

**PRAGATI ENGINEERING COLLEGE: SURAMPALEM  
(AUTONOMOUS)**

**III B.Tech II Semester Regular Examinations, April - 2024**

**COMPUTER NETWORKS**

**(Minor in CSE)**

**Time: 3 hours**

**Max. Marks: 70M**

**Answer ONE Question from each Unit**

**All Questions Carry Equal Marks**

Q. No.	Questions	BTL	CO	Marks
<b>UNIT – I</b>				
1.	a) Generalize about LAN, MAN and WAN.	K2	CO1	7M
	b) Explain the purpose of cladding in optical fiber.	K2	CO1	7M
<b>OR</b>				
2.	a) Explain in detail about the TCP/IP protocol suite with a neat diagram.	K2	CO1	14M
<b>UNIT – II</b>				
3.	a) What is the need for error detection? Explain the methods used for error detection and error correction with typical examples.	K2	CO2	14M
<b>OR</b>				
4.	a) Discuss Stop and Wait protocol.	K2	CO2	7M
	b) Define PPP. Describe in detail with a neat diagram.	K2	CO2	7M
<b>UNIT – III</b>				
5.	a) What is the purpose of CSMA with Collision Prevention? Explain it.	K3	CO3	7M
	b) Write about Standard Ethernet, Fast Ethernet and Gigabit Ethernet.	K2	CO3	7M
<b>OR</b>				
6.	a) Write in detail on Time Division Multiplexing and Frequency Division Multiplexing.	K2	CO3	7M
	b) Explain about Pure Aloha and Slotted Aloha.	K2	CO3	7M
<b>UNIT – IV</b>				
7.	a) Differentiate the Virtual circuit and Datagram networks.	K2	CO4	7M
	b) Explain Distance Vector routing algorithm with an example.	K2	CO4	7M
<b>OR</b>				
8.	a) Explain the Hierarchical Routing algorithm and discuss its advantages and limitations.	K3	CO4	7M
	b) Discuss the different Congestion control policies.	K2	CO4	7M
<b>UNIT – V</b>				
9.	a) Explain the structure of the UDP header.	K2	CO5	7M
	b) Explain in brief about the formats of HTTP request and Response messages?	K2	CO5	7M
<b>OR</b>				
10.	a) What is DNS? List and discuss Resource record entries in DNS.	K3	CO5	7M
	b) Illustrate the connection establishment and release in TCP.	K3	CO5	7M