BT-5/D09

DIGITAL AND DATA COMMUNICATION (2005-06)
Paper : IT-353

Time : Three Hours]   [Maximum Marks : 100

Note : Attempt *five* questions in all, selecting at least *one* question from each unit.

UNIT–I

1. Briefly explain analog and digital transmission. Which one is preferable, and why ? Give various impairments introduced during transmission of signal.   20

2. (a) Explain different modes of data transmission.   10

   (b) Why wire in a twisted pair configuration twisted ? Also what are the advantages of optical fibre over twisted pair cable ?   10

UNIT–II

3. (a) Differentiate between serial and parallel transmission. Also explain asynchronous and synchronous transmission.   10

   (b) What is Interfacing ? Explain RS-232-C serial interface.   10

4. (a) Explain the physical connection between terminal equipment (TE) and network terminal equipment (NTE).   10

   (b) Discuss CRC. Discuss different ways by which the CRC algorithm can be described.   10

UNIT–III

5. (a) Explain HDLC and frame type supported by it.

   (b) Describe three ARQ protocols used for error control purpose. Which is better of them and why ?

   10

6. (a) Explain characteristic and carrier system of time division multiplexing. Give its drawbacks.   10

   (b) Explain different types of Multiple access protocols.

   10

UNIT–IV

7. (a) Compare FAMA and DAMA techniques.   10

   (b) Explain CDMA and TDMA.   10

8. (a) Draw block diagram of Satellite communication system and discuss its advantages.   10

   (b) Explain FH-SS and DS-SS techniques.   10

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