63/2 (SEM-5) MCA 5.1

2021

(held in 2022)

MCA

(Theory Paper)

Paper Code : MCA-5.1

(Computer Network)

Full Marks – 75

Time – Three hours

The figures in the margin indicate full marks
for the questions.

1. Answer questions from the following : 1×5=5

   (a) What is cipher text ?

   (b) What do you mean by Classes of Network ?

   (c) What is the difference between the ipconfig
   and the ifconfig ?

   (d) Which one of the algorithm is not used in
   asymmetric-key cryptography ?

   (e) Connection establishment in TCP is done by
   which mechanism ?

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(f) Mention the difference between IPv4 and IPv6.

2. Answer any *four* questions from the following :

3×4=12

(a) Discuss the different types of transmission medium.

(b) Mention the different fields of IP Datagram.

(c) What exactly are encryption and decryption ?

(d) What is the difference between gateway and firewall ?

(e) Discuss how the router of the network work.

(f) What kinds of threats exist for a cryptographic system ?

3. Answer any *five* questions from the following :

4×5=20

(a) Discuss the Circuit Switching with diagram.

(b) How UDP is different from TCP ?

(c) What is a network attack ? Discuss the different types of network attacks.

(d) Discuss the architecture of email.

(e) Discuss the remote procedure call.

(f) What are the key differences between asymmetric and symmetric cryptography ?

4. Answer any *three* questions from the following :

10×3=30

(a) How fibre optics works ? Discuss the different types of it.

(b) Discuss how hierarchical routing works with proper example and diagram.

(c) Discuss the layers of OSI Reference Model.

(d) Discuss the sliding window protocol.

(e) Discuss the distance vector routing.

5. Write short notes on any *two* :   4×2=8

(a) Cryptography

(b) Ad Hock Network

(c) ICP

(d) X.25.