ITE~~318~~ 3	**Computer Networks Lab**	L	T	P	C
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Prerequisite	ITE313				
Objectives	• To write programs to configure LAN,WAN • To analyze protocols and their performance				
Outcomes	Students shall be able to • Implement network protocols and analyze its performance. • Configure Networks.				
Exercises	1. Write a program to display the server's date and time details at the client end. 2. Write a program to display the client's address at the server end. 3. Write a program to implement an echo UDP server. 4. Write a program to develop a simple Chat TCP and UDP application. 5. Write a program to capture each packet and to examine its checksum field. 6. Network layer concepts; to be done with only computer a. Configuration of IP addresses b. Configuration of Subnet mask c. Configuration of Gateway d. Setting up LAN e. Connecting two or more different LAN with different subnet mask f. Making computer to work like router/gateway with the help of IP address 7. Protocol analyzer using ethereal a. Capturing and analyzing Ethernet frames b. HTTP GET/response interaction c. Analysis of ICMP and Ping d. Analysis of ICMP and Traceroute e. Capturing a bulk TCP transfer from your computer to a remote server 8. Additional activities (Optional) a. Compute checksum fields using CRC-12 and examine the same during the frame transmission. b. Implementation of sliding window protocol as part of DLC. c. IPv4 and IPv6 protocol testing and implementation. d. TCP and UDP protocol testing and implementation. e. SNMP implementation f. SMTP implementation g. RSA public key and private key encryption and decryption h. Data compression using Huffman codes.				
MoE	CAT, Coding Practice, Observation Book, On-the-spot Exercises, and TEE				
Recommended by the Board of Studies on					
Date of Approval by the Academic Council					