

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2123)

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MCA 2nd Semester Examination

Computer Networks

MCA-205

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all, selecting one question from the sections A, B, C and D. Section E is compulsory.

SECTION - A

1. Discuss the functions of major layers of OSI reference model in detail. (12)
2. What is meant by cryptography? Compare symmetric and asymmetric key algorithms (12)

SECTION - B

3. Discuss the following protocols of Data Link Layer
 - (a) CSMA/CD
 - (b) Stop and Wait protocol (12)
4. Describe the following IEEE standards:
 - (a) IEEE 802.3
 - (b) IEEE 802.4 (12)

SECTION - C

5. Discuss the Hierarchical routing and Broadcast routing algorithm in detail. (12)

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6. Explain the working of Mobile IP and IPV6 protocols for addressing issues of networks. (12)

SECTION - D

7. Explain the following application layer service protocols:
- (a) TELNET
 - (b) HTTP (12)
8. Discuss the major commands and procedure for configuration of networks using LINUX. (12)

SECTION - E

9. (a) What is meant by RSA?
(b) List the use of ATM.
(c) How the firewall is useful?
(d) List the major types of networking errors.
(e) What is meant by PPP protocol?
(f) What is maximum data rate of a channel?
(g) Define the term Virtual Circuits.
(h) List the Congestion Control Algorithms,
(i) Discuss the concept of RPC.
(j) List the role of SMTP
(k) What is meant by POP3?
(l) How PING command works? (1×12=12)