Roll No. | | | | | | | | | | | | **Total No. of Pages : 2**

Total No. of Questions : 07

BCA (Sem.–4th)

COMPUTER NETWORKS

Subject Code : BC-401 (2007 to 2010 Batch)

Paper ID : [B0215]

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 SIX questions carrying TEN marks each and students has to attempt any FOUR questions.**

SECTION-A

a. How does laser transmission work?

b. Explain as to how error detection at the data link level is achieved.

c. What is a subnet mask used for?

d. Which fields in an IP header uniquely identify a connection (when viewed from Network)?

e. Which layer provides end-to-end connectivity from host-to-host?

f. What is the difference between simplex & half duplex?

g. What is the difference between baseband and broad band cables?

h. IP defines how many bits for representing an IP and MAC address?

i. What are the two types of transmission technology available?

j. What is the difference between communication and transmission?

SECTION-B

2. What are the various transmission media available? State advantages and disadvantages of each.

3. Explain different methods of error detection and error correction. Which method requires more number of bits and why?

4. Why is multiple access required in LAN technologies? Compare FDM, TDM and SDM in terms of their ability to handle groups of stations.

5. How are dual-ring systems used to maintain a link when a station fails? Explain this with the help of a diagram. For n devices in a network, what is the number of cable links required for a mesh, ring and star topology respectively?

6. What are three similarities and three differences between OSI and TCP reference models? UDP is a connectionless protocol. Why does it exist? Explain this.

3 bits, how many packets can be sent using

Go Back N without getting an acknowledgement? Explain your answer. Explain the factors which will determine the length of the sliding window.