III B. Tech I Semester Supplementary Examinations, Dec/Jan -2022-23
COMPUTER NETWORKS
(Computer Science and Engineering)

Time: 3 hours   Max. Marks: 75

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks
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UNIT-I

1	a)	Explain OSI reference model	[8M]
	b)	Compare OSI and TCP/IP reference models.	[7M]

(OR)

2	a)	Explain the differences between connection-oriented and connectionless services	[8M]
	b)	Summarize wireless medium.	[7M]

UNIT-II

3	a)	Compare Pure Aloha and slotted Aloha	[8M]
	b)	Explain line encoding and block encoding techniques.	[7M]

(OR)

4	a)	What are the data link layer services? Explain.	[8M]
	b)	Explain how to ensure reliable delivery in data link layer.	[7M]

UNIT-III

5.	a)	Explain standard Ethernet.	[8M]
	b)	Illustrate error detection techniques.	[7M]

(OR)

6	a)	Compare PAN and LAN.	[8M]
	b)	A bit stream 11100011 is transmitted using the standard CRC method. The generator polynomial is x^4+x^3+1. Show the actual bit string transmitted. Suppose the third bit from the left is inverted during transmission. What are the consequences?	[7M]

UNIT-IV

7	a)	Compare unicasting, multicasting, broadcasting and the addresses used for them.	[8M]
	b)	A host in an organization has an IP address 164.64.64.32 and a subnet mask 255.255.240.0. What is the address of this subnet? How many hosts can be addressed by this subnet? Specify the range of addresses of this subnet?	[7M]

(OR)

8	a)	Explain Distance Vector Routing with an example.	[8M]
	b)	Infer reasons for packet loss in the network.	[7M]

UNIT-V

9	a)	What are the strategies of client and server in case of crash recovery?	[8M]
	b)	Compare reliable and unreliable data transmission protocols.	[7M]

(OR)

10	a)	Explain the architecture of WWW. Discuss client and server side functionality of this architecture.	[8M]
	b)	What is the purpose of Domain Name System? Explain implementation of it.	[7M]