

Government Polytechnic For Women Sirsa

Lesson Plan

Name of the Faculty : Deepika
Department : Computer Engineering
Semester : 5th
Subject : Computer Networks
Lesson Plan Duration : 15 weeks

****Work load (Lecture / Practical) per week(in hours): Lectures-03, practicals -02**

Week	Theory		Practical	
	Lect. day	Topic (Including assignment / test)	Pract. Day	Topic
1st	1st	1. Networks Basics :Concept of network Models of network computing	1st	Recognize the physical topology of a network
	2nd	Network Models Peer-to –peer Network Server Client Network		
	3rd	Network Services Concept of switching Switching Techniques	2nd	Recognize the cabling (coaxial, OFC, UTP, STP) of a network
2nd	1st	Revision	1st	Recognition and use of various types of connectors RJ-45, RJ-11
	2nd	2. OSI Model : OSI Reference Model OSI Reference Model		
	3rd	Function of various layers in OSI Reference Model	2nd	Recognition and use of various types of connectors BNC and SCST
3rd	1st	Function of various layers in OSI Reference Model	1st	Recognition of network devices like Switches, Hub of access points for Wi-Fi
	2nd	Function of various layers in OSI Reference Model Contd.		
	3rd	3. Introduction to TCP/IP : Concept of physical addressing	2nd	Recognition of network devices like Routers of access points for Wi-Fi
4th	1st	Concept of logical addressing	1st	Making of cross cable
	2nd	IPV4 addressers- Address space, Notations Classful Addressing, Classless Addressing		
	3rd	Network Address Translation ,Different classes of IP addressing	2nd	Making of straight cable
5th	1st	special IP address	1st	Install a network interface card in a workstation.
	2nd	Sub netting		
	3rd	super netting Loop back concept	2nd	Configure a network interface card in a workstation.
6th	1st	IPV4 packet Format	1st	Identify the IP address of a workstation and the class of the address
	2nd	IPV6 packet Format		
	3rd	Revision		Configure the IP

	3rd	4. Network Architecture :Ethernet Specification	2nd	Address on a workstation
7th	1st	Ethernet Standardization 10 Mbps (Traditional Ethernet)	1st	Revision
	2nd	10 Mbps (Fast Ethernet)	2nd	Managing user accounts in windows
	3rd	1000 Mbps (Gigabit Ethernet)		
8th	1st	Introduction to Media Connectivity	1st	Managing user accounts in LINUX
	2nd	Leased lines		
	3rd	ISDN PSTN	2nd	Study of sub netting of IP address
9th	1st	RF	1st	Demonstration of sub netting of IP address
	2nd	DSL VSAT		
	3rd	Optical and IPLC	2nd	Revision
10th	1st	Revision	1st	Use of Netstat
	2nd	5. Connectivity devices :Network connectivity Devices		
	3rd	NICs, Hubs, bridges	2nd	Use of Netstat and its options.
11th	1st	Repeaters, switches	1st	Revision
	2nd	Multiplexers		
	3rd	Modems, Routers	2nd	Connectivity troubleshooting using PING
12th	1st	Gateways	1st	Connectivity troubleshooting using IPCONFIG
	2nd	Revision		
	3rd	6. Network Trouble Shooting Techniques : Introduction, Trouble Shooting process	2nd	Connectivity troubleshooting using IFCONFIG
13th	1st	Trouble Shooting Tools: PING	1st	Revision
	2nd	IPCONFIG		
	3rd	IFCONFIG NETSTAT	2nd	Installation of Network Operating System(NOS)
14th	1st	TRACEROOT	1st	Installation of Network Operating System(NOS)
	2nd	Wiresharp/ Dsniffer/ Pcop		
	3rd	IEEE : 802.11- Architecture	2nd	Installation of Network Operating System(NOS)
15th	1st	802.11- Architecture	1st	Visit to nearby industry for latest networking techniques
	2nd	Bluetooth- Architecture		
	3rd	Bluetooth- Architecture	2nd	Revision