Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – WINTER • 2013

Subject code: 1720401 **Date: 24-12-2013**

Subject Name: Telecom Switching System, Networks and Network Management

Time: 10.30 am – 01.00 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 Elements of Switching System.	**07**
	(b)	What is Remote Monitoring? Draw ATM network reference model and explain ATM Remote Monitoring in brief	**07**
Q.2	**(a)**	Explain time slot interchange switch.	**07**
	(b)	Consider a Birth-Death process in detail.	**07**
		OR	
	(b)	Given that MTBF=2500 hours and MTTR= 5 hours, calculate the unavailability and availability for single and dual processor system.	**07**
Q.3	**(a)**	Compare Single stage and Multi stage networks.	**07**
	(b)	Define: i) Grade of service ii) Blocking Probability iii) Folded Network iv) BHCA v) Centum call second vi) Peak Busy Hour vii) Fully Connected Network.	**07**
		OR	
Q.3	**(a)**	Explain parallel-in/serial-out configuration of time multiplexed time division time switch.	**07**
	(b)	i) Classify switching system. ii) What is a fully connected network? How many links are required for fully interconnecting 15 subscribers?	**07**
Q.4	**(a)**	What are the two schemes for migration from SNMPV1 to SNMPV2?	**07**
	(b)	Explain Architecture of SNMPV3. List the applications of SNMPV3 and explain any two in brief.	**07**
		OR	
Q.4	**(a)**	Explain advantages of Get-next-request over Get-request of SNMPv1 using appropriate example.	**07**
	(b)	i) Explain virtual path - virtual circuits with configuration diagram? ii) Explain ATM Network Reference model?	**07**
Q.5	**(a)**	What are the basic software tools for network management? And explain each in brief.	**07**
	(b)	i) Explain monitoring of a total network with individual RMON probes. ii) Explain firewalls for network protection.	**07**
		OR	
Q.5	**(a)**	Describe the function of various Layer of ISO-OSI Model.	**07**
	(b)	Write Short Note on web based management.	**07**

****