Roll No. ☐☐☐☐☐☐☐☐☐☐☐   **Total No. of Pages : 02**

Total No. of Questions : 07

B.Sc.(CS) (2013 & Onwards)   (Sem.–4)
DATA COMMUNICATION AND COMPUTER NETWORKS
Subject Code : BCS-406
M.Code : 72322

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 a student has to attempt any FOUR questions.**

SECTION-A

1. **Answer briefly :**

    a) Define Computer Network. List various types of computer networks.

    b) List various merits and demerits of bus topology.

    c) What is LASER transmission?

    d) What is microwave transmission? How it is different from infrared transmission?

    e) What is broadband? What are its characteristics?

    f) Define CDMA. What is its significance?

    g) What is framing? What is its purpose?

    h) What is optimality principle?

    i) Define TDM.

    j) What is significance of frequency spectrum?

SECTION-B

2. Compare and contrast :

   a) Digital and analog transmission

   b) Synchronous and Asynchronous transmission

3. What is various wired transmission Medias? Explain their merits and demerits.

4. What is TCP/IP model? How it is different from OSI reference model? Explain.

5. What are various date link layers design issues? Explain.

6. Define Ethernet. How it is different from token bus and token ring? Explain.

7. Write notes on the following :

   a) Characteristics of SLIP and PPP

   b) Internetworking

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.