

Inter (Part-I) 2021

Computer Science		PAPER: I
Time: 2.10 Hours	(SUBJECTIVE TYPE)	Marks: 60

SECTION-I

2. Write short answers to any SIX (6) questions: (12)

(i) Define the term information technology (IT).

Ans Information Technology (IT) is the technology that merges computing with high-speed communication links carrying data in the form of text, sound, images, video, etc. from place to place over this global village.

(ii) What is hardware?

Ans Physical parts of the computer are called hardware. These parts are: Keyboard, mouse, camera, scanner, monitors, printers, hard disk, CD, etc.

(iii) Write the name of any two input devices.

Ans Following are the name of two input devices:

1. Keyboards
2. Mouse

(iv) What is system software?

Ans System software is used to control the usage and allocation of different hardware components and enables the other application programs to execute e.g., Operating systems, Utility programs and Drivers etc.

(v) What is the purpose of presentation layer?

Ans Presentation layer is concerned with how data is converted and formatted for data transfer. This layer performs code conversion, data translation, compression and encryption.

(vi) What is extranet?

Ans An extranet is a network of multiple intranets. It means that intranets of different companies are connected together for the collaboration among the companies. On

an extranet, each connected company gives selected rights to the employees of other companies to access its intranet.

(vii) What is WAN? Give an example.

Ans WAN stands for Wide Area Network. It is a network of geographically distant computer terminals. In practice, a personal computer sending data to some remote area is probably sending it to the mainframe or mini computer.

(viii) What is broadband?

Ans Broadband is a technique for transmitting large amounts of data, voice and video over long distances simultaneously by modulating each signal onto a different frequency. Using the FDM (frequency division multiplexing) technique, several streams of data can be transmitted simultaneously.

(ix) What is coaxial cable?

Ans Coaxial cable can be used for telephone lines for transmission at a high frequency. Coaxial cable consists of a single core of solid copper. Many computers in LAN are linked by coaxial cables.

3. Write short answers to any SIX (6) questions: (12)

(i) List two benefits of video conferencing.

Ans Following are the two benefits of video conferencing:

1. Conferencing using video cameras and micro phones.
2. Simulate normal meeting environment.

(ii) What is E-banking?

Ans In E-banking, Bank use mainframe computer to maintain their customer accounts by dealing with the transaction generated as a result of withdrawals and deposits.

(iii) What is computer simulation?

Ans A computer simulation is a special type of computer model, which provides the behavior of a system that might exist outside the computer.

(iv) What is SRAM?

Ans SRAM stands for Static M. In SRAM, individual cells are made by using digital gates and each cell can hold its value without any need to refresh it frequently. It is faster than DRAM because it does not have to be refreshed with electric charge frequently and the CPU has not to wait to read & write data.

(v) What is computer architecture?

Ans The design or construction that shows the organization and interconnection of virus computer components is called computer architecture. Components of computer architecture are CU, ALU, Main Memory, I/O unit and Bus Interconnection.

(vi) Define memory address.

Ans Memory address is a data concept used at various levels by software and hardware to access the computer's primary storage.

(vii) What is cache memory?

Ans Cache memory usually has a very small size as compared to the total memory in the computer but very fast to RAM. RAM technology is used to build a cache memory. The cache memory plays very important role in increasing the performance of a computer system.

(viii) What is biometrics?

Ans We use bio-metrics to authenticate the users on their physical properties like fingerprint and retina etc.

(ix) How the virus is activated?

Ans As the virus attaches itself with files present on a system, so the only way, a virus can reach from one computer to another, is when some data is exchanges between these computers either USB disks, or the network.

4. Write short answers to any SIX (6) questions: (12)

(i) What is multitasking?

Ans The capability of an operating system to load multiple programs into memory at one time and to perform two or more processes concurrently, such as printing a document while editing another, is known as Multitasking.

(ii) Define command line interface.

Ans A command line interface provides a command prompt to the user for typing different commands to interact with the computer. The user needs to memorize commands to perform different tasks e.g., DOS.

(iii) What is the purpose of My Document Folder?

Ans It is the default folder for storing different kinds of documents. If you create a document in MS Word or MS Excel and don't specify the location where it should be saved, then by default windows will save it in my documents folder.

(iv) What is the use of Word Processor?

Ans Uses of word processor are as follows:

1. Preparation of text-based documents.
2. Manipulate text data.

(v) Define Page margins and Page size in Word Processor.

Ans Page margins define the boundaries of the text. The text cannot cross these boundaries. In every document, all the four margins (top, bottom, left and right) can be same or different.

Page size plays an important role in the formatting of the page. Page formatting changes according to size of the page. Changing the size of the page can disturb the formatting of the whole document.

(vi) What is WYSIWYG?

Ans With WYSIWYG (What You See, Is What You Get), a document appears on the display screen exactly as it will look when printed.

(vii) Define cell and how it is identified in Excel.

Ans Cell is the basic unit where the data is entered in a worksheet. The data can take variety of forms i.e., text,

numbers, dates and formulas. The cell also can hold graphics, audio files, and video or animation files. There are two states of a cell *i.e.*, active and passive.

(viii) List two benefits of spreadsheet.

Ans Spreadsheet or worksheet is beneficial for:

1. Recording and comparing numerical data.
2. Accounting and budget making.

(ix) What do you understand by the term "Named Ranges"?

Ans Range names are names that you define to represent a cell or cell range on a worksheet. These range names can further be used in formulas instead of cell addresses or ranges. They also make it easier to use, maintain and understand the formulas in the worksheet.

SECTION-II

Note: Attempt any THREE (3) questions.

5. Explain components of Networks: (2,2,2,2)

(a) NIC (b) Router (c) Bridge (d) Gateway

Ans (a) NIC (Network-interface-card):

It connects each computer to the wiring in the network. NIC is a circuit board that fits in one of the computer's interval expansion slots.

(b) Router:

A router is a device that connects two or more networks. It consists of a combination of hardware and software. The hardware can be a network server, a separate computer, or a special black box device.

(c) Bridge:

It connects similar networks, which recognizes the messages on a network and passes on those addressed to nodes in other networks.

(d) Gateway:

A gateway is a collection of hardware and software resources that lets a node communicate with a computer on another different network. A gateway, for example,

could connect an attorney on a local area network to a legal service offered through a wide area network.

6. Explain four different types of data in computer. (2,2,2,2)

Ans For Answer see Paper 2014, Q.6.

7. Define language translator. Discuss different types of language translators. (8)

Ans For Answer see Paper 2014, Q.7.

8. What is data security? Explain six ways in which the security of data is violated. (2,1,1,1,1,1)

Ans **Data Security:**

Data security refers to the process of protecting data from unauthorized access and data corruption through its life cycle. Data security includes data encryption, hashing, tokenization, and key management practices that protect data across all applications and platforms.

Security Violations:

Following are some of the ways in which the security of data may be violated:

1. Someone may break into the computer room and take away all storage devices housing sensitive data.
2. Unauthorized users may take access to personal data of someone and then use it to gain some advantages. For example, if someone gets access to your credit card number, then he can use it to do online shopping from your account.
3. An unauthorized user may use an online mail server, like mail.yahoo.com to view email message of other users hence causing privacy issues.
4. Someone can send a virus onto a network causing the network to become very slow or even unusable.
5. Some users may gain unauthorized access to bank accounts and transfer a large amount of money from other accounts to his personal account.

6. A person may make a computer so busy by sending many requests so that the computer becomes unavailable to authorized users. This is called denial of service situation.

Q.9. Explain internet addressing schemes and its two types. (2,3,3)

Ans Addressing Schemes:

The purpose of the internet is to establish communication between widely spread computers. Computers can send and receive data to each other. Any computer may initiate a transaction at any time. For this reason, the source machine (Computer) must have a unique identification of the destination computer. On the internet, every computer has a unique address and can be contacted on this address. There are two types of addressing schemes recognized on the Internet, these are:

The strings of numbers that make up IP addresses, and because IP addresses sometimes need to change, all servers on the internet also have human-readable names, called domain names. For example, www.hotmail.com is a permanent, human readable name. It is easier for most of us to remember it than it is to remember an IP address. The name www.hotmail.com actually has two parts a host name and domain. The domain represents the institution which uses the address. These domain names called top level domain. Following is a list of top level domains:

Domain	Type of Institution
.com	Business (Commercial)
.edu	Educational institutes
.gov	Government organizations
.mil	Military organization
.org	Other organizations (non-profitable)

Some large organizations divide their top level domain into sub-domains. This let you organize their web references.