BT-8/M-20   **38232**

MODERN TRENDS IN COMMUNICATION

Paper–EEN-402-N

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. What do you meant by 'Error" and Error detection techniques? With suitable example explain Parity Checking, Checksum and Cyclic Redundancy Check error detection techniques.   15

2. With suitable representation, explain the following :

   (i) ASK

   (ii) BPSK

   (iii) BFSK

   (iv) QPSK.   15

UNIT–II

3. What is a Satellite? Why we need it? With suitable representation, discuss on major components and explain working of a Satellite in detais.   15

4. How do we calculate the budget for satellite communication? With suitable representation discuss, how the free space path loss effects the communication.

15

UNIT–III

5. What is the principle behind fiber optic communication? Enlist its benefits and limitations. With suitable representation explain types of Fiber optics.   15

6. What is dispersion? Explain with suitable diagram. What are the effects of dispersion? Explain Material and Total dispersion.   15

UNIT–IV

7. With suitable diagram, explain the functioning of Semiconductor Laser Diode, PN Diode and PIN Diode.

15

8. Write short notes on the following :

(a) Fiber Optics Communication Block diagram.

(b) Connectors and Splices.   15