

Subject : Data Communication & Network

Day : Saturday
Date : 04/06/2016



Time : 02.00 PM TO 05.00 PM
Max Marks : 80 Total Pages : 1

N.B:

- 1) Attempt **ANY FIVE** questions from Section-I. Each question carries **10** Marks.
 - 2) Attempt **ANY TWO** questions from Section-II. Each question carries **15** Marks.
 - 3) Figures to the right indicate **FULL** marks.
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SECTION-I

- Q.1** What is Computer Network? Explain the structure of Data Communication Network. (10)
- Q.2** Explain following terms used in computer networks: (10)
- a) Speed and bit rate
 - b) Bandwidth
 - c) Frequency
 - d) Asynchronous transmission
 - e) Point-to-point circuit
- Q.3** Differentiate between the following: (10)
- a) Circuit Switching Vs Packet Switching.
 - b) Analog Transmission Vs Digital Transmission
- Q.4** Explain concept of connection oriented and connectionless networks with appropriate examples. (10)
- Q.5** What are different IEEE LAN standards? Explain different topologies used in LAN with appropriate diagram. (10)
- Q.6** Explain IP address structure. What are different IP address classes? (10)
- Q.7** Write short note on any **TWO** of following. (10)
- a) Socket
 - b) CSMA
 - c) Transmission Control Block(TCB)

SECTION- II

- Q.8** Design a computer network for an Educational Institute located in a building. Suggest which topology is preferred for the network. (15)
- Q.9** Explain physical and data link layer of X.25 Network. (15)
- Q.10** What is purpose of Polling / Selection protocol? Explain HDLC protocol frame format. Compare HDLC with SDLC protocol. (15)

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