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Total No. of Questions: 08

M.Tech (ECE) (Sem.-1)

## DATA COMMUNICATION NETWORK

Subject Code: EC-503 Paper ID: [E0563]

Time: 3 Hrs. Max. Marks: 100

## **INSTRUCTIONS TO CANDIDATES:**

- 1. Attempt any FIVE questions out of EIGHT questions.
- 2. Each question carries TWENTY marks.
- Q1. a) What is Multiplexing and its types? Explain the difference between TDM and STDM in detail.
  - b) Explain the various transmission media in detail.
- Q2. What is difference between error detection and correction? Explain digital CRC in detail with the help of example.
- Q3. a) Explain the design issues of data link layer.
  - b) Discuss about the mobile IP33N in detail
- Q4. Explain the Architecture and working of ATM. Also discuss header error control operation of receiver.
- Q5. What are advantages of IPv6 over IPv4? Describe three IPv6 special addresses.
- Q6. What is OSI model? Describe the TCP/IP and X.25 protocols models.
- Q7. a) Explain the communication networks in detail.
  - b) Discuss in detail about the medium access control protocols.
- Q8. Write a short note on **any two**:
  - a) FDDI
  - b) DQDB
  - c) Firewalls