Reg. No.												

Question Paper Code	12076

24 JUL 2023

B.E. / B.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2023

Fourth Semester

Computer Science and Engineering

(Common to Information Technology & Artificial Intelligence and Data Science)

20CSPW401 - COMPUTER NETWORKS WITH LABORATORY

(Regulations 2020)

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks, K-Level, CO
1.	What are the features provided by layering?	*2,K1,CO1*
2.	Define network and its types.	*2,K1,CO1*
3.	What are the functions of MAC?	*2,K1,CO2*
4.	What is the role of LLC in the data link layer?	*2,K1,CO2*
5.	List the salient features of IPv4.	*2,K2,CO3*
6.	What is flow Control?	*2,K1,CO3*
7.	Define IP spoofing.	*2,K1,CO4*
8.	What is multicasting?	*2,K1,CO4*
9.	List the advantage of IMAP.	*2,K1,CO6*
10.	Define Hypertext and hypermedia.	*2,K1,CO6*

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11.	a)	(i) Explain the Topologies of the Computer Network.	*7,K2,CO1*
		(ii) Explain Protocol Layering with neat diagram.	*6,K2,CO1*
		OR	
	b)	Explain OSI Layer and the functions of each layer.	*13,K2,CO1*
12.	a)	Define Ethernet. Explain the working principle of Ethernet and its frame format.	*13,K2,CO2*
		OR	
	b)	Explain the architecture and techniques used in BLUETOOTH.	*13,K2,CO2*
13.	a)	Discuss in detail about the problems associated with Ethernet LAN.	*13,K2,CO3*
		OR	
	b)	Explain about collision avoidance in Wi-Fi (802.11).	*13,K2,CO3*

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

14. a) (i) Explain in detail about Switching and Forwarding. *7,K2,CO4*

(ii) Explain in detail about the concept of connection-oriented service. *6,K2,CO4*

OR

b) Explain the concept to include the role of IP addresses in forwarding. *13,K2,CO4*

15. a) Explain various protocols used in Electronic mail. *13,K2,CO6*

OR

b) Discuss in detail about MIME type. *13,K2,CO6*

PART - C (1 × 15 = 15 Marks)

16. a) Define UDP. Discuss the operations and checksum of UDP with an example. *15,K2,CO5*

OR

b) Describe about TCP in detail with neat diagram. *15,K2,CO5*