(5×6 = 30)

N19 - A0111

Reg. No.....

Signature .....

## DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2019

#### **COMPUTER NETWORKS**

[Time: 3 hours

Marks

(Maximum marks : 100)

PART — A

#### (Maximum marks : 10)

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

- 1. Define topology of network.
- 2. What is routing ?
- 3. Mention the purpose of SCTP.
- 4. List any two transport layer protocols.
- 5. Define SMTP.

#### PART — B

#### (Maximum marks : 30)

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

- 1. Define Virtual LAN and State its advantages.
- 2. Explain Standard Ethernet and Fast Ethernet.
- 3. Describe distance-vector routing algorithm.
- 4. Describe IPv4 address.
- 5. Describe Port numbers of Transport Layer.
- 6. Explain the URL.
- 7. Compare POP and IMAP.

 $(5 \times 2 = 10)$ 

ORKS

TED (15) - 6131 (REVISION - 2015)

I

# PART — C

Marks

8

7

2

### (Maximum marks : 60)

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

|      |                  | · · · · · · · · · · · · · · · · · · ·  |     |
|------|------------------|--|-----|
|      |                  | Unit — I   |     |
| III  | (a)              | Explain the Layers in the TCP/IP Protocol Suite with diagram.                                    | 8   |
|      | (b)              | Explain about the Connecting devices that can operate in different layers of the Internet model. | 7   |
|      |                  | Or   |     |
| IV   | Cor              | npare the architecture of wired and wireless LANs.   | 15  |
|      |                  | Unit — II  |     |
| V    | (a)              | Explain Internet Protocol.   | 7   |
|      | (b)              | Describe Class full Addressing of IPV4   | 8   |
|      |                  | Or .   |     |
| VI   | (a)              | Describe the methods used to measure the performance of a network.                               | 9   |
|      | <sup>.</sup> (b) | Explain how we can improve the performance of a network.   | 6   |
|      |                  | Unit — III   |     |
| VII  | (a)              | Explain User Datagram Protocols and its applications.  | 9   |
|      | (b)              | Explain flow control in Transport Layer.   | 6   |
|      |                  | Or   | -   |
| VIII | (a)              | Describe the services offered by TCP to the processes at the application layer.                  | . 6 |
|      | (b)              | Explain stop and wait protocol with diagram.   | 9   |
|      |                  | Unit — IV  |     |
| IX   | (a)              | What is electronic mail ? Describe the process of transferring mail messages.                    | 7   |
|      | (b)              | Explain about the FTP protocol.  | 8   |
|      |                  |  |     |

OR

(a) Explain about the architecture of WWW. Х

56 CT

(b) Describe the purpose of the DNS with diagram.