HS/XII/V/CT/Paper–V/21

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COMPUTER TECHNIQUE

(Vocational Stream)

(Computer Network)

(Theory)

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 at the end :   1×20=20

  (a) A _____ is a set of rules that governs the communications between computers on a network.

  (b) A _____ is a network that confines to a relatively small area.

                                        [P.T.O.

(2)

(c) The Internet is an example of _____.

(d) The Netscape Navigator is a popular _____.

(e) Every machine in a network has a unique _____.

(f) The data in network travels in the form of a _____.

(g) We can amplify the signal using _____.

(h) A _____ is a device that allows us to segment a large network into two smaller more efficient networks.

(i) A _____ is a device that connects dissimilar networks.

(j) Mobility is one of the advantages of _____ LAN.

(k) _____ waves are widely used for short-range communication.

(l) _____ is/are computer program(s) written by devious programmers and designed to replicate themselves and infect computers when triggered by a specific event.

(m) _____ is a term used by some to mean 'a clever programmer'.

(n) _____ are text file with small pices of data that are used to identify user computer on network.

(o) A _____ topology is designed with each node connected directly to a central network hub or concentrator.

(p) A _____ is a set of rules that governs the communications between computers on a network.

(q) _____ is a hardware device that establishes connections of computing devices on wireless LAN with a fixed wired network.

(r) _____ is a term used to describe the legal issues related to use of communication technology particularly the Internet.

(s) _____ is a device that modulates an analog signal to digital and also demodulates an analog signal to digital and also demodulates a digital signal to analog.

(t) The _____ provides the physical connection between the network and the computer workstation.

List of phrases/words :

Tree	WAP	packet	bridge
WAN	NIC	gateway	Hacker
Virus	IP address	Modem	Router
Cyber law	star	TCP/IP	Infrared
Topology	Cookies	protocol	MAN
repeater	host	LAN	browser
wireless	MAC	node	server

2. State whether the following statements are *True* or *False* : 1×10=10

(a) All modems are not direct-connect devices.

(b) Optical fibers provide a very large bandwidth data link.

(c) A dedicated server function only as a server and is not used as a client or workstation.

(d) A dial-up connection is more reliable than a direct connection.

(e) It is possible for two users to have the same e-mail address.

(f) Bus topology shares a single channel on which all stations can receive and transmit data.

(g) An octet is an 8-bit binary number.

(h) A hub is used to boost the signal strength as it passes along a cable.

(i) In HTML, <BR> is an example of container tag.

(j) Wireless media are called guided media.

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

(a) Computer on Internet must

  (i) be of the same type

  (ii) be able to connect to one Internet server for the country

  (iii) connect to a coaxial cable connector

  (iv) use of same protocol

[Contd.

(b) We can connect to the Internet through

  (i) direct access

  (ii) dial-up IP

  (iii) a connected LAN

  (iv) All of the above

(c) Which of the following topologies is least affected by removal/addition of workstations?

  (i) Ring

  (ii) Star

  (iii) Bus

  (iv) None of the above

(d) Which type of network should be installed to connect a small number of computers in the office building?

  (i) LAN

  (ii) WAN

  (iii) MAN

  (iv) None of the above

(e) Which of the following is a communication device?

  (i) ROM

  (ii) Hub

  (iii) Registers

  (iv) SMPS

       [P.T.O.

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

(a) Server

(b) URL's

(c) LAN

(d) WWW

(e) Tree topology

(f) EDI

(g) Booting

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

Answer any **two** questions from each Section

SECTION—I

(Network Technologies)

5. *(a)* What are the different types of network? Explain.

(b) What are the advantages of wireless network? Explain.   4+5=9

6. *(a)* What is a ring topology? Explain with diagram.

(b) What are analog and digital transmissions?   5+4=9

(**7**)

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

    (a) Guided media

    (b) Fiber optic

    (c) Complexer

8. *(a)* What is a switch? Why is it used in a network? Explain.

    (b) What is a file server? Explain its function.   5+4=9

SECTION—II

(Network Environment)

9. *(a)* What is File Transfer Protocol (FTP)? Explain.

    (b) What are cookies? Explain.   5+4=9

10. *(a)* What are the security measures in a network to present?

    (b) What are the important steps in a network to prevent from intruders? Explain.   3+6=9

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

    (a) Remote Login

    (b) Web Server

12. *(a)* Write a short note on 'addressing in the Internet'.

    (b) Explain Class A, Class B and Class C networking.   4+5=9

(**8**)

SECTION—III

(Network Application)

13. *(a)* What is a Web browser? Explain with example.

    (b) Write a short note on HTML and its code types.

    3+4=7

14. *(a)* What is Internet explorer? Explain its importance.

    (b) Write a short note on TCP/IP.   4+3=7

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

    (a) ROUTERS

    (b) TELNET

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