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COMPUTER TECHNIQUE

(Vocational Stream)

(Computer Network)

(Theory)

Paper : V

Full Marks : 100

Time : 3 hours

The figures in the margin indicate full marks for the questions

General Instructions :

 (i) Write all the answers in the Answer Script.

 (ii) Attempt Part—A (Objective Questions) serially.

(iii) Attempt all parts of a question together at one place.

(PART : A—OBJECTIVE)

(*Marks* : 50)

1. Fill in the blanks from the list of words/phrases given below : 1×20=20

 (a) A computer network that spans a relatively large geographical area is called _____.

 (b) In a network, a machine is identified by unique address called _____.

(c) The physical address assigned by NIC manufacturer is called ____.

(d) Wireless networks use an access method called ____.

(e) In ____ network, each computer on a network is equal.

(f) A ____ is responsible for making the networking tasks happen.

(g) A ____ refers to a pre-decided set of rules using which all parties of a network connect and interact with one another.

(h) A ____ computer is a host computer that requests for some services from a server.

(i) ____ waves are used to transmit television and radio program.

(j) ____ communication uses the synchronous satellite to relay the radio signal transmitted for ground station.

(k) In ____ topology, each node is connected to two and only two neighbouring nodes.

(l) ____ hubs allow the signal to pass from one computer to another without any change.

(m) A ____ is a network device that connects dissimilar networks.

(n) ____ is a network of physical objects embedded with electronics, softwares, sensor and network connectivity.

(o) The _____ is the protocol used to make hypertext document readable on the WWW.

(p) The table maintained by router for routing purposes, is called _____ table.

(q) _____ checks if a computer is connected to a network or not.

(r) A network device that checks the address of the message received and sends it to the appropriate computer is called a _____.

(s) _____ network is owned and operated by a corporation or government.

(t) A computer that connects to the Internet is called a _____.

List of Words / Phrases

MAN	Internet	Network	Active
Protocol	Satellite	Radio	HTTP
CSMA/CA	WAN	Server	MAC
Gateway	Peer-to-Peer	Passive	Ring
PING	IoT	IP address	Routing
HTML	MAN	Client	CSMA/CD

2. State whether the following statements are *True* or *False* :

1×10=10

(a) A computer is identified by 64-bit IP address.

(b) A client is the computer that asks for the action in a network.

(c) MAC address is a 48-bit address.

(d) PAN is the smallest network geographically.

(e) The bus topology is the simplest topology.

(f) Single mode and multimode are two types of coaxial cable.

(g) GTP and STP are two types of fiber-optic cable.

(h) A network having a dedicated server is known as master/slave network.

(i) Every object on the Internet has a unique URL.

(j) Thicknet and Thinnet are two types of coaxial cables.

3. Choose and write the correct answer :   1×5=5

(a) In peer-to-peer network, each computer in a network is referred to as

    (i) Server

    (ii) Client

    (iii) Peer

    (iv) Sender

(b) Which of the following networks is LEAST likely to be a WAN?

    (i) The Internet

    (ii) A school network

    (iii) A network of ATM

    (iv) A network of lab computers of attesting lab

(c) A local telephone network is an example of a ____ network.

    (i) packet switched

    (ii) circuit switched

    (iii) message switched

    (iv) All of the above

(d) Which transmission media is capable of having a much higher bandwidth (data capacity)?

   (i) Co-axial

  (ii) Twisted pair cable

 (iii) Untwisted pair

 (iv) Fiber optic

(e) Which of these components is internal to computer and is required to connect the computer to a network?

   (i) Wireless Access Point

  (ii) Network Interface Card

 (iii) Switch

 (iv) Hub

4. Write short notes on the following in not more than *4* to *5* sentences each (any *five*) :   3×5=15

(a) Switch

(b) Repeater

(c) Web Browser

(d) HTTP

(e) PPP

(f) Multiuser OS

(g) Host

(h) CAT5 Cable

(6)

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

Answer any *two* questions from each Section

SECTION—I

(Network Technologies)

5. *(a)* What are the types of network by component role? Explain.   6

    (b) Write the advantage of wireless network.   3

6. *(a)* What is a Ring topology? Explain.   4

    (b) What are the functions of a router? Explain.   5

7. Write short notes on the following (any *two*) :   4½×2=9

    (a) Unguided media

    (b) Fiber optic

    (c) File server

8. Write short notes on the following :   4½+4½=9

    (a) Web server

    (b) Remote login

(**7**)

SECTION—II

(**Network Environment**)

9. *(a)* What is a CSMA/CD? Explain its functions.   5

   (b) What is file transfer protocol (FTP)? Explain.   4

10. *(a)* What are the differences between IPv4 address and IPv6 address? Explain.   6

   (b) What is IP address? Explain its types.   3

11. *(a)* What is a URL? Explain.   5

   (b) What is a DNS? Explain.   4

12. *(a)* What is IMAP? Which part of Internet it handles? Explain.   6

   (b) What is an E-mail? Explain.   3

(**8**)

SECTION—III

(**Network Application**)

13. Write short notes on the following :   3½+3½=7

    (a) Gopher

    (b) V-SAT

14. *(a)* What is a collision in a network?   3½

    (b) What is Archie? Explain.   3½

15. *(a)* Write a short note on POP.   4

    (b) What is a talk in network? Explain in brief.   3

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