings: Diagrams: Clipart and picture; File management;
01 October 2025 to 18 October 2025	PowerPoint presentation on mobiles and desktops; Mobile apps for PPT: E-mail: Introduction, services, how it works, how to make E-mail ID, advantages and limitations of E-mail, receiving and sending E-mail messages.
19 October to 26 October 2025	**Diwali vacations**
27 October 2025 to 24 November 2025	Information Technology in Business Concept; Local area network: Media & topologies and wide area network; Electronic data processing; Multimedia technologies; Video conferencing: Cloud based storage of records.