

Total No. of Questions – 8]

300
[Total No. of Printed Pages – 2

BE-V/12(A)

232055

COMPUTER ENGINEERING

COURSE NO. COM – 505

(**Computer Networks**)

Time Allowed: 3 Hours

Maximum Marks: 100

Note: Attempt **five questions** in all selecting at least two questions from each Section. Each question carries 20 **marks**.

Section – A

1. (a) What do you mean by Computer Network and Network Topology? Explain each with their advantages and disadvantages.
(b) Differentiate various types of Network (LAN, MAN, WAN).
(12, 8)
2. (a) Explain the RS – 232 interface standard with necessary diagram.
(b) Compare OSI and TCP/IP reference model. Discuss any two layers of OSI model in detail.
(8, 12)
3. (a) Briefly explain ALOHA and Slotted ALOHA.
(b) Discuss error correction and detection strategies.
(c) Compare various transmission media.
(6, 6, 8)

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(2)

4. (a) Discuss the sliding Window Protocol in detail.
(b) Explain the IEEE 802.3 LAN standard in detail. Draw diagram wherever necessary. (10, 10)

Section – B

5. (a) Explain at least three routing algorithm employed in the network layer for routing the packets.
(b) Discuss various aspects of Datagram and Virtual circuit. (12, 8)
6. Discuss:
(a) Transport Layer Connection Management
(b) Various Session Layer design issues. (8, 12)
7. (a) What do you understand by congestion control? Discuss various traffic shaping algorithms.
(b) Discuss the need of cryptography. Explain the process of public key cryptography used in Data Communication. (12, 8)
8. Write short note on:
(a) E-mail
(b) Internetworking
(c) Firewall. (7, 6, 7)
