

Roll No.

Total Pages : 2

BT-5/D-20

45247

COMPUTER NETWORKS

Paper-ECO-1A

Time : Three 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. (a) What is a computer network? What are the objective of computer networking? Discuss.
- (b) What is the difference between TCP/IP and OSI reference model? Discuss the functionalities of network and transport layer in OSI reference model.
2. (a) What is the difference between circuit switching and packet switching? Explain.
- (b) What is a Transmission medium? Discuss the characteristic features of fibre optic.

UNIT-II

3. (a) What are the services provided by the Data Link Layer? Discuss.
- (b) Write a note on CRC code for error detection and correction.

4. (a) What is the Random Access Protocol? Discuss ALOHA Protocol in detail.
- (b) Discuss the one-bit sliding window protocol.

UNIT-III

5. (a) What is IPv4? Discuss its header format used in Network Layer.
- (b) Explain the need of IPv6 in Network Layer.
6. (a) What are the factors causing congestion? Discuss the congestion control in TCP.
- (b) What is cryptography? What is the difference between transposition and substitution ciphers? Discuss.

UNIT-IV

7. (a) Discuss the protocols used in electronic mail.
 - (b) What is the difference between FTP and HTTP? Explain.
 8. (a) What is World Wide Web (WWW)? Describe its architecture.
 - (b) What are the design issues in Application layer? Discuss.
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