

Electronics and Communication Engg. Department

Session 2024-25 (6th Sem.)

Subject : Computer Network (CN)

Load:- L-3 P-4

Week No	Lecture No	THEORY	PRACTICALS
1 week	1st lecture	UNIT I NETWORKS BASICS	Recognize the physical topology and cabling (coaxial, OFC, UTP, STP) of a network.
	2nd lecture	Concept of network ,Models of network computing	
	3rd lecture	Networking models ,Peer-to-peer Network	
2 week	1st lecture	Client-ServerNetwork, LAN, MAN and WAN	Recognition and use of various types of connectors RJ-45,RJ-11,BNC and SCST
	2nd lecture	Topologies ,Switching Techniques	
	3rd lecture	OSI model : Definition, Layered Architecture	
3 week	1st lecture	Functions of various layers	Making of cross cable and straight cable
	2nd lecture	TCP/IP Model: Definition, Functions of various layers	
	3rd lecture	Comparison between OSI and TCP/IP model	
4 week	1st lecture	UNIT II TCP/IP ADDRESSING	Install and configure network interface card in a workstation.
	2nd lecture	Concept of physical and logical addressing	
	3rd lecture	IPV4 addresses– Address space, Notations	
5 week	1st lecture	1st Sessional	Identify the IP address of a workstation and the class of the address and configure the IP Address on a workstation
	2nd lecture	Classful Addressing-Different IP address classes, Net-id & Host-Id, Masks, Classless Addressing–Address blocks,	
	3rd lecture	Special IP Addresses, Sub netting and Super netting	
6 week	1st lecture	Loop back concept, Network Address Translation	
	2nd lecture	IPV4Header, IPV6Header, Comparison between IPV4 and IPV6	
	3rd lecture	UNIT III NETWORK ARCHITECTURE	
7 week	1st lecture	Ethernet specification and standardization:10 Mbps and 1000 Mbps	Managing user accounts in windows.
	2nd lecture	Network connectivity Devices, NICs	
	3rd lecture	Hubs, Switches, Routers, Repeaters, Modem,	
8 week	1st lecture	Gateway adressess	Sharing of Hardware resources in the network.
	2nd lecture	Configuration of Routers & Switches	
	3rd lecture	UNIT IV NETWORK ADMINISTRATION	
9 week	1st lecture	Network Security Principles, Cryptography, using secure protocols	Installation of Network Operating System(NOS)
	2nd lecture	Trouble Shooting Tools: PING, IP CONFIG,	
	3rd lecture	2nd Sessional	
10 week	1st lecture	Trouble Shooting Tools: NETSTAT, TRACEROOT, Wire shark, N map,	Connectivity trouble shooting using PING, IP CONFIG
	2nd lecture	TCP DUMP, ROUTE PRINT	
	3rd lecture	DHCP Server ,DNS	
11 week	1st lecture	Workgroup/Domain Networking	Demonstration of Cloud Computing in Labs or using Online Videos.
	2nd lecture	UNIT V : INTRODUCTION TO WIRELESS NETWORKS	
	3rd lecture	Introduction to wireless LAN IEEE802.11, Wi Max ad Li-Fi	
12 week	1st lecture	Wireless Security, Introduction to blue tooth-architecture	
	2nd lecture	Comparison between bluetooth and Wifi, Application	
	3rd lecture	CLOUD COMPUTING	
13 week	1st lecture	Definition of Cloud Computing and advantages of Cloud Computing.	
	2nd lecture	Cloud Computing service model-SaaS, PaaS, IaaS.	
	3rd lecture	Deployment model-Private Cloud, Public Cloud, Hybrid, Community cloud.	
14 week	1st lecture	3rd Sessional	
	2nd lecture	REVISION	
	3rd lecture	REVISION	
15 week	1st lecture	REVISION	
	2nd lecture	REVISION	
	3rd lecture	REVISION	

*Extra classes taken in arrangement periods and practical labs.

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Lect.

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