

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

COMPUTER NETWORKS

[Maximum Marks: **100**]

[Time: **3 Hours**]

PART-A

[Maximum Marks: **10**]

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

1. List any two networking criteria.
2. Define routing.
3. List any two features of SCTP.
4. State the function of port number.
5. Define WWW.

(5 x 2 = 10)

PART-B

[Maximum Marks: **30**]

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

1. Explain different types of computer networks.
2. Describes different types of VLAN memberships.
3. Explain subnetting and supernetting.
4. Discuss Link state routing algorithms.
5. What is user datagram and explain its packet format?
6. Illustrate the message format of DNS
7. Explain URL.

(5 x 6 = 30)

PART-C

[Maximum Marks: **60**]

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

UNIT – I

- III. a. Explain WLAN architecture. (8)
- b. Describes different addresses used in TCP/IP layers. (7)

OR

- IV. a. Explain networking topologies. (8)
- b. Explain IEEE 802 project. (7)

UNIT – II

- V. a. Explain Internet Protocol. (8)
- b. Describes path vector routing protocol. (7)

OR

- VI. a. Explain classless IP addressing with example. (8)
- b. Describes any four network layer services. (7)

UNIT- III

- VII. a. What is TCP and explain the segment format of TCP. (8)
- b. Explain stop and wait protocol. (7)

OR

- VIII. a. Explain UDP. (8)
- b. Explain Go back - N protocol (7)

UNIT - IV

- IX. a. Explain mail transfer phases of e-mail. (8)
- b. Explain HTTP persistent connection. (7)

OR

- X. a. Explain FTP. (8)
- b. Explain SMTP, POP and IMAP. (7)
