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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?

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?

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