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Roll No. ....

**TBC-402**

**B. C. A. (FOURTH SEMESTER)  
MID SEMESTER EXAMINATION, 2021  
DATA COMMUNICATION AND COMPUTER  
NETWORKS**

**Time : 1½ Hours**

**Maximum Marks : 50**

**Note :** (i) Answer all the questions by choosing any *one* of the sub-questions.

(ii) Each question carries 10 marks.

1. (a) Define LAN. And discuss the different topologies to design LAN with suitable example and neat and clean diagram.

10 Marks (CO1)

OR

- (b) Explain Digital to Analog conversion techniques with example.

10 Marks (CO2)

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2. (a) Discuss the data communication components and characteristics with proper example. 10 Marks (CO1)

OR

- (b) Explain the various guided transmission media. 10 Marks (CO2)
3. (a) Explain different modes of communication with diagram. 10 Marks (CO1)

OR

- (b) Write a detailed note on various electronics and communication standardization organization. 10 Marks (CO1)
4. (a) Discuss the PCM technique with neat and clean diagram. 10 Marks (CO2)

OR

- (b) Define computer network. Explain different advantages and application of computer networks. 10 Marks (CO1)

(3)

5. (a) Why do we need encoding ? Draw the Signal using Manchester and differential Manchester encoding scheme for 10110110. 10 Marks (CO2)

OR

- (b) Explain different categories/types of networks ? 10 Marks (CO1)