

Roll No.

Total No. of Questions : 09]

[Total No. of Pages : 02

Paper ID [A0465]

(Please fill this Paper ID in OMR Sheet)

B.Tech. (Sem. - 5th)

COMPUTER NETWORK (CS - 303)

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 x 2 = 20)

- a) What are the advantages of a multipoint connection over a point to point connection?
- b) Explain the responsibilities of the data link layer?
- c) What is the spectrum of a signal?
- d) Contrast an analog signal with a digital signal?
- e) Explain the purpose of guard band?
- f) Describe the DS hierarchy?
- g) Explain about circuit switch and folded switch?
- h) Explain the three types of redundancy checks used in data communication?
- i) Explain the purpose of a carrier signal in modulation?
- j) How does check sum checker know that the received data unit is undamaged?

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P.T.O.

Section - B

(4 x 5 = 20)

- Q2) Why is frequency modulation superior to amplitude modulation?
- Q3) Explain the methods that convert a digital signal to an analog signal?
- Q4) Explain the modulation technique used by ADSL technology?
- Q5) Explain the purpose of hamming code? How can we use the hamming code to correct a single error?
- Q6) Explain the function of DTE and DCE? Give an example of each?

Section - C

(2 x 10 = 20)

- Q7) How is X.21 able to eliminate most of the control circuit of the EIA standards?
- Q8) (a) Explain the advantages of optical fiber over twisted - pair and coaxial cable?
(b) Explain the three types of transmission impairment?
- Q9) Explain the difference about TCP/IP and OSI reference mode?

