Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VIII • EXAMINATION – WINTER • 2014

Subject Code: 181101   **Date: 02-12-2014**

Subject Name: Data 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)**	Write a short note on Layer1, Layer2 and Layer3 devices in the context of OSI reference model	**07**
	(b)	Explain the four levels of addresses in TCP/IP protocols.	**07**
Q.2	**(a)**	Describe the performance measurement terms for the overall measurement of the network performance.	**07**
	(b)	Write a short note on Ethernet.	**07**
		OR	
	(b)	Write a short note on Bluetooth.	**07**
Q.3	**(a)**	Differentiate the Pure ALOHA and Slotted ALOHA protocols.	**07**
	(b)	Illustrate the techniques in short which are used for achieving Good Quality of Service at Network Layer.	**07**
		OR	
Q.3	**(a)**	Explain the role of Network Layer in the Internet.	**07**
	(b)	Differentiate the IPv4 and IPv6 in detail	**07**
Q.4	**(a)**	Write a short note on services provided by the TCP at Transport layer.	**07**
	(b)	List the types of DNS messages and explain in detail.	**07**
		OR	
Q.4	**(a)**	Write a short note on HTTP.	**07**
	(b)	Explain the DES and Triple DES algorithms.	**07**
Q.5	**(a)**	Describe the working of VPN.	**07**
	(b)	Write a short note on IPSec.	**07**
		OR	
Q.5	**(a)**	Briefly explain the working of PGP.	**07**
	(b)	Write a short note on SSL.	**07**

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