# GUJARAT TECHNOLOGICAL UNIVERSITY
## ME – SEMESTER II (OLD) EXAMINATION – SUMMER 2017

**Subject Code: 1720401**                    **Date:09/05/2017**

**Subject Name**: Telecom Switching System ,Networks and Network Management

**Time:10:30 A.M. to 01:00 P.M.**                 **Total Marks: 70**

**Instructions:**
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

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|---|---|---|---|
| **Q.1** | **(a)** | Compare micro-programmed control and hard-wired control unit in distributed control system | **07** |
| | **(b)** | Explain two stage blocking network and derive the equation for blocking probability. | **07** |
| **Q.2** | **(a)** | What is time multiplexed time switching? Also discuss time slot interchange procedure. | **07** |
| | **(b)** | Discuss call congestion and time congestion in detail. | **07** |
| | | **OR** | |
| | **(b)** | (i) Define Traffic intensity, CCS and BHCA | **03** |
| | | (ii)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. | **04** |
| **Q.3** | **(a)** | Calculate the maximum access time that can be permitted for the data and control memories in a TSI switch with a single input and single output trunk multiplexing 2500 channels. Also estimate the cost of the switch and compare it with that of a single stage space division switch. | **07** |
| | **(b)** | Draw and Explain Two stage Networks of Space Division Switching. | **07** |
| | | **OR** | |
| **Q.3** | **(a)** | Discuss Parallel-in/Serial-out Configuration of Time Multiplexed Time switching. | **07** |
| | **(b)** | Explain any two MAC Protocols with necessary details. | **07** |
| **Q.4** | **(a)** | Enlist messages of SNMPv1 and explain function of each message in detail. | **07** |
| | **(b)** | What are the various Internet MIB-II groups of SNMPv1? Briefly describe function of each group. | **07** |
| | | **OR** | |
| **Q.4** | **(a)** | Explain SNMPv2 architecture. What is the main disadvantage of SNMPv2? | **07** |
| | **(b)** | Briefly explain each block of basic software tools for Network Management. | **07** |
| **Q.5** | **(a)** | What are GetRequest and Protocol Data Unit (PDU)? Discuss these with PDU Structure. | **07** |
| | **(b)** | What are the advantages of Remote monitoring network (RMON)? | **07** |
| | | **OR** | |
| **Q.5** | **(a)** | Enumerate SNMPv3 architecture. | **07** |
| | **(b)** | Write a short note on Web based Management. | **07** |

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