

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

III B.Tech I Semester Supplementary Examinations, May - 2024

**COMPUTER NETWORKS
(Common to CSE and IT)**

Time: 3 hours

Max. Marks: 70M

**Answer ONE Question from each Unit
All Questions Carry Equal Marks**

Q. No.	Questions	BTL	CO	Marks
UNIT – I				
1.	Draw the OSI Network architecture and explain the functionalities of every layer in detail.	K2	CO1	14M
OR				
2.	Explain about Coaxial pair cable, Twisted pair cable and fiber optic cable and unguided media. Analyze the advantages of one over the other.	K4	CO1	14M
UNIT – II				
3.	a) Describe the services provided by Data Link Layer.	K1	CO2	7M
	b) Define PPP. Describe in detail with a neat diagram.	K2	CO2	7M
OR				
4.	a) Explain simplex protocol for noisy channels.	K2	CO2	7M
	b) Discuss about a) GO BACK N ARQ b) Selective repeat ARQ	K2	CO2	7M
UNIT – III				
5.	a) Explain detail about the carrier sense multiple access protocols.	K2	CO3	7M
	b) Describe the working principle of Carrier sense multiple access with collision Detection (CSMA/CD).	K2	CO3	7M
OR				
6.	a) Explain the Code Division Multiple Access.	K2	CO3	7M
	b) Explain in detail about Standard Ethernet.	K2	CO3	7M
UNIT – IV				
7.	a) Explain the Hierarchical Routing algorithm and discuss its advantages and limitations.	K2	CO4	7M
	b) Explain Leaky Bucket and Token Bucket algorithms.	K2	CO4	7M
OR				
8.	a) What is a Routing Algorithm? Briefly discuss Adaptive Routing Algorithms and Non – Adaptive Routing Algorithms.	K2	CO4	7M
	b) Explain the Link State Routing protocol with an example.	K2	CO4	7M
UNIT – V				
9.	a) Discuss in detail about the connection establishment and release in TCP.	K4	CO5	7M
	b) What is electronic mail? Describe in brief about different agents involved in ending and receiving e-mail.	K2	CO5	7M
OR				
10.	a) Write about Flow control, Error control and Congestion control in TCP.	K1	CO5	7M
	b) Explain briefly about the Architecture of WWW.	K2	CO5	7M