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Total No. of Pages: 02

Total No. of Questions: 09

MCA (2015 & Onwards) (Sem. – 2)
DATA COMMUNICATION AND NETWORKS

M Code: 72879

Subject Code: MCA-204

Paper ID: [72879]

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks and students has to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.

SECTION A

1. Explain the functions of various layers of TCP/IP reference model.
2. What is multiplexing? Why do we need it? Explain the various multiplexing methods in brief.

SECTION B

3. Explain the meaning of various fields of the frame format of IEEE 802.3.
4. Discuss the design issues of data link layer.

SECTION C

5. Explain the leaky bucket algorithm with example and compare it with token bucket algorithm.
6. Explain the meaning of various fields of IPv4 protocol header.

SECTION D

7. Discuss the buffering and addressing issues in transport layer with examples.
8. Explain the working principle of FTP protocol.

SECTION E

9. Write briefly:
- a) What is signal distortion?
 - b) List two important properties of LAN.
 - c) What is Internetwork?
 - d) What is LEO?
 - e) List two important services provided by data link layer.
 - f) What is flow control?
 - g) Define load shedding.
 - h) List two important properties of UDP.
 - i) What is DNS?
 - j) What is the purpose of RARP?