Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – I • EXAMINATION – WINTER 2012

Subject code: 712604N **Date: 10-01-2013**

Subject Name: Computer Communication and Networking

Time: 02.30 pm – 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)**	Explain the different computer network functions	**07**
	(b)	Explain the OSI reference model with diagram.	**07**
Q.2	**(a)**	Give the HDLC frame format and explain the bit stuffing scheme is used. Also give the control field format of the different types of frames used.	**07**
	(b)	Define and briefly explain following terms: a. Analog Data, b. Latency (Delay) ,c. Signals, d. Bandwidth e. Bit rate, f. Baud rate, g. Throughput	**07**
		OR	
	(b)	Define physical topology. Explain all topologies with its advantages and disadvantages	**07**
Q.3	**(a)**	What are the advantages of digital communication over analog communication	**07**
	(b)	Compare the OSI and TCP/IP models. Explain the difference between them.	**07**
		OR	
Q.3	**(a)**	Explain Guided media Vs Unguided media	**07**
	(b)	Generate the CRC code for the data word of 1100 10101.The divisor is 10101.	**07**
Q.4	**(a)**	Compare IEEE 802.11a/b/g Standards	**07**
	(b)	Explain UDP in details.	**07**
		OR	
Q.4	**(a)**	Write short note on (1) http (2)www	**07**
Q.4	**(b)**	Describe the various parts of e-mail address and show the process of sending and receiving e-mails.	**07**
Q.5	**(a)**	What are the differences between packet switching and circuit switching?	**07**
	(b)	Write short notes on (1) Bluetooth.(2) Ad hoc Network	**07**
		OR	
Q.5	**(a)**	Explain the working of DSN.	**07**
	(b)	Describe Public Key Cryptography	**07**

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