Roll No. | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(CSE) / (IT) (2011 onwards) (Sem.–4)

COMPUTER NETWORKS-I

Subject Code : BTCS-403

Paper ID : [A1185]

Time : 3 Hrs. Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. **Write briefly :**

a) Define baud rate.

b) What is open loop congestion control?

c) Define throughput.

d) Why FTP uses two connections?

e) List the important features of LAN.

f) What is RS 232C?

g) Why twisted pair cable is twisted?

h) Define interface between layers.

i) What is fading?

j) Differentiate between pure aloha and slotted aloha.

SECTION-B

2. What are the goals of computer networks? Explain in brief.

3. Differentiate between asynchronous and synchronous TDM.

4. Explain the stop and wait ARQ mechanism.

5. A company is granted the site address 201.70.64.0. The company needs six subnets. Design the subnets.

6. What is multiplexing and de-multiplexing at transport layer? Explain in brief with example.

SECTION-C

7. What is link state routing? Explain the steps involved with an example.

8. Given the data word 1010011010 and the divisor 10111.

   a. Show the generation of the codeword at the sender site (*using binary division*)

   b. Show the checking of the codeword at the receiver site (*assume no error*).

9. What is DNS? Differentiate between recursive and iterative queries. Explain the formats of the query and response messages used in DNS.