GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER– IV• EXAMINATION – WINTER 2020

Subject Code:3640002   **Date:02/01/2021**
Subject Name:Basic Computer Science-3(ComputerNetworking)
Time:02:00 PM to 04:00 PM   **Total Marks: 56**

Instructions:
1. **Attempt any FOUR questions out of EIGHT questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Explain OSI reference model for communication with its all seven layers.	**07**
	(b)	Explain network categories based on their scope.	**07**
Q.2	**(a)**	Explain UTP cable with its characteristics.	**07**
	(b)	What is modulation? Explain Amplitude, Frequency, and Phase modulation techniques.	**07**
Q.3	**(a)**	Explain CRC method with appropriate example of your choice.	**07**
	(b)	Specify the condition where flow control is required. Explain various flow control mechanisms.	**07**
Q.4	**(a)**	Explain Wireless LAN Protocol (802.11)	**07**
	(b)	Explain connection oriented forwarding using virtual circuits.	**07**
Q.5	**(a)**	Explain types of Resource Records.	**07**
	(b)	Explain Link State Routing algorithm.	**07**
Q.6	**(a)**	Explain Fast Ethernet.	**07**
	(b)	Explain the structure of the HTTP query and response.	**07**
Q.7	**(a)**	Define terms: Multiplexing, De-multiplexing, and Port numbers.	**07**
	(b)	Explain RED for reacting to congestion.	**07**
Q.8	**(a)**	Explain Ad-hoc and Infrastructure modes.	**07**
	(b)	Specify the requirements of a good routing algorithm.	**07**

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