

Total No. of Questions : 09]

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B.Tech. (Sem. - 4th)
DATA COMMUNICATION
SUBJECT CODE : CS - 206
Paper ID : [A0460]

[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 x 2 = 20)

- a) List different topologies available for networking?
- b) What is the advantage of layered architecture?
- c) What is the use of modulation?
- d) Differentiate between LAN and WAN.
- e) Name various operations of Data link layer.
- f) What do you understand by term protocol?
- g) What do you mean by packet switched network?
- h) What is flow control?
- i) What do you mean by Network reliability?
- j) Define the term congestion.

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Section - B

(4 x 5 = 20)

- Q2)** Describe in brief the working of different layers of TCP/IP model.
- Q3)** Explain briefly different error detection and correction methods. Construct the Hamming code for the bit sequence 10011101.
- Q4)** Explain the functioning of Go back by n protocol.
- Q5)** Explain briefly how the network security is taken care of in application layer?
- Q6)** List and explain different digital-to-analog conversion methods.

Section - C

(2 x 10 = 20)

- Q7)** Explain in detail the different fields of IP header format? Also give the detail of IP addresses?
- Q8)** (a) Explain in detail the design issues of Transport layer protocols.
(b) Describe in brief the terms : DNS, World Wide Web, E-mail.
- Q9)** Write short notes on :
(a) Routing Algorithms.
(b) Congestion control algorithms.

