

BT-6/J07

9112

## Computer Communication Networks (2005-06)

Paper : ECE-310E

Time : Three Hours]

[Maximum Marks : 100

Note :— Attempt FIVE questions in all, selecting at least ONE question from each unit.

## UNIT—I

1. (a) Discuss the working of broadband ISDN line. 10
- (b) Give the details of ATM cell. 10
2. (a) Give the specifications of various transmission media as twisted wire, co-axial cable and fibre optics. 12
- (b) Discuss the working of communication satellites. 8

## UNIT—II

3. (a) Differentiate between circuit switching and packet switching. 10
- (b) How does the CRC checker know that the received data unit is undamaged ? 10
4. (a) What are the advantages of FDDI over a basic token ring ? 6
- (b) What is the baud rate of standard 10 Mbps 802.3 LAN ? 7
- (c) What signal to noise ratio is needed to put a  $T_1$  carrier on a 50 kHz line ? 7

## UNIT—III

5. (a) Write and explain the Leaky bucket algorithm in congestion control. 10

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(Contd.)

- (b) What do you mean by remote procedure calls ? What are its applications ? 10
6. (a) A TCP machine is sending windows of 65,535 bytes over a 1-Gbps channel that has a 10-msec one way delay. What is maximum throughput achievable ? What is the line efficiency ? 12
- (b) What is the role of session layer in ISO-OSI model ? 8

#### UNIT—IV

7. (a) Discuss the design issues related to presentation layer. 10
- (b) What do you mean by cryptography ? How it can be performed using ciphers ? 10
8. Write short notes on following :—
- (a) Virtual terminals 10
- (b) Protocols used in E-mail and working. 10