

Lesson Plan

Name of the Faculty : Ravinder Kumar
Discipline : ECE.
Semester : 6th
Subject : ComputerNetwork
Lesson Plan Duration : From 20 Jan. 2025 to 02 May 2025

WorkLoad (Lecture/ Practical) per week (in hours): Lectures- 03, Practical- 04

Week	Theory		Practical
	Lecture day	Topic (including assignment/ test)	
1 st	1	Introduction about the subject	Introduction about the different practical cover in the subject
	2	Networks Basics	
	3	Concept of network-Models of network computing	
2 nd	4	Networking models - Peer-to-peer Network	1. Recognize the physical topology and cabling (coaxial, OFC, UTP, STP) of a network.
	5	Server Client Network- Network Services	
	6	Types ofb Computer Networks	
3 rd	7	Concept of switching - Switching Techniques	2. Recognition and use of various types of connectors RJ-45, RJ-11, BNC and SCST
	8	Switching Techniques	
	9	Network standards, OSI ReferenceModel	
4 th	10	OSI Physical layer	3. Making of cross cable and straight cable
	11	Data-link Layers & Network Layer concepts	
	12	Transport Layer concepts & OSI Session Layer	
5 th	13	OSI presentation Layer concepts & Application layer concepts	Revision
	14	1st sessional Exam	
	15	Introduction to TCP/IP	
6 th	16	Concept of addressing- physical addressing	4. Install and configure a network interface card in a workstation.
	17	IPV4 address space, Notations	
	18	Classful Addressing, Special Addressing	
7 th	19	Sub netting and super netting	5. Identify the IP address of a workstation and the class of the address and configure the IP Address on a workstation
	20	Loop back concept, Network Address Translation	
	21	IP packet Format- IPV4, IPV6	
8 th	22	Ethernet Specification and Standardization:	6. Managing user accounts in windows.
	23	10Mbps (Traditional Ethernet),100Mbps (Fast Ethernet), 1000Mbps(GigabitEthernet)	
	24	2nd sessional Exam	

9th	25	Network connectivity Devices: NICs, Hubs	Revision
	26	Switches, Routers	
	27	Repeaters, Modem, Gateway	
10th	28	Configuration of Routers and Switches	7. Sharing of Hardware resources in the network.
	29	NETWORK ADMINISTRATION: Network Security Principles	
	30	Cryptography, using secure protocols	
11th	31	Trouble Shooting Tools: PING, IPCONFIG, IFCONFIG, NETSTAT	8. Use of Netstat and its options.
	32	TRACEROOT, Wireshark, Nmap, TCPDUMP, ROUTEPRINT	
	33	TRACEROOT, Wireshark, Nmap, TCPDUMP, ROUTEPRINT	
12th	34	DHCP Server, Workgroup/Domain Networking	9. Connectivity troubleshooting using PING, IPCONFIG, IFCONFIG
	35	Introduction to wireless LAN IEEE 802.11	
	36	WiMax and Li-Fi	
13th	37	Wireless Security	10. Installation of Network Operating System (NOS)
	38	Introduction to bluetooth - architecture, application	
	39	Comparison between bluetooth and Wifi	
14th	40	Definition of Cloud Computing and advantages of Cloud Computing.	11. Demonstration of Cloud Computing in Labs or using Online Videos.
	41	Cloud Computing service model- SaaS, PaaS, IaaS.	
	42	Deployment model-Private Cloud, Public Cloud, Hybrid, Community cloud.	
15th	43	3rdsessionalExam	Revision
	44	Revision	
	45	Revision	