BT–5/D–21   **45155**

INTRODUCTION TO DIGITAL & DATA COMMUNICATION

Paper–IT–303N

Time Allowed : 3 Hours]   [Maximum Marks : 75

Note : Attempt **five** questions in all, selecting at least **one** question from each Unit. All questions carry equal marks.

UNIT–I

1. (a) List the tyes of Communication channels? Explain the different classifications of electronic communication system.   8

   (b) Differentiate between AM. FM and PM   7

2. (a) Draw comparison between Analog and Digital modulation? Write in brief the advantages and disadvantages of Digital communication.   8

   (b) What do you mean by Signal and concept of bandwidth? Write the sources of signal.   7

UNIT–II

3. (a) What is TDM? Compare STDM and STAT MUX methods of time division multiplexing.   8

   (b) Explain the FDM. What methods are used to send FDM channels.
                                                                                 7

4. (a) Explain sampling theorem. What is quantization process and why is it required?   8

   (b) Write a detailed note on PAM and PPM.   7

UNIT–III

5. What is Line coding? Explain various encoding scheme with suitable examples.
                                                                                 15

6. What are modulation techniques? Differentiate among ASK, PSK and FSK? Which technique is better among them? 15

UNIT–IV

7. (a) Differentiate between Synchronous and Asynchronous transmission. 8

(b) What is meant by error detection and correction? Explain the Hamming code with an example 7

8. Explain the following : 8,7

(a) RS-449 (b) HDMI.