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II Semester M.C.A. Degree Examination, December - 2022

COMPUTER SCIENCE

Computer Networks

(CBCS Scheme Y2K20 2020-21)

Paper : 2 MCA 3

Time : 3 Hours

Maximum Marks : 70

Instructions to Candidates:

Answer all the Parts.

PART - A

Answer any FIVE questions. Each question carries 6 marks.

(5×6=30)

1. Explain the causes for transmission impairment in a communication channel.
2. How many bits can fit on a link with 2ms delay, if the bandwidth of the link is:
 - a) 1Mbps
 - b) 10 Mbps
 - c) 100 Mbps
3. Explain connection-oriented approach of packet switching.
4. Explain IPv4 Datagram packet.
5. Explain the Go-Back-N.
6. Explain datagram network with suitable diagram.
7. List and explain four types of delays in Packet-Switched networks.
8. Write short note on congestion Control and Flow Control in TCP.



PART - B

Answer any FOUR questions. Each question carries 10 marks.

(4×10=40)

9. Differentiate between pure Aloha and slotted Aloha.
10. Explain the layers of the TCP/IP Protocol suite and identify the protocols in each layer.
11. Discuss the Address Resolution Protocol operation and the ARP Packet format with suitable diagram.
12. Explain the salient features of:
 - a) Stop - and -Wait Protocol; (5)
 - b) Stop - and -Wait ARQ Protocol. (5)
13. Explain the operation of CSMA/CD. What happens when a station detects collision?
14. What is the purpose of DNS? Explain the six steps for mapping host name to IP address.