Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER II (OLD) – • EXAMINATION – SUMMER 2016

Subject Code: 1720401 Date:17/05/2016

Subject Name: Telecom Switching System, Networks and Network Management

Time:10:30 am to 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)** Explain the following terms for Telecom switching system. **07**

1. Blocking and Non Blocking Network
2. Folded and Non folded Network 3. Transit Exchange

(b) Explain the following Enhanced services of telecom network. **07**

1. Abbreviated Dialling 2. Call Forwarding
3. Conference call facility 4. Consultation Hold

Q.2 **(a)** Compare the single stage and multistage stage networks. **07**

(b) A group of 20 servers carry traffic of 10 erlangs. If the average duration of a call is three minutes, calculate the number of calls put through by a single server and the group as a whole in a one hour period. **07**

OR

(b) A subscriber makes three phone calls of three minutes, four minutes and two minutes duration in a one hour period. Calculate the subscriber traffic in erlangs, CCS and CM. **07**

Q.3 **(a)** Explain standby mode and load sharing mode of dual processor in centralized SPC. **07**

(b) Explain the sequential write/random read and random write /sequential read phased operation of basic time division time switch. **07**

OR

Q.3 **(a)** Explain horizontally and vertically decomposed distributed processing and level 2 processing of distributed SPC. **07**

(b) Explain the random input/random output phased operation of basic time division time switch. **07**

Q.4 **(a)** Explain parallel-in/parallel -out configuration of time multiplexed time division time switch. **07**

(b) What are SNMP operations? Explain all in brief for SNMPv1, SNMPv2. Describe two techniques for instance object identification in SNMP. **07**

OR

Q.4 **(a)** What are the advantages of multistage network? Explain the two stage space division network and derive the blocking probability equation. **07**

(b) Explain advantages of Get-next-request over Get-request of SNMPv1 using appropriate example. **07**

Q.5 **(a)** Explain TCP-IP protocol Suit. Compare it with OSI Reference Model. **07**

(b) How many solutions are widely available for web based management? Explain the web based network management solution. **07**

OR

Q.5	**(a)**	Write short note on Remote Monitoring.	**07**
	(b)	Explain the LCC system with finite subscribers with derivation of blocking probability and GOS.	**07**

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