TED (15) – 6131 Reg. No. .....

(REVISION — 2015) Signature .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2018

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 computer network.
2. List the functions of proxy server.
3. Name any two closed loop congestion control mechanisms.
4. Define piggybacking.
5. List any two application layer protocols.

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Briefly explain any two networking topologies.
2. Differentiate between multicast and broadcast addresses.
3. Briefly explain any two network layer services.
4. Explain subnetting in classless addressing.
5. Briefly explain the Stop-and-Wait protocol.
6. Explain the connection termination in TCP.
7. Explain the Hyper Text Transfer Protocol.

(5×6 = 30)

Marks

PART — C

(Maximum marks : 60)

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

UNIT — I

III (a) List and explain the common Standard Ethernet implementations. 9

(b) Explain the addressing used in various layers of the TCP/IP protocol suite. 6

OR

IV (a) Explain the architecture of IEEE 802.11 Wireless LAN. 9

(b) Describe any two different types of membership in Virtual LAN. 6

UNIT — II

V (a) Write down the DHCP message format. Explain each field. 9

(b) Explain the classful addressing of IPv4. 6

OR

VI (a) Explain the path - vector routing algorithm. 9

(b) Briefly describe the various security issues of IP protocol. 6

UNIT — III

VII (a) Explain the encapsulation and decapsulation at the Transport layer. 6

(b) Explain the Selective Repeat Protocol. 9

OR

VIII (a) Compare and contrast TCP and UDP. 6

(b) Write down the format of TCP segment. 9

UNIT — IV

IX (a) Explain the File Transfer Protocol. 8

(b) Write down the DNS message format. 7

OR

X (a) Explain the architecture of Electronic mail. 8

(b) Explain the name - address resolution in DNS. 7

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