Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER– V(OLD) EXAMINATION – SUMMER 2019
Subject Code: 150702   **Date: 06/06/2019**
Subject Name: Computer Network
Time: 02:30 PM TO 05:00 PM   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Draw the OSI reference model. Explain the functionality of each layer in brief.	**07**
	(b)	What is topology? List out different types of topology and explain each in detail	**07**
Q.2	**(a)**	Write a note on guided and un-guided transmission medium	**07**
	(b)	Explain ALOHA system. How slotted ALOHA works? Differentiate it with pure ALOHA.	**07**

OR

	(b)	Draw and explain Ethernet 802.3 Frame structure.	**07**
Q.3	**(a)**	What is the difference between error detection and correction? Explain any one error correction technique with suitable example	**07**
	(b)	Describe the working of sliding window protocol. Also explain the piggybacking phenomenon	**07**

OR

Q.3	**(a)**	What is Routing? Explain shortest path routing with example.	**07**
	(b)	Explain IPv4 datagram format and importance of each filed	**07**
Q.4	**(a)**	Explain ICMP & IGMP in detail	**07**
	(b)	Explain various versions of CSMA protocols.	**07**

OR

Q.4	**(a)**	What is count-to-Infinity problem? Explain it with example.	**07**
	(b)	What is DNS? How resource records are maintained in DNS?	**07**
Q.5	**(a)**	Write a note on HTTP.	**07**
	(b)	Write a short note on Mobile IP	**07**

OR

Q.5	**(a)**	Differentiate Datagram and Virtual circuit	**07**
	(b)	Draw and explain TCP packet header.	**07**

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