Exam. Code : 105705
Subject Code : 1472

B.Sc. Information Technology 5th Semester
COMPUTER NETWORKS
Paper–I

Time Allowed—3 Hours]   [Maximum Marks—100

Note :—Attempt any **five** questions. All questions carry
equal marks.

1. (a) What is network ? What are the advantages of
         using networks ?

    (b) What are the various layers in TCP/IP reference
         model ? Explain the need for each of them.

                                                    5,15

2. (a) Discuss Pulse Code modulation in detail.

    (b) Compare and contrast circuit, message and packet
         switching.   10,10

3. Write short notes on the following :

    (a) Client Server model

    (b) Codec

    (c) Multiplexing

    (d) Modem.   20

4. Give the comparative overview of various wired transmission media used for networks with respect to their physical characteristics, speed and performance. 20

5. (a) Explain the various design issues of data link layer in detail.

   (b) Discuss various error correction codes. 10,10

6. Discuss the concept of sliding window. Explain data link layer sliding window protocols with suitable illustration. 20

7. (a) Define Routing. Explain any two routing algorithms.

   (b) Explain any one IEEE standard 802 for LAN/ MAN. 12,8

8. Write short notes on the following :

   (a) Two commonly used network topologies

   (b) Wireless transmission

   (c) Inter-networking. 8,8,4