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

Total No. of Questions : 07

B.Sc.(IT) (Sem.–5th)
# COMPUTER NETWORKS
Subject Code : BS-305
Paper ID : [B0419]

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

l. **Write briefly :**

a) Define the term Multiplexing.

b) Write the advantages of Optical fiber over twisted pair and coaxial cable.

c) Explain the term SMDS.

d) How does a single bit error differ from a burst error?

e) Differentiate between Wired and Wireless Networks.

f) Expand and Explain in brief term ISDN.

g) What is the function of ARP protocol?

h) Explain the term Asynchronous Transfer Mode.

i) Explain the term Slotted ALOHA.

j) What is Time Division switching?

SECTION B

2. Write notes on the following :

   (a) Flow Control

   (b) Congestion Management   (5+5=10)

3. Explain the OSI reference model in detail.   (10)

4. Write notes on the following :

   (a) Frame Relay

   (b) SONET   (5+5=10)

5. Explain the following :

   (a) CSMA/CD

   (b) CSMA/CA   (5+5=10)

6. Explain the following :

   (a) Transparent Bridges

   (b) Spanning Tree Algorithm   (5+5=10)

7. What is IP addressing? Explain different classes of IP addresses and Structure of IP Packets in detail.   (10)