

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, APRIL-2022**

COMPUTER NETWORK

[Maximum marks: 100]

(Time: 3 Hours)

PART – A

Maximum marks : 10

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

1. Define computer network.
2. List different addressing layers of TCP/IP.
3. Differentiate unicasting multicasting.
4. List network layer services.
5. Name two protocol used in email. (5 x 2 = 10)

PART – B

Maximum marks : 30

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

1. Explain star and bus topology.
2. Explain wired LAN.
3. Describe IPV4 datagram.
4. Explain subnetting.
5. Write notes on TCP services.
6. Explain any one noisy channel protocol.
7. Draw and explain 4th generation email architecture (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 TCP/IP protocol suite with suitable diagram. (9)
- (b) Give a brief description of IEEE standard. (6)

OR

- IV.(a) Explain the architecture of IEEE 802.11. (9)
(b) Explain VLAN with suitable diagram. (6)

UNIT-II

- V. (a) Explain classful addressing of IPV4. (9)
(b) Illustrate different network layer performance. (6)

OR

- VI. (a) Explain path vector routing algorithm. (9)
(b) Briefly describe about DHCP. (6)

UNIT-III

- VII. (a) Explain TCP segment. (9)
(b) Explain TCP connection and TCP termination. (6)

OR

- VIII.(a) Describe Stream Control Transmission Protocol. (9)
(b) Explain User Datagram Protocol. (6)

UNIT-IV

- IX. Write short notes on (i) HTTP (ii) POP3 (iii) FTP (iv) MIME (15)

OR

- X. Explain Domain Name System. (15)
