

Roll No.

Total No. of Pages : 2

BT5/D05

8872

Digital & Data Communications

Paper : IT-303

Time : Three Hours]

[Maximum Marks : 100

Note :— Attempt any FIVE questions.

1. (a) Explain the various classes of guided media. How do guided transmission media differ from unguided media ?
(b) What is the major advantage of shielded twisted pair over unshielded twisted pair ?
2. (a) Why is synchronization a problem in data communication ? How does the sampling rate affect the transmitted digital signal ?
(b) What is the purpose of carrier signal in modulation ? Explain the difference between Amplitude modulation and Angle modulation.
3. (a) Why is flow control needed ? Discuss various methods that control the flow of data across communication links.
(b) Discuss the use of buffer at the receiver in flow control. Also discuss the mechanism of stop-and-wait flow control.
4. (a) How are data link protocols divided into classes ? What is the basis of this division ?
(b) Describe the line configuration, transmission mode and flow of data and error control methods used by Binary Synchronous Communication (BSC).
5. (a) What do you mean by bit stuffing ? Why is it needed ?
(b) Discuss LAP-B protocol. Also describe how it is different from other protocols of the same category.

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(Contd.)

6. (a) What does the CRC generator append to the data unit ?
What is the relationship between the size of the CRC remainder and the divisor ?
- (b) What are the two types of TDM implementations and how do they differ from each other ?
7. Explain the following :—
- (a) 85C 30 serial controller.
- (b) Interfacing between DTE & DCE.
8. Write notes on following :—
- (a) CDMA .
- (b) TDMA
- (c) RS-449
- (d) HDLC.