

Roll No.

Total No. of Questions : 08]

[Total No. of Pages : 01

M.Tech.

DATA COMMUNICATION NETWORKS

SUBJECT CODE : EC - 503

Paper ID : [E0563]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 100

Instruction to Candidates:

- 1) Attempt any **Five** questions.
- 2) All questions carry equal marks.

- Q1)** (a) Compare transmission of analog data and signal with digital data and signal? Also tell which one is the best method and why?
(b) Explain various transmission impairments in data transmission?
- Q2)** (a) Explain asynchronous transmission of serial data?
(b) Explain with example why shift register implementation of CRC will result in all 0s at receiver if there are no errors?
- Q3)** Discuss sliding window flow control in data link control?
- Q4)** Explain with block diagram what is synchronous TDM?
- Q5)** (a) Describe LAN architecture along with Bus and Tree topologies?
(b) Discuss most commonly used MAC protocol for ring topology LANs?
- Q6)** (a) Discuss the new version of IP with an increased address space?
(b) Discuss transport layer protocol in computer communication?
- Q7)** (a) Describe architecture of ATM networks?
(b) Explain firewall filtering?
- Q8)** Explain Windows NT/Unix/Linux network operating system?

