Reg.No: | | | | | | | |

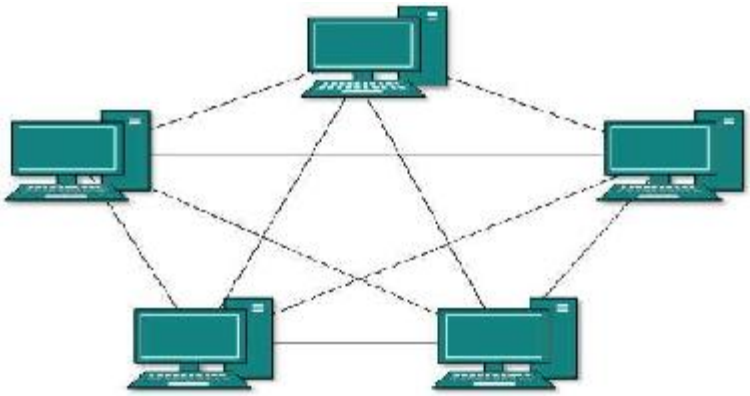
SNS College of Technology, Coimbatore-35.
(Autonomous)
B.E/B.Tech- Internal Assessment -I
Academic Year 2024-2025(ODD)
Fifth Semester
Computer Science and Engineering
19CSB301-Computer Networks
[Common to CSE & IT]

A

Time: 1.5 Hours **Maximum Marks: 50**

Answer All Questions

			CO	Blooms
		PART - A (5x 2 = 10 Marks)		
1.		What are the three criteria necessary for an effective and efficient network?	CO1	Und
2.		How many wires are required for a mesh topology network for 6 devices in full duplex mode?	CO1	App
3.		Compare point to point link and multipoint link.	CO1	Ana
4.		What is the difference between MAC address and IP address ?	CO2	Ana
5.		A bit string, 0111101111101111110, needs to be transmitted at the data link layer. What is the string actually transmitted after bit stuffing?	CO2	App
		PART – B (13+13+14=40 Marks)		
6.	(a)	Identify the layered architecture in networking and explain in detail about function performed by every layer. 13	CO1	Ana
		(or)		
	(b)	(i) Identify the type of topology and elaborate the remaining network connections with neat sketch. 13	CO1	Ana



7.	(a)	Explain in detail the character oriented protocols and Bit oriented protocols. Illustrate with an example the need of Bit stuffing and Unstuffing in the Bit oriented protocols	13	CO2	Und
		(or)			
	(b)	Describe the various methods of error detection in the data link layer with necessary examples	13	CO2	Und
8.	(a)	Suppose the data unit to be transmitted to the receiver is 0101001 00111001, explain the steps involved in the transmission of data from Sender side to Receiver side using checksum method.	14	CO2	App
		(or)			
	(b)	Consider a block of data bits 100100000 needs to be transmitted into the network. The divisor is chosen for computing the codeword as 1101. After transmission the data is received at the receiver end as 100100001. Check whether the data received is a correct data or errored data using the CRC method	14	CO2	App

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(Note: Und-Understand Rem-Remember App- Apply Ana-Analyze)

Prepared by **Verified by** **HOD**