Code No: R2031051 **R20** SET - 1

III B. Tech I Semester Supplementary Examinations, May/June -2024
COMPUTER NETWORKS
(Common to CSE, IT)

Time: 3 hours Max. Marks: 70

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 in detail.	[10M]
	b)	Compare OSI reference model with TCP/IP reference model.	[4M]
		(OR)	
2.		What is guided media? Explain different types of guided media.	[14M]

UNIT-II

3.	a)	Discuss how data link layer provides flow control and error control.	[7M]
	b)	Calculate the polynomial checksum for the following frame and generator. Frame: 1101011011and Generator: x^4+x+1	[7M]
		(OR)	
4.		Discus different sliding window protocols of data link layer.	[14M]

UNIT-III

5.	a)	Discuss different controlled access protocols.	[7M]
	b)	Interpret the concept of fast Ethernet.	[7M]
		(OR)	
6.	a)	Enumerate the concept of ALOHA in detail?	[4M]
	b)	Explain Gigabit Ethernet architecture in detail.	[10M]

UNIT-IV

7.	a)	Discuss network layer design issues.	[4M]
	b)	Explain Link state routing algorithm with a suitable example.	[10M]
		(OR)	
8.	a)	Explain the concept of Leaky bucket algorithm.	[6M]
	b)	Explain IPV6 header format and compare it with IPv4.	[8M]

UNIT-V

9.	a)	Suppose a TCP connection is transferring a file of 5000 bytes. The first byte is numbered 10,001. What are the sequence numbers for each segment if data is sent in five segments, each carrying 1000 bytes?	[6M]
	b)	Discuss how TCP provide flow and Error control.	[8M]
		(OR)	
10.	a)	Discuss HTTP protocol in detail.	[7M]
	b)	What is DNS? Discuss DNS in internet.	[7M]