Total No. of Questions : 10] [Total No. of Printed Pages : 3

Roll No. .....

CS/IT–604(O)

B. E. (Sixth Semester) EXAMINATION, June, 2010

(Old Scheme)

(Common for CS & IT Engg.)

COMPUTER NETWORKING

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Internal choice in each question is provided. All questions carry equal marks.

1. (a) What is switching ? Compare circuit and packet switching. 10

   (b) What is ISDN ? Explain PRI and BRI. Explain the ISDN architecture. 10

Or

2. (a) Compare digital and analog signal with diagrams. 10

   (b) Explain the following terms : 10

   (i) Data rate

   (ii) Channel capacity

   (iii) Bandwidth

   (iv) TA and NT

3. (a) Explain the ISO-OSI reference model with a well labelled diagram. 10

P. T. O.

(b) Explain any *one* method for error detection and correction. 10

Or

4. (a) Differentiate between FDM and TDM with example. 10

(b) Explain synchronous and asynchronous transmission. 10

5. (a) Give the functions of data link layer. 10

(b) Explain sliding window protocol. What is piggybacking ? 10

Or

6. (a) Explain simplex, half duplex and full duplex communication. Give *one* example for each. 10

(b) If the bit string 01101111110011111011 is subject to bit stuffing, what is the output string ? Assume a flag pattern 01111110 for which bit stuffing is required. 5

(c) What is HDLC ? 5

7. (a) Calculate the efficiency and throughput of pure ALOHA. 10

(b) Differentiate between dynamic and static channel allocation. 10

Or

8. (a) Give the frame format of 802·3. Explain various fields in it. 10

(b) Explain persistent and non-persistent CSMA. 5

(c) What is FDDI ? 5

9. (a) Explain internetworking. What are the devices used for internetworking ? 10

(b) Explain least cost routing algorithm with example. 10

Or

10. Write short notes on any *two* of the following : 10 each

(a) Encryption/decryption

(b) Congestion control

(c) Bellman-Ford algorithm