

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, APRIL – 2024**

COMPUTER NETWORKS

[Maximum Marks : 100]

[Time : 3 hours]

PART – A
(Maximum Marks : 10)

Marks

I. Answer **all** questions in one or two sentences. Each question carries 2 marks.

1. Define Topology.
2. Name any two routing algorithms.
3. Define user datagram.
4. Name any two application layer protocols.
5. Define socket address.

(5x2=10)

PART – B
(Maximum Marks : 30)

II. Answer any **five** of the following questions. Each question carries 6 marks.

1. Summarise the implementations of standard Ethernet.
2. List the characteristics of wireless LAN that makes it differ from wired LAN.
3. Explain classful addressing.
4. Define unicast, multicast and broadcast transmission.
5. Outline the features of SCTP.
6. The content of a UDP header in hexadecimal format is CB84000D001C001C.
Write the source port number and destination port number.
7. Explain Dynamic DNS.

(5x6=30)

PART – C

(Maximum Marks : 60)

(Answer **one full** question from each unit. Each full question carries 15 marks)

UNIT – I

- III.** (a) Explain the architecture of IEEE 802.11. (8)
(b) Describe briefly on any two LAN connecting devices. (7)

OR

- IV.** (a) Define virtual LAN. Write the ways in which stations are configured in virtual LAN. (8)
(b) Compare any two network topologies. (7)

UNIT – II

- V.** (a) Explain any two services of network layer. (8)
(b) Write short note on DHCP. (7)

OR

- VI.** (a) Describe briefly on Distance vector routing. (8)
(b) Describe the factors that affect the performance of network layer. (7)

UNIT –III

- VII.** (a) Explain connection establishment in TCP. (8)
(b) Explain SCTP services. (7)

OR

- VIII.** (a) Describe briefly on TCP services. (8)
(b) List various applications of UDP. (7)

UNIT – IV

- IX.** (a) Describe briefly on SMTP. (8)
(b) Explain the message format of HTTP. (7)

OR

- X.** (a) Explain DNS in the Internet. (8)
(b) Describe briefly on FTP. (7)
