

Lesson Plan

Name of the Faculty : Mr. Trilok Chand Sharma
Discipline : Computer Engg.
Semester : 5th
Subject : **Computer Network**
Lesson Plan Duration : 15 weeks (from 22, July 2019 to Nov 2019)

Work Load (Lecture / Practical) per week (in hours): Lectures-03, Practical-03

Week	Theory		Practical	
	Lecture day	Topic (including assignment / test)	Practical Day	Topic
1 st	1 st	Networks Basics	1 st	Recognize the physical topology and cabling (coaxial, OFC, UTP, STP) of a network.
	2 nd	Concept of network ,Models of network computing		
	3 rd	Networking models		
2 nd	4 th	Peer-to –peer Network		Recognition and use of various types of connectors RJ-45, RJ-11,BNC and SCST
	5 th	Server Client Network Network Services		
	6 th	Concept of switching Switching Techniques		
3 rd	7 th	OSI Model	2 nd	Recognition of network devices (Switches, Hub, Routers of access points for Wi-Fi
	8 th	OSI Reference Model		
	9 th	OSI Reference Model		
4 th	10 th	OSI Reference Model		
	11 th	OSI Reference Model		
	12 th	OSI Reference Model		
5 th	13 th	OSI Reference Model		Making of cross cable and straight cable
	14 th	Function of various layers in OSI Reference Model		
	15 th	Function of various layers in OSI Reference Model		
6 th	16 th	- Function of various layers in OSI Reference Model	3 rd	Install and configure a network interface card in a workstation Identify the IP address of a workstation and the class of the address and configure the
	17 th	- Function of various layers in OSI Reference Model		
	18 th	- Function of various layers in OSI Reference Model		

Week	Theory		Practical	
	Lecture day	Topic (including assignment / test)	Practical Day	Topic
				IP Address on a workstation
7 th	19 th	Introduction to TCP/IP	4 th	Managing user accounts in windows and LINUX
	20 th	Concept of physical and logical addressing - IPV4 addressers- Address space, .		
	21 st	Notations, Classful Addressing, Classless Addressing, Network Address Translation		
8 th	22 nd	- Different classes of IP addressing, special IP address		
	23 rd	- Different classes of IP addressing, special IP address		
	24 th	- Sub netting and super netting		
9 th	25 th	- Sub netting and super netting	5 th	Study and Demonstration of sub netting of IP address Use of Netstat and its options. Connectivity troubleshooting using PING, IPCONFIG, IFCONFIG
	26 th	- Loop back concept - IPV4 and IPV6 packet Format		
	27 th	- Loop back concept - IPV4 and IPV6 packet Format		
10 th	28 th	Network Architecture		
	29 th	Ethernet Specification and Standardization:		
	30 th	10 Mbps (Traditional Ethernet),		
11 th	31 st	10 Mbps (Fast Ethernet) and 1000 Mbps (Gigabit Ethernet), Introduction to Media)		
	32 nd	Connectivity (Leased lines, ISDN, PSTN, RF,		
	33 rd	DSL, VSAT, Optical and IPLC		
12 th	34 th	Connectivity devices		
	35 th	Network connectivity Devices 100 - NICs - Hubs, bridges - Repeaters, switches - Routers - Gateways		
	36 th	Multiplexers - Modems		

Week	Theory		Practical	
	Lecture day	Topic (including assignment / test)	Practical Day	Topic
13 th	37 th	Network Trouble Shooting Techniques	6 th	Installation of Network Operating System(NOS)
	38 th	Trouble Shooting process - Trouble Shooting Tools:, ,		
	39 th	PING,IPCONFIG		
14 th	40 th	PING,IPCONFIG		Visit to nearby industry for latest networking techniques
	41 st	IFCONFIG, NETSTAT		
	42 nd	TRACEROOT, Wiresharp/ Dsniffer/ Pcop		
15 th	43 rd	IEEE 802.11- Architecture		
	44 th	IEEE 802.11- Architecture		
	45 th	Bluetooth- Architecture		