Inter (Part-I) 2018

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) How does a pointing stick work?

Ans We move the pointing stick with our forefinger while using the thumb to press buttons located in front of the space bar.

(ii) Why we need training of users for a new system?

Ans Training is necessary to tell the users, how the system will work. To familiarize the users, with the interface and working of new system.

(iii) Define digital convergence.

Ans The digital convergence is the technological merger of various industries or enterprises through some electronic gadgets that exchange information between them.

(iv) What is the function of presentation layer in OSI model?

Ans Presentation layer is concerned with how data is converted and formatted for data transfer. Examples of format conversions include ASCII text for documents and .gif and JPG for images. This layer performs code conversion, data translation, compression and encryption.

(v) How tree topology is constructed?

Ans Tree topology integrate multiple star topologies together onto a bus. In its simplest form, only hub devices connect directly to tree bus, and each hub function as the "root" of a tree of devices.

(vi) Differentiate between internet and extranet.

Ans Internet is the global network of computers to share and communicate across the world. While extranet is the combination of multiple intranets.

(vii) Define bandwidth.

Ans Bandwidth is a measure of the transmission rate of communication channel.

(viii) Explain De-modulation.

Ans De-modulation is conversion of Analog signals into Digital signals.

(ix) Differentiate between analog and digital signal.

Ans Analog signals are continuous electrical signals in the form of wave. While a digital signal uses on-off electrical pulses in discontinuous or discreet form.

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

(i) Write any two advantages of using ATM in banks.

Ans The two advantages of using ATM in banks are:
1. Time saving.
2. Convenience for customer.

(ii) How computer can be useful in marketing?

Ans Computer can be useful in marketing as help manageners to develop strategies that combine the four major elements of marketing: Product, Promotion, Place and Price.

(iii) Write two benefits of Computer Aided Learning.

Ans Two benefits of Computer Aided Learning (CAL) are:
1. CAL may be able to aid us in reducing the time.
2. It is also reducing the administrative load associated with teaching and research.

(iv) Why ALU is necessary for a computer system?

Ans ALU is necessary for a computer because it performs Arithmetic and logical operations.

(v) Write the use of expansion bus.

Ans The use of expansion bus is to attach peripherals to the system bus or CPU.

(vi) What is the use of Memory Address Register?

Ans Memory Address Register (MAR) holds the memory location of data that needs to be accessed.

(vii) Define three-address instruction format.

Ans Computer with three-address instruction formats can use each address field to specify either a processor register or memory operand.

(viii) What is Dynamic Random Access Memory?

Ans Dynamic Random Access Memory (DRAM) is a type of memory used in most computers. It must have an electric current to maintain electrical state.

(ix) Why we use bio-metrics in computer security?

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

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

(i) What is primary partition?

Ans The partition that can be used to boot an operating system is known as primary partition.

(ii) Name two events of keyboard.

Ans The two events of keyboard are:
1. Key up   2. Key down

(iii) Differentiate between multitasking and multiprocessing operating system.

Ans Multitasking is the ability of operating system (OS) to run multiple processors simultaneously. On the other hand, multiprocessing is the ability of OS to use multiple processors simultaneously.

(iv) State the use of page setup dialog.

Ans The page setup dialog is used to set the page size, orientation or margins etc.

(v) What is WordArt in word?

Ans WordArt in MS-Word is used to create artistic text. It can be used to add color, outlines and shadows to regular text.

(vi) Define formula in MS-Excel.

Ans Formula in MS-Excel is used to express mathematical relationships between cells.

(vii) Name two types of charts used in MS-Excel.

Ans Two types of charts in MS-Excel are:
  1. Pie Chart   2. Bar Chart

(viii) How Web pages are created?

Ans A web page is stored in a special kind of file, called a "html file". html files can be created in almost any program that can be used to edit text files.

(ix) Distinguish between HTTP and FTP.

Ans Websites are accessed using HTTP with the help of browsers while FTP is used in transferring files from one computer to another.

SECTION-II

Note: Attempt any THREE (3) questions.

5. **What is impact printer? Discuss Dot Matrix Printer and Daisy Wheel Printer.** (2,3,3)

Ans **Impact Printer:**

An impact printer forms characters or images by striking a mechanism such as a print hammer or wheel against an inked ribbon, leaving an image on the paper. Following are a few types of impact printers:

Dot-Matrix printer:

It contains a print head of small pins, which strike an inked ribbon against paper, forming characters or images. Print heads are available with 9, 18, or 24 pins, with the 24-pin head offer the best quality prints.

Daisy-Wheel printer:

This printer uses a mechanism in the shape of a series of petals arranged on a petal wheel, having a character at the end of each petal. A character comes into

a print position by wheel rotation and an image is formed by the hammer strike on the desired character. It is slower than dot-matrix printer but better in quality.

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6. **What is Bus Topology? Explain its working with diagram. Also write down its two advantages and two disadvantages.** (2,2,2,2)

Ans For Answer see Paper 2017, Q.6.

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7. **Define data communication. Explain basic components of data communication.** (2,1,1,1,1,2)

Ans **Data Communication:**

Data communication is the exchange of data between two devices via some form of transmission media such as a wire cable. In other words, we can say that transfer of information or data from one location to another is called Data Communications.

Component of Data Communication:

There are five components in data communication:

Message:

The message is the information (data) to be communicated. It can consist of text, number, pictures, sound, video or any combination of these.

Sender:

The sender is the device that sends the data. It can be computer, workstation, telephone, video camera and so on.

Receiver:

The receiver is the device that receives the data. It can be computer, workstation, telephone, television and so on.

Communication Channel:

The Communication channel is the physical path by which a data travels from sender to receiver. It can be a twisted-pair wire, coaxial cable, fiber optic cable, or microwave etc.

Encoder and Decoder:

The encoder converts digital signals to a form, which can pass through transmission medium and decoder again

converts signal from encoded form into digital form, which is understandable for receiver. Without these, two devices may be connected but not communicating, such as a student speaking Urdu cannot understand a student who speaks only German without a translator.

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8. What is ROM? Explain different types of ROM.
(2,6)

Ans **ROM (Read Only Memory):**

The contents stored in this memory can be read but new data cannot be written onto it, so it is read only. The manufacturer of the ROM writes the data and programs permanently onto it and this data and programs cannot be changed afterwards. ROM contains frequently used instructions and data.

Types of ROM:

(i) PROM (Programmable Read Only Memory):

This form of ROM is initially blank and the user or manufacturer can write data onto it by using special devices. Once the program/data is written onto PROM, it can be changed or altered. It is obvious that this kind of ROM will be used for storing user made programs and data and the data should have a very long lifetime as the data written onto this kind of ROM cannot be changed.

(ii) EPROM (Erasable Programmable Read Only Memory):

Like PROM, it is initially blank. Programs and data can be written on it by the manufacturer or by the used by using special devices. Unlike PROM, the data written on it can be erased by using special devices using ultraviolet rays. So data/program written on it can be changed and new data can also be added on this form of ROM. As the data written on this kind of ROM can be changed, so data

that is to be updated can be written onto it but frequently changing data should not be written on this ROM.

(iii) EEPROM:

Yet another form of ROM is EEPROM (Electrically Erasable Programmable Read Only Memory). This kind of ROM can be re-written by using electrical devices and so data stored on this ROM can be easily modified.

Q.9. Define Graphical User Interface and Command Line Interface Operating Systems. Give any four comparisons between them. (4,4)

Ans. **Graphical User Interface Operating System:**

A GUI operating system provides a graphical user interface to establish the user communication with the computer. The user does not require memorizing commands to perform various tasks such as copying a file, opening a document, printing a spreadsheet, etc. The user uses graphical objects (e.g., icon, windows, buttons, etc.) to perform different tasks. He/She just requires recognizing various graphical objects and tasks that can be performed with them. Examples of GUI operating system are Windows, Linux, and Solaris etc.

Command Line Operating System:

A command line operating system 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. Examples of Command line operating system are DOS (Disk Operating System), Unix, etc.

Command Line Interface Operating System Vs Graphical User Interface Operating System:

Feature	Command Line O.S.	GUI O.S.
Ease	Because of the memorization and familiarity needed to	Although new users may have a difficult at time

	operate a command line, interface new users find it much more difficult to successfully navigate and operate a command line interface.	learning to use the mouse to operate and use a GUI most user pick up this interface much easier when compared to a command line interface.
Control	Users have much more control of their file system and operating system in a command line interface. For example, users can easily copy a specific type of file from one location to another with a one-line command.	Although a GUI offers plenty of control of a file system and operating system, often advance users or users who need to do specific task may need to resort to a command line to complete that task.
Multitasking	Although many command line environments are capable of multitasking those do not offer the same ease and ability to view multiple things at once on one screen.	GUI users have windows that enable a user to easily view, control, and manipulate multiple tasks at once and are commonly much faster.
Speed	Because command line users only need to use their keyboards to navigate a command line interface and often only need to execute a few lines to perform a task. An advanced command line interface user would be able to get something done faster.	A GUI may be easier to use because of the mouse. However, using a mouse and / or keyboard to navigate and control your operating system for many tasks is going to be much slower in this case.