

Total No. of Printed Pages—8

HS/XII/V/CT/Paper-V/19

2 0 1 9

COMPUTER TECHNIQUE

(Vocational Stream)

Paper : V

(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 questions 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 network that confined to a relatively small area.
 - (b) A _____ is a set of rules that governs the communications between computers on a network.

(2)

- (c) The Mozilla Firefox is a popular _____.
- (d) The Internet is an example of _____.
- (e) A _____ stands at the heart of most network.
- (f) In _____ switching, packets are stored at intermediate nodes.
- (g) A server is a computer that stores the network programs and shared _____ files that users can get access to.
- (h) _____ are collection points for wires that interconnect workstations and transmits messages out the single port to which the destination station is connected.
- (i) The mobility is one of the advantages of _____ LAN.
- (j) _____ are collection points for wires that interconnect workstations.
- (k) A _____ is computing device that makes decisions as to which route a piece of data will follow next.
- (l) A _____ is a component used to transfer data in terms of signals in the network.
- (m) A/An _____ is a device that provides a computer a dedicated connection to the network.

(3)

- (n) A _____ is a connecting device between Local Area Network and Wide Area Network.
- (o) For a computer to be connected to a network, the computer must have a card known as the _____.
- (p) In a Star Topology, the central computer that has everything routed through it is called a(n) _____ computer.
- (q) To connect two similar LANs we use a device called a(n) _____.
- (r) _____ is a device converts the analog signals and vice versa.
- (s) _____ is the device which increases the strength of the signal in a network.
- (t) _____ ensures messages cannot be intercepted or read by anyone other than the authorized recipient.

List of phrases/words :

Browser	Medium	Hubs	Packets
Frame	NIC	MAN	Ethernet
Host	LAN	Wireless	Data
Guest	Network	Router	Client
Switch	Bridge	Protocol	Modem
Server	UPS	WAN	Repeater
Encryption	Node	HTML	Decode

(4)

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

- (a) LANs are arranged in star, bus or ring configurations.
- (b) All modems are direct connect devices.
- (c) Clients request services from service requesters.
- (d) An octet is an 8-bit binary number.
- (e) In HTML,
 is an example of container tag.
- (f) The FACE attribute in HTML of the FONT element lets us select the font in which the text will be displayed.
- (g) “.wav”, is an extension of graphics file format.
- (h) ‘Telnet’ is a popular Web browser.
- (i) Wireless media are called unguided media.
- (j) A hub is used to boost the signal strength as it passes along a cable.

(5)

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

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

(i) SMPS

(ii) SWITCH

(iii) RAM

(iv) UPS

(b) What 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

(c) A large number of computers in a wide geographical area can be efficiently connected using

(i) twisted pair lines

(ii) co-axial cables

(iii) communications satellites

(iv) None of the above

(6)

(d) Which layer (OSI model) is responsible for congestion control?

- (i) Network layer
- (ii) Data link layer
- (iii) Transport layer
- (iv) Application layer

(e) Which of the following is not a communication device?

- (i) NIC
- (ii) UPS
- (iii) MODEM
- (iv) None of the above

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

- (a) Bluetooth
- (b) Hubs
- (c) Telnet
- (d) Domain name
- (e) HTTP
- (f) URLs
- (g) OSS
- (h) WWW

(7)

(PART : B—DESCRIPTIVE)

(Marks : 50)

Answer *any two* questions from each Section

SECTION—I

(**Network Technologies**)

5. (a) What are the advantages and disadvantages of star and ring topologies? 5
(b) What is a private network? Explain with example. 4
6. (a) Write a short note on VSAT. 5
(b) What are the advantages of wireless LANs? Explain. 4
7. Write notes on the following (any two) : $4\frac{1}{2} \times 2 = 9$
(a) Unguided media
(b) Routers
(c) Fibre optic cable
(d) Complexer
8. (a) Explain the 'frame relay' in WAN technologies. 4
(b) What is bridge? What are its functions? Explain. $2+3=5$

SECTION—II

(Network Environment)

9. (a) Write a short note on 'addressing in the Internet'. 4
(b) Explain class A, class B and class C networks. 5
10. (a) Write a short note on Remote Access Server. 6
(b) What is cookie? Explain. 3
11. (a) What are the security measures in a network? 3
(b) What are the important steps in a network to present from intruders? Explain. 6
12. Write short notes on the following : $4\frac{1}{2}+4\frac{1}{2}=9$
(a) Remote login
(b) Web server

SECTION—III

(Network Application)

13. (a) What is a Web browser? Explain with example. 3
(b) Write a short note on HTML and its code types. 4
14. Write short notes on the following : $3\frac{1}{2}+3\frac{1}{2}=7$
(a) FTP
(b) EDI
15. (a) What is Internet explorer? Explain its important. 4
(b) Write a short note on Archie. 3
