Name of the Faculty : Ms. Madhu Madhan

Discipline : Computer Engg.

Semester : 5th

Subject : **Computer Networks**

Lesson Plan Duration : 15 weeks

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

Week	Theory		Practical	
	Lecture day	Topic (including assignment / test)	Practical Day	Topic
1st	1st	Unit-1-Networks Basics	1st	Recognize the physical topology and cabling (coaxial, OFC, UTP, STP)of a network.
	2nd	Concept of network - Models of network computing		
	3rd	- Networking models		
2nd	4th	- Peer-to –peer Network	2nd	Recognition and use of various types of connectorsRJ-45, RJ-11, BNC and SCST
	5th	Server Client Network - Network Services		
	6th	Concept of switching - Switching Techniques		
3rd	7th	NETWORKING MODELS :-OSI Model Definition, Layered Architecture	3rd	Recognition of network devices (Switches, Hub, Routers of access points forWi-Fi
	8th	Functions of various layers:- TCP/IP Model: Definition, Functions of various layers		
	9th	Comparison between OSI and TCP/IP model		
4th	10th	Function of various layers in OSI ReferenceModel	4th	Making of cross cable andstraightcable
	11th	Unit2:_TCP/IP ADDRESSING □ Concept of physical and logical addressing □□ □ □ □ Comparison between IPV4 and IPV6		
	12th	IPV4 addresses – Address space, Notations		
	13th	Classful Addressing- Different IP address classes, Classes & Blocks, Net-id & Host-Id,	5th	Install and configure a network interface card in a

5th	14th	Masks, Address depletion Classless Addressing – Address blocks, Masks Special IP Addresses		workstation
	15th	Subnetting and Supernetting 		
6th	16th	Loop back concept 		
	17th	Network Address Translation IPV6 Header		

	18th	Network Address Translation IPV4 Header IPV6 Header	6th	Identify the IP address of a workstation and the class of the address and configure the IP Address on a workstation
7th	19th	Unit:-3NETWORK ARCHITECTURE Ethernet specification	7th	Managing user accounts in windows and LINUX
	20th	standardization: 10 Mbps (Traditional Ethernet), .		
	21st	10 Mbps(Fast Ethernet) and 1000 Mbps (Gigabit Ethernet)		
8th	22nd	NETWORK CONNECTIVITY:-Network connectivity Devices	8th	Study and Demonstration of sub netting of IP address
	23rd	NICs Hubs, Switches, 		
	24th	Routers, Repeaters, Modem, Gateway		
9th	25th	Configuration of Routers & Switches	9th	Use of Netstat and itsoptions.
	26th	Unit-3:-revision		
	27th	Unit 4:-NETWORK ADMINISTRATION Network Security Principles,		Connectivity

10th	28th	Cryptography, using secure protocols	10th	troubleshooting usingPING, IPCONFIG, IFCONFIG
	29th	Trouble Shooting Tools: PING, IPCONFIG,		
	30th	IFCONFIG, NETSTAT,		
11th	31st	TRACEROOT,Wireshark, Nmap	11th	Installation of Network Operating System (NOS)
	32nd	, TCPDUMP, ROUTEPRINT		
	33rd	DHCP Server		
12th	34th	Workgroup/Domain Networking		
	35th	Unit:-V -I Revision	12th	Visit to nearby industry fo rlatest networking techniques
	36th	UNIT V INTRODUCTION TO WIRELESS NETWORKS		
13th	37th	Introduction to wireless LAN IEEE 802.11,	13th	Practices on practicals
	38th	Introduction to bluetooth - architecture,		
	39th	WiMax ad Li-Fi		
14th	40th	Wireless Security application	14th	Practices on practicals
	41st	Comparison between bluetooth and Wifi		
	42nd	Unit-5 revission		
15th	43rd	CLOUD COMPUTING:Definition of Cloud Computing and advantages of Cloud Computing.	15th	Practices on practicals
	44th	Cloud Computing service model- SaaS, PaaS, Iaas.		
	45th	Deployment model-Private Cloud, Public Cloud, Hybrid, Community cloud.		