

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2017

**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. Mention the purpose of NIC.
2. Difference between switch and bridge.
3. Define RIP.
4. Define socket address.
5. Give the full form of MIME.

(5 × 2 = 10)

PART — B

(Maximum marks : 30)

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

1. Difference between unicast, multicast and broadcast address.
2. Explain virtual LAN.
3. Explain DHCP.
4. Explain subnetting.
5. Difference between TCP and UDP.
6. Explain the different transmission modes of FTP.
7. Difference between primary and secondary DNS servers.

(5 × 6 = 30)

## PART --- C

Marks

(Maximum marks : 60)

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

## UNIT --- I

- III (a) Explain wired LAN. 8  
 (b) Explain the different levels of addresses used in TCP/IP Model. 7

OR

- IV (a) Explain wireless LAN. 7  
 (b) Explain the different network topologies. 8

## UNIT --- II

- V (a) Compare distance vector and path vector routing. 10  
 (b) Explain the function of a router. 5

OR

- VI (a) Describe the functions of different protocols of network layer. 10  
 (b) Explain the different classes of IPv4 address. 5

## UNIT --- III

- VII (a) Explain the services offered by TCP. 8  
 (b) Explain how the error control is done by TCP. 7

OR

- VIII (a) What are the services offered by SCTP ? 8  
 (b) Explain congestion control in transport layer. 7

## UNIT --- IV

- IX (a) Explain the architecture of electronic mail. 8  
 (b) Describe Telnet. 7

OR

- X (a) Write notes on FTP. 8  
 (b) Explain briefly about HTTP. 7