

Roll No.

Total No. of Questions : 09]

[Total No. of Pages : 02

B.Tech. (Sem. - 5th)
COMPUTER NETWORKS
SUBJECT CODE : CS - 303
Paper ID : [A0465]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

Section - A

Q1)

(10 × 2 = 20)

- a) List various types of transmission medias.
- b) What do you understand by bit rate?
- c) How is baud rate related to transmission bandwidth in ASK & FSK?
- d) What do you understand by Shannon capacity?
- e) What are two types of switches used in circuit switching?
- f) What do you understand by spread spectrum?
- g) Discuss the concept of redundancy in error detection.
- h) Compare datagram and virtual circuits.
- i) List two layers where flow control is performed.
- j) What is a protocol?

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P.T.O.

Section - B

(4 × 5 = 20)

- Q2)** List and explain the function of different types of modems?
- Q3)** If a bit rate of a signal is 100 bps, how many bits can be sent in 5 s? How many bits in 1/5 s? How many bits in 100 ms?
- Q4)** Explain the concept of spread spectrum? Explain the working of code division multiple access.
- Q5)** Compare the working of Circuit switching, Packet switching and message switching?
- Q6)** List and explain briefly different types of modulation techniques available?

Section - C

(2 × 10 = 20)

- Q7)** (a) Compare X.21 & EIA-530 structures.
(b) List and explain various types of transmission impairments?
- Q8)** Explain in detail with the help of suitable example different error detection and correction techniques?
- Q9)** Explain briefly the functioning of different layers of OSI-ISO reference model? Also compare it with TCP/IP protocol architecture?

