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(REVISION — 2015)

Reg. No..

Signature ....

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

COMPUTER NETWORKS

[*Time* : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I   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. $(5 \times 2 = 10)$

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. $(5 \times 6 = 30)$

Marks

PART — C

(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   Compare 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

     (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

X   (a)   Explain about the architecture of WWW.   8

     (b)   Describe the purpose of the DNS with diagram.   7