

LESSON PLAN**Subject:** Computer Network**Semester:** Sixth**Branch:** ET & T

Unit Number	Name of the Topic	No of Class Required	Remarks
Unit 1.0 Basics of Computer Networking	1.1 Definitions and history of computer networks, Types of network LAN, MAN, WAN Wired and Wireless	1	
	1.2 Applications of various types of Computer Networks Standard Organizations and Protocols	1	
	1.3 Computer network services: Connection less and Connection oriented, Mode of Communication Simplex, Half duplex, Full Duplex	2	
	1.4 Line Configuration: Point to Point connection, Point to multi point Connection, Network Topology: Bus Topology, Ring Topology, Star Topology, Mesh Topology, Hybrid Topology	2	
	1.5 Quiz conduction, Doubt Class	1	
	1.6 Unit Test	1	
Unit 2.0 Reference Models for Network Implementation	2.1 TCP/IP model and its layers, main functions of each layer, feature, and protocol of each layer	3	
	2.2 OSI model, functions and features of each layer: Physical Layer, Data Link Layer, Network Layer, Transport Layer, Session Layer, Presentation Layer, Application Layer	4	
	2.3 Quiz conduction, Doubt Class	1	
	2.4 Unit Test	1	
Unit 3.0 Line Coding and Switching	3.1 Properties of Line Coding, Line coding schemes Unipolar: NRZ, RZ Polar: NRZ, RZ, Bi-phase Bipolar: AMI	3	
	3.2 Switching: Circuit Switching, Message Switching, Packet Switching	2	
	3.3 Modem and modem types, specifications, null modem, modem functions and installation	2	
	3.4 Multiplexing	1	
	3.5 Quiz conduction, Doubt Class	1	
	3.6 Unit Test	1	
Unit 4.0 Network Protocol and Applications	4.1 IP Protocol – IP v4, IP v6.	3	
	4.2 Addressing Schemes, Subnet and Supernet masking	2	
	4.3 DNS, FTP, HTTP, Email, SMTP, ICMP, TCP and UDP, ARP and RARP	2	
	4.6 Quiz conduction, Doubt Class	1	
	4.7 Unit Test	1	
Unit 5.0 Network Parameters and Devices	5.1 Network performance parameters: Band Width, Noise, Distortion Attenuation, Bit rate and Baud rate, latency, Throughput, Bandwidth-delay product, jitter	3	

	5.2 Network devices: Repeater, Hub, Switch, Bridge, Brouter, Router, Access Point, Gateway, RS-232, RJ45 and RJ11, NIC Bluetooth, Wi-Fi, IEEE 802.11	3	
	5.5 Quiz conduction, Doubt Class	1	
	5.6 Unit Test	1	
Total Class Required		44	

Parsons