Name of the Faculty **Krishan Kumar**
Discipline **Computer Engg**
Semester and Subject **5th , Computer Network**
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	Networks Basics	1st	Recognize the physical topology and cabling (coaxial, OFC, UTP, STP) of a network
	2nd	Models of network computing		
	3rd	Networking models		
2nd	4th	Peer-to –peer Network	2nd	Recognition and use of various types of connectors RJ-45, RJ-11,BNC and SCST
	5th	Server Client Network,		
	6th	LAN, MAN and WAN		
3rd	7th	Network Services	3rd	Recognition of network devices (Switches, Hub, Routers of access points for Wi-Fi
	8th	Network topologies		
	9th	Switching Techniques Circuit		
4th	10th	Message Switching	4th	Making of cross cable and straight cable
	11th	Packet Switching		
	12th	Revision		
5th	13th	OSI Reference Model Introduction	5th	Making of cross cable and straight cable
	14th	Function of various layers in OSI Reference Model		
	15th	Function of various layers in OSI Reference Model		
6th	16th	Function of various layers in OSI Reference Model	6th	Install and configure a network interface card in a workstation
	17th	Function of various layers in OSI Reference Model		
	18th	Function of various layers in OSI Reference Model		
7th	19th	Introduction to TCP/IP and function of various layes	7th	Identify the IP address of a workstation and the class of the address and configure the IP Address on a workstation
	20th	Comparison between OSI and TCP/IP Model		
	21st	Revision		
8th	22nd	Concept of physical and logical addressing	8th	Managing user accounts in windows and LINUX
	23rd	Classful Addressing, Classless,Addressing,		

	24th	Different classes of IP addressing, special IP Address		
9th	25th	Classless Addressing ,Address Blocks, Masks	9th	Managing user accounts in windows and LINUX
	26th	Sub netting and super netting		
	27th	IPv4 and IPv6 HEADER		
10th	28th	IPV4 and IPV6 packet Format	10th	Sharing of Hardware resources in the network
	29th	REVISION		
	30th	Ethernet Specification and Standardization		
11th	31st	100 Mbps (Fast Ethernet)	11th	Use of Netstat and its options
	32nd	1000 Mbps (Gigabit Ethernet), Introduction to Media)		
	33rd	Network Connectivity Devices,NICs,Multiplexers		
12th	34th	Hubs (type of Hubs),Switches	12th	Connectivity troubleshooting using PING, IPCONFIG, IFCONFIG
	35th	Bridge , Router- Repeaters, Gateways,Modems		
	36th	Network security Principles, Cryptography using secure protocols		
13th	37th	Network Trouble Shooting Tools: PING,IPCONFIG,IFCONFIG	13th	Installation of Network Operating System(NOS)
	38th	NETSTAT, TRACEROOT ,Wireshark		
	39th	Nmap, TCPDUMP, ROUTEPRINT		
14th	40th	DHCP Server, Workgroup/Domain Networking	14th	Create a network at least 6 Computers
	41st	Introduction to Wireless LAN 802.11		
	42nd	Wi MAX and Li Fi		
15th	43rd	IEEE 802.11- Architecture	15th	Visit to nearby industry for latest networking techniques
	44th	Bluetooth- Architecture		
	45th	Comparison between Bluetooth and WiFi		