Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V (OLD) - EXAMINATION – SUMMER 2017

Subject Code: 150702 **Date: 05/05/2017**

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)**	Discuss different types of guided and unguided media used to transmit data in network.	**07**
	(b)	Draw the OSI reference model. Explain the functionality of each layer in brief.	**07**
Q.2	**(a)**	Explain Ethernet Frame structure.	**07**
	(b)	What is Hamming Code? Explain how it is useful in error correction.	**07**
		OR	
	(b)	Explain link state routing with all the five steps in detail.	**07**
Q.3	**(a)**	Explain Sliding Window Protocol.	**07**
	(b)	Explain IPv4 datagram format and importance of each filed.	**07**
		OR	
Q.3	**(a)**	What is ALOHA? Explain variants of ALOHA protocol.	**07**
	(b)	Compare the IPv4 and IPv6.	**07**
Q.4	**(a)**	What is RPC? Draw and explain steps for RPC.	**07**
	(b)	Explain stop and wait protocol for simplex communication.	**07**
		OR	
Q.4	**(a)**	What is DNS? How resource records are maintained in DNS?	**07**
	(b)	Explain working principle of wireless LAN protocols.	**07**
Q.5	**(a)**	E-mail systems contain which two subsystems? Write the five basic functions provided by e-mail system.	**07**
	(b)	Explain the Mobile-IP.	**07**
		OR	
Q.5	**(a)**	Differentiate the following: (i) Connection Oriented Services and Connection Less Services (ii) OSPF and BGP	**07**
	(b)	Explain following - Piggy backing - Selective Repeat and Go back N	**07**

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