

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 1224

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

M.C.A.**(Semester II) Even Semester Theory Examination, 2012-13****COMPUTER NETWORKS****Time : 3 Hours]****[Total Marks : 100****Note :** Attempt questions from each Section as per instructions.**Section-A**Attempt *all* parts of this question. Each part carries 2 marks.

2×10=20

1. (a) What is Point to Point networks?
- (b) List the layers of the Internet Model.
- (c) What is Bandwidth?
- (d) What is IEEE 802.11 standard?
- (e) What is unicast routing and congestion?
- (f) Compare and contrast MAC address with IP address.
- (g) Define Hub.
- (h) What is an IP Address?
- (i) What is the use of HTTP?
- (j) What is Hamming Code and SMTP?

Section-BAttempt any *three* parts of this question. Each part carries 10 marks.

10×3=30

2. (a) What is meant by the topology of a network? Compare LAN, WAN and MAN characteristics.
- (b) (i) What are the Channel characteristics?
- (ii) What are the IEEE LAN standards?
- (c) (i) Explain TCP/IP protocol suite.
- (ii) What is Digital Signature?
- (d) Explain the functions of transport protocol of ISO-OSI reference model of network.

- (e) What is public key encryption method? Compare this with private key cryptography. Explain RSA algorithm with suitable example.

Section-C

Attempt *all* questions of this Section. Each question carries 10 marks. $5 \times 2 \times 5 = 50$

3. Attempt any *two* parts :

- (a) Explain O.S.I. Reference Model.
- (b) Explain the Goals and Application of Network?
- (c) Explain Service Access Point.

4. Attempt any *two* parts :

- (a) Explain Transmission of Analog Signal.
- (b) What are the basic elements of communications?
- (c) What are the various sources of impairments?

5. Attempt any *two* parts :

- (a) What is error control technique?
- (b) Define medium access control technique.
- (c) What is message and packet switching?

6. Attempt any *two* parts :

- (a) What is IP addressing and subnetting?
- (b) Explain ICMP in detail.
- (c) Define Routing and congestion.

7. Attempt any *two* parts :

- (a) Define Cryptography.
- (b) Discuss Symmetric-Key Algorithm with examples.
- (c) What is firewall and their uses?