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

Total No. of Questions : 09

B.Tech. (CSE) (Sem.–5)
COMPUTER   NETWORKS
Subject Code : CS-303
Paper ID : [A0465]

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 has to attempt any FOUR questions.**
3.   **SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.**

SECTION-A

l. Write briefly :

a)   What do you mean by Computer Networks?

b)   What is difference between data transmission speed and propagation speed?

c)   What is the significance of twisting in twisted-pair cable?

d)   What do you mean by Latency and Jitter?

e)   What is use of constellation diagram in analog transmission?

f)   What is difference between FDM and TDM?

g)   What are benefits of spread spectrum?

h)   What is X.21?

i)   What is a burst error?

j)   What is advantage of using layered architecture in Network reference models?

SECTION-B

2. Briefly discuss the significant impairments in a communication system. (5)

3. Explain various types of scrambling techniques available. (5)

4. Bring out the differences between Circuit switching and Packet switching. (5)

5. Write a note on CDMA technology. (5)

6. Write short notes on :

   a) Cable Modem   2½

   b) DTE   2½

SECTION-C

7. Write a detailed note on types of Guided and Un-guided transmission media giving their merits and demerits. (10)

8. a) How do you detect data transmission errors using CRC? (5)

   b) What is Hamming Code? (5)

9. Give an overview of OSI and TCP/IP reference models. Also discuss similarities and dissimilarities between these two models. (10)