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Total No. of Pages: 02
Total No. of Questions: 09

MCA (Sem.-2nd)
DATA COMMUNICATION & NETWORKS
Subject Code: MCA-204
Paper ID: [B0136]

Time: 3 Hrs.

Max. Marks: 100

INSTRUCTIONS TO CANDIDATE:

- 1. Candidates are required to attempt one question from each section A, B, C, D.*
- 2. Section E is compulsory.*

SECTION-A

- Q1. What is multiplexing? Discuss its need? Explain various multiplexing techniques with their merits and demerits? (20)
- Q2. What is OSI model? Discuss. Explain how OSI model is different from TCP/IP model? (20)

SECTION-B

- Q3. Explain the following:
(a) Wireless LAN Protocols (10)
(b) CSMA Protocols (10)
- Q4. What is framing? What is its need? Discuss different methods of error and flow control. (20)

SECTION-C

- Q5. Discuss various routing algorithms with their merits and demerits. (20)
- Q6. What is network trouble shooting? Explain different commands tools used for network trouble shooting. (20)
- Q7. What is an application layer? Explain the role of application layer in computer network. (20)
- Q8. Differentiate the following:-
(a) HTTP and HTTPS (10)
(b) UDP and TCP (10)

SECTION-E

(10x2=20)

- Q9. a) List various components of data communication.
- b) What is meant by modulation?
- c) List various benefits of ISDN?
- d) List various merits and demerits of fiber optics.
- e) What is token ring?
- f) List various design issues of network layer?
- g) What is RARP? How it is different from ARP?
- h) What is need of domain name system?
- i) List various features of WWW?
- j) What is use of leaky bucket algorithm?

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