

ROLLNO.....

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING,
SCHOOL OF ENGINEERING SCIENCES & TECHNOLOGY,
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SUPPLEMENTARY EXAM 2023

PAPER: COMPUTER NETWORKS
TIME: 3 HRS

PAPER CODE: BTCSE 603 /LE/AI
MAXIMUM MARKS: 75

COURSE OUTCOME (CO)

- CO-1: Understand the concepts of data communication and networks, TCP/IP and OSI reference models.
CO-2: Analyze, specify and design the topological and routing strategies for an IP based networking infrastructure
CO-3: Demonstrate the working of existing protocols and identify deficiencies in existing protocols, and formulate new and better protocols.
CO-4: Develop network programming for a given problem.
CO-5: Configure DNS DDNS, TELNET, EMAIL, File Transfer Protocol (FTP), WWW, HTTP, SNMP, Bluetooth, Firewalls using open source available software and tools.

SECTION A

All questions of Section A are compulsory (7*5)

S.NO	QUESTIONS	MARKS	CO	BL
Q1.	Explain about Application layer and its services in detail?			
Q2.	Draw a hybrid topology with a ring backbone and five star networks.	5	CO1	L3
Q3.	Find the class of the following IP addresses. a) 208.34.54.12 b) 238.34.2.1 c) 114.34.2.8 d) 129.14.6.8	5	CO5	L1
Q4.	What is the difference between slotted ALOHA over Pure ALOHA?	5	CO2	L4
Q5.	Compare the TCP and UDP protocols.	5	CO2	L2
Q6.	Explain different types of switching techniques.	5	CO3	L3
		5	CO2	L1

Q7.	What is a URL and what are its components?	5	CO2	L1
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SECTION B

*Answer any 4 questions in Section B (4*10)*

S.NO	QUESTIONS	MARKS	CO	BL
Q1.	The UDP header in hexadecimal format is as : CB84000D001C001C Obtain the following from it: 1. Source port number 2. Destination port number 3. Total length 4. Length of the data. 5. Name of client process	10	CO3	L4
Q2.	Discuss the various network topologies with a neat labeled diagram. Also, discuss their advantages and disadvantages of each.	10	CO4	L1
Q3.	A block of addresses is granted to a small organization. We know that the address is 205.16.37.39/28. • What is the first address in the block? • Find the last address for the block • Find the number of addresses	10	CO3	L2
Q4.	Write short note on: a) DNS b) WWW c) HTTP d) FTP	10	CO2	L3
Q5.	What is "Two Node Loop Instability"? How can it be prevented?	10	CO5	L5
Q6.	Explain the ISO-OSI model of computer network with a neat diagram	10	CO3	L2

BLOOMS TAXONOMY LEVELS (BL)
1-REMEMBERING, 2-UNDERSTANDING, 3-APPLYING,
4-ANALYZING, 5-EVALUATING, 6-CREATING