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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?

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?