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Total No. of Pages : 02

Total No. of Questions : 09

MCA (2014 Batch) (Sem.-2)
DATA COMMUNICATION AND NETWORKS
Subject Code : MCA-204
M.Code : 26055

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. SECTIONS-A, B, C & D contains TWO questions each carrying TWENTY marks each 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

- Q1 a) Discuss different switching techniques of data communication.
b) What are wireless networks? Explain the concept of Internetworks.
- Q2 Write a short notes on the following :
- a) Twisted pair
 - b) Transport layer of OSI
 - c) ATM
 - d) Satellite Communication

SECTION-B

- Q3 a) What is meant by error control? Why is it required? Explain.
b) Discuss the services offered by IEEE 802.4 and IEEE 802.5 standards.
- Q4 What are limited contention protocols? Discuss wireless LAN in detail.



SECTION-C

- Q5 a) Differentiate Hierarchical and shortest path routing.
b) What is meant by IP protocol? Explain its working in detail.
- Q6 Explain the following :
- a) ARP
 - b) Token Bucket Algorithm
 - c) Traceroute
 - d) Ping

SECTION-D

- Q7 a) Discuss the concept of flow control at transport layer.
b) Discuss the working of UDP protocol in detail.
- Q8 Explain the following by taking suitable example :
- a) Email
 - b) HTTP and HTTPS

SECTION-E

- Q9 Write briefly :
- a) What is World Wide Web?
 - b) Name the different layers of TCP/IP model.
 - c) Discuss briefly about fiber optics communication.
 - d) Why is logical link layer required?
 - e) Comment on "channel allocation".
 - f) Describe the services offered by MAC layer.
 - g) Enlist any two issues of Flooding algorithm.
 - h) How is troubleshoot provided by netstat?
 - i) Discuss two features of TCP.
 - j) Name any two protocols at Application layer of TCP/IP model.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.