

## Ch-1 Paper 17

Q1) What is the importance of computers in our everyday life?

Ans. Computers play an important role in our everyday life. They are used in variety of ways, whether it's for work or play. Many computers are now mobile and can be taken anywhere with you. Computers have made our lives so much easier by performing countless tasks that would have been done manually before they were invented.

The importance of computers in daily life can be summarized as follows:

- A computer is a vital tool for accessing and processing information and data, as it is the first window to access the internet.
- It is an important tool for science students, who generally rely on it in preparing their educational reports and projects.
- Computers are also used in education, institutions, businesses, entertainment and other sectors.

Computers have revolutionized the way we live our lives. They have made it easier for us to access information, communicate with others, and perform a wide range of tasks. For example, computers are used in education to help students learn and teachers teach. They are also used in businesses to help with tasks such as accounting, inventory management,

and customer services.

In addition to these practical uses, computers also provide us with entertainment. We can use them to play games, watch movies, and listen to music. They have truly become an integral part of our daily lives.

(Q2) Define server, work station and desktop.

Ans. A server is a computer or computer program that manages access to a centralized ~~resor~~ resource or service in a network. It is designed to concurrently provide (shared) services to many people. Servers are often ~~dedicat~~ dedicated to one purpose: for example, a file-server provides shared file-storage services to a group of ~~peop~~ people, while an email server provides email collection, transmission and storage services to a group of people. Servers do not typically ~~ha~~ have a dedicated screen, keyboard or mouse attached - they are managed by other means or by using a KVM switch to share one keyboard etc between large numbers of ~~ser~~ servers.

A desktop is a microcomputer that is suitable for use at an ordinary desk. It is designed for use by one person on their desk. Desktop ~~as~~ computers are commonly used for personal computing tasks such as browsing the internet, creating documents, and playing games.

A workstation is a general-purpose computer with a higher performance level than a personal computer. It is usually a more powerful desktop. Workstations are often used for tasks that require more processing power and memory than a typical desktop computer can provide, such as scientific research, engineering design and video editing.

Q3) Explain about five portable devices.

Ans. Portable devices are small and lightweight enough to move around and carry with relative ease. There are five examples of portable devices:

1) Smartphones

These are mobile phones that have advanced computing capabilities and connectivity options. They run on operating systems such as iOS or Android and can be used for a wide range of tasks, including making calls, sending messages, browsing the internet, and taking photos. Smartphones also have a wide range of sensors, such as accelerometers and GPS, that allow them to track movement and locations.

2) Tablets:

These are portable computers with touchscreens that are larger than smartphones but smaller than laptops. They run on operating systems such as iOS and Android and can be used for browsing the internet, reading e-books, watching videos, and playing games. Tablets often have

front and rear-facing cameras and can be used for taking photos and making video calls.

### 3) Laptops

These are portable computers that are small and lightweight enough to be carried around easily. They have all the capabilities of a desktop computer but are designed for mobile use. Laptops run on operating systems such as Windows or MacOS and can be used for a wide range of tasks, including browsing the internet, creating documents, and editing photos.

### 4) Smartwatches

These are wearable computers that are worn on the wrist like a watch. They run on operating systems such as WatchOS or WearOS and can be used for tracking fitness data, receiving notifications, making calls, and sending messages. Smartwatches often have sensors such as heart rate monitors and accelerometers that allow them to track physical activity.

### 5) Game Device

Portable gaming devices are small computers that are dedicated to playing various computer games. They have good quality displays and increasingly more powerful, with some having wireless capabilities to allow multi-person gaming. Examples include Sony

Playstation Portable, Nintendo switch, Steam deck etc.  
Gaming devices run a proprietary OS and games are written  
for this specific OS and device.

Q4) What is the role of motherboards in computers?

Ans. The motherboard is a critical component of a computer that acts as the central backbone on which other modular parts are installed such as the CPU, RAM and hard disks. It also acts as the platform on which various expansion slots are available to install other devices/interfaces. The motherboard is responsible for distributing power to the various components of the computer.

A mother board provides the electrical connection by which the other components of the system communicate. It contains the central processing unit and hosts other subsystem and devices. A typical desktop computer has its microprocessor, main memory, and other essential components connected to the motherboard.

In summary, the motherboard ties the computer's component together at one spot and allows them to talk to each other. Without it, none of the computer pieces, such as the CPU, GPU, or hard drive, could interact. Total motherboard functionality is necessary for computer to work well.

Q5) Why RAM is known as volatile memory?

Ans. RAM is called volatile memory because it can hold data as long as it is connected to a power supply. When it gets

disconnected from the power supply, it cannot hold data and all the data on it will be erased. This is due to the fact that RAM stores data on electronic transistors, rather than a chip or disk.

In Summary, RAM is called a volatile memory because it loses its data when the power is switched off. It stores data when the system is running but erases it when the power is turned off.

Q6) Discuss some input devices of computer.

Ans. Input devices are hardware devices that send data to a computer, allowing you to interact with it and control it. Some common input devices include keyboard, mouse, scanners, cameras, joysticks, and microphones.

- Keyboard:

The keyboard is the most common and widely used input device for entering data into a computer. The keyboard layout is similar to that of a typical typewriter, with some additional keys for performing other operations.

- Mouse: The mouse is the most common pointing device. It is used to move a small cursor across the screen while clicking and dragging. The cursor will stop if you let go of the mouse. The computer is

dependent on you to move the mouse; it won't move by itself. As a result it's an input device.

- Scanner:

A scanner is an input device that captures images of documents, photos or objects and converts them into digital format.

- Camera:

A digital camera is an input device that captures still images or video and stores them in digital format.

- Joystick:

A joystick is a pointing device that is used to move the cursor on a computer screen. It is often used for playing video games.

- Microphone:

A microphone is an input device that captures sound and converts it into an electrical signal that can be interpreted by a computer.

These are just some examples of input devices. There are many other types of input devices available, each with its own unique features and capabilities.

Q7) List 5 adapter cards which can be used in computer and explain briefly.

Ans. An adaptor card, also known as expansion card, is a circuit board that is plugged into the expansion bus of a computer to add function or resources. There are 5 examples of adaptor cards that can be used in a computer.

- Video card:

A video card is an adapter card that allows a computer to send graphical information to a display device such as a monitor. It contains a graphics processing unit (GPU) and memory to store graphical data. Video cards can improve the performance of graphic-intensive applications such as video games and video editing software.

- Network card:

A network card is an adapter card that allows a computer to connect to a computer network. It provides an interface b/w the computer and the network cable. Network cards can support various types of network such as Ethernet, Wi-Fi, and Bluetooth.

- Sound card:

A sound card is an adaptor card that allows a computer to produce sound through speakers or headphones. It contains digital-to-analog converters (DAC) to convert digital audio data into an analog signal that can be output through speakers or headphones. Sound cards can improve the audio quality of music.

movies and games.

- USB card:

A USB card is an adapter card that adds additional USB ports to a computer. It provides an interface between the computer and USB devices such as external hard drives, printer, and cameras. USB cards can support various versions of the USB Standards such as USB 2.0 and USB 3.0.

- Wireless network card:

A wireless network card is an adapter card that allows a computer to connect to a wireless network. It contains a radio transceiver to send and receive data over the airwaves. Wireless network cards can support various wireless standards such as Wi-Fi and Bluetooth.

### Q8) Explain the functionality of UPS.

Ans. A UPS (Uninterruptible Power Supply) is an electrical apparatus that provides emergency power to a load when the input power source or mains power fails. The primary function of a UPS is to provide battery backup when the electrical power fails or drops to an unacceptable voltage level. It ensures that your electrical equipment gets a consistent current so damage, such as database corruption can be avoided.

A UPS performs several functions, including:

1. Absorbing relatively small power surges.
- 2) Smoothing out noisy power sources.
- 3) Continuously providing power to equipment during line sags.
- 4) Automatically shutting down equipment during long power outages.

In summary, a UPS provides backup power and ~~protective~~ protection to your electrical equipment in the event of power disruptions. It helps prevent damage ~~to~~ and data loss by ensuring that your equipment receives a consistent and stable power supply.

Q9) What are the procedures for installing components of computer?

Ans. Installing components of a computer involves several steps and procedures. Here are some general steps to follow when installing components into a computer:

- Take inventory:

Before you start, take inventory of your parts and make sure you have everything you need.

- Make space, make time:

Building Building a PC takes space and time. Make sure you have enough room to work and set aside enough time to complete the installation.

- Prepare your CPU cabinet:

Now it is time to prepare the case. This may involve removing panels or drive bays to make room for your components.

- Install the motherboard:

The motherboard is the backbone of your computer and all other components will be connected to it. Make sure it is securely fastened to the case.

- Install the processor (CPU):

The processor is the brain of your computer and should be installed into the motherboard.

- Install the CPU heat sink:

The heat sink helps to dissipate the heat generated by the processor. Make sure it is properly installed and secured.

- Install RAM memory:

RAM provides temporary storage for data being processed by the CPU. Make sure it is properly installed in the CPU into the appropriate slots in the motherboard.

- Install the power supply unit (SMPs):

The power supply unit provides power to all of the components

in your computer. Make sure it is properly installed and all necessary cables are connected.

These are just some general steps to follow when installing components into a computer. The specific procedures may vary depending on the components you are installing and the design of your computer case.

Q10) Name the 5 connectors used to connect peripheral devices. Also explain about these connectors.

Ans. There are several different types of connectors that can be used to connect peripheral devices to a computer. There are 5 common connectors used for this purpose:

- USB:

The USB (Universal serial bus) connector is one of the most widely used connectors for connecting peripheral devices to a computer. It is used for data transfer and charging devices.

- HDMI:

The HDMI (High-Definition Multimedia Interface) connector is used to transmit high-quality audio and video signals b/w devices.

- Ethernet:

The Ethernet connector is used to connect a computer to a wired network.

- VGA:

The VGA (Video Graphics Array) connector is an old display adapter that is used to transmit analog video signal.

- Audio:

Audio connectors are used to transmit audio signals between devices. There are several types of audio connectors, including 3.5mm, RCA, and optical.

There are just some examples of connectors that can be used to connect peripheral devices to a computer. Each type of connector serves a specific purpose and can be used to connect different types of devices.