

## Chapter-1

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# PARTS OF A COMPUTER

## STUDY NOTES

A computer is a useful machine. It is used in almost every sphere of our life. We can play games, write letters, draw pictures, listen to music, store information, solve sums, etc. on a computer. It can work very fast and can do many jobs at the same time.

A computer performs the following functions :

**INPUT** : Accepts data given by the user.  
**PROCESSING** : Works on data according to the instructions.  
**OUTPUT** : Gives the desired results

**STORAGE** : Stores the information

### DIFFERENT FIELDS WHERE COMPUTERS ARE USED



### HOW DOES A COMPUTER WORK ?

Every computer goes through the following three stages

**INPUT** : The data and instructions, which we enter using a keyboard or a mouse into a computer, is called Input. We can enter numbers, words, pictures, or sounds as input.

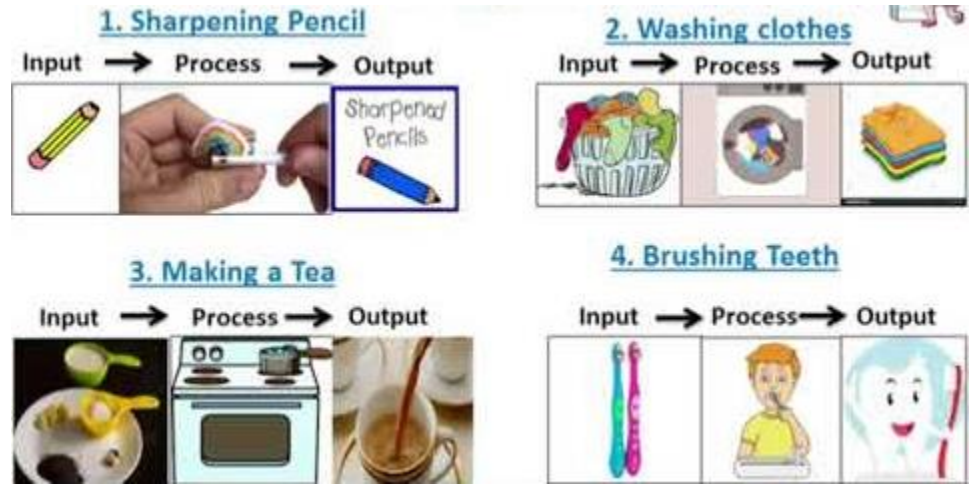
**PROCESSING** : After entering the data and instructions in a computer, the CPU works on the input to give us meaningful information. This is called Processing.

**OUTPUT** : The meaningful information that we get after processing is known as Output.

This Input Process Output (IPO) cycle can be understood with the help of an example.



Likewise, we also perform various tasks by following the Input-Process-Output (IPO) cycle.



**PARTS OF A COMPUTER**

A computer has four main parts, which help in performing the IPO cycle.

**KEYBOARD**

A keyboard is used to type data and instructions into the computer. The commonly used keyboard has 104 keys, which can be divided into many groups based on their functions.

1. Typing Keys	These keys include letters (Alphabet keys), numbers (Number keys), punctuation ( . , ; ' “ ), and special symbols ( + - ; \$ etc ) keys. These keys also include the Shift, Caps Lock, Spacebar, Backspace, and Tab keys.
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2. Control Keys	These keys are either used alone or in combination with the other keys to perform certain actions. Ctrl, Alt, Windows logo key, and the Esc key are the various examples of Control keys.
3. Functions Keys	These keys are used to perform specific tasks. They are placed on the top row of the keyboard and are labeled as F1, ..F12. These keys have different functions in different programs.
4. Navigation Keys	These keys are used for moving through the documents and editing the text. These keys include the Arrow keys, Home, End, Page Up, Page Down, Delete and Insert keys.
5. Numeric Keypad	The numeric keypad consists of number keys from 0 to 9, the arithmetic operators and the decimal point, similar to their appearance on a calculator. It is placed on the right side of the keyboard and used for entering numbers at a fast speed.

## MONITOR

A monitor looks like a TV screen. It displays the work that we do on a computer. It also displays the results and movement of the mouse pointer on the screen. A monitor is also known as a Visual Display Unit (VDU). The information that we see on a monitor is called soft copy. There are three types of monitors.

- 1. Cathode Rays Tube (CRT) monitor :** CRT monitors are big in size and consume more power.
- 2. Liquid Crystal Display (LCD) monitor :** They are monitors with flat screens that consume less power.
- 3. Light-Emitting Diode (LED) monitor :** These monitors have better display. They are thinner and lighter in weight. LED monitors are 40% less power than LCDs and last longer. These monitors are in maximum use now a days.

## CENTRAL PROCESSING UNIT (CPU)

It is the brain of a computer that processes all the instructions given to the computer. It does all the calculations and displays the result on the monitor. It also stores a lot of information.

A CPU consists of three main parts. They are – MU, CU and ALU.

## Memory Unit (MU)

In Memory Unit, we can store information or data according to our need. The information in the memory can be changed and recalled on the screen, whenever needed. The data and instructions are also stored in the memory unit, which are to be processed.

**Control Unit (CU)**

The control unit works like a traffic policeman. It controls and manages the working of all the parts of a computer.

**Arithmetic and Logic Unit (ALU)**

The ALU unit performs all the arithmetic calculations, like addition, subtraction, multiplication, and division. It also performs logical operations.

**MOUSE**

A mouse is a pointing device. It is connected to the CPU by a cable. A mouse usually has two buttons on it. It is used to point, select, and move any object on the screen. When we move a mouse with our hand, a pointer on the screen moves in the same direction. It also helps to draw pictures. Now a days, the most commonly used mouse is the one that has a scroll wheel in the center of the two buttons.

**WHAT MAKES A COMPUTER POWERFUL?**

Speed	A computer works very fast and can do a large number of calculations quickly.
Reliability	Computers are quite reliable. They do not make any mistakes.
Storage	A computer can store a large amount of data, which can be used anytime.
Versatility	A computer can perform a variety of tasks and is used in almost all the fields.
Accuracy	A computer always gives correct results. Mistakes are normally done from a user's side.
Diligence	A computer can work for long hours without getting tired.
Multitasking	A computer can do many things at the same time.

**DISADVANTAGES OF A COMPUTER**

A computer is a useful learning tool, but it has some disadvantages, too. Some of them are as follows :

**Intelligence Quotient (Zero IQ) :** A computer does not have an IQ or its own intelligence. By mistake if you enter the incorrect input, it will give the wrong result.

**Health :** Working on a computer for long hours can affect your eyesight. It can also become the cause of obesity in people.

**Electricity :** A computer depends on electricity and cannot work for a long time without it.

**Costly :** It is a costly device.

# BRAIN DEVELOPER

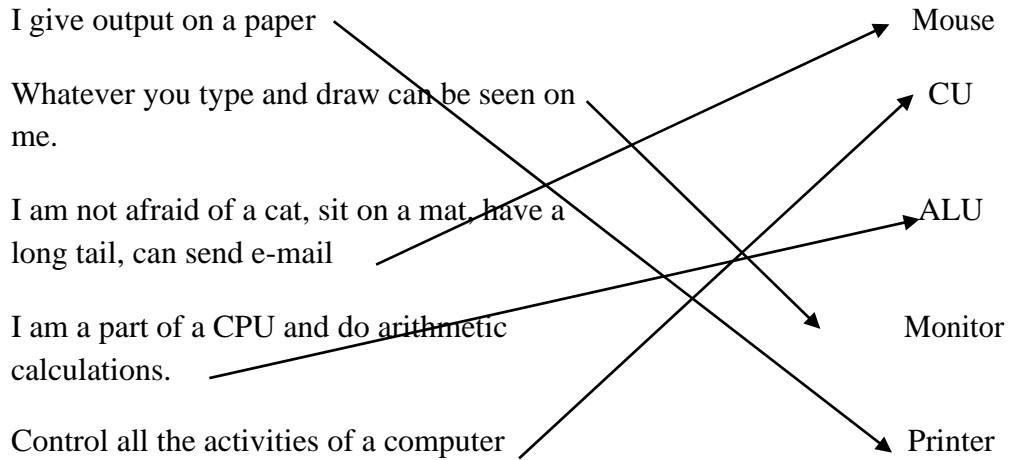
## SECTION-A

### A. Fill in the blanks

1. A computer works with **Data** and **Instructions**.
2. A computer can **store** a large amount of information.
3. A keyboard has **104**keys.
4. A **Mouse** is used to point, select, and move any object on the computer screen.
5. The **Numeric keypad** consists of number keys, arithmetic operators, and the decimal point.
6. A **CPU** does all the calculations and displays the results on the monitor.
7. A monitor is also known as **VDU**.
8. A **Monitor** displays all the work that we do on a computer.
9. **Navigation** keys are used for moving through the documents.

### B. State True or False

1. A computer has an IQ. **False**
2. An output printed on paper is known as soft copy. **False**
3. A computer has four main parts. **True**
4. MU stands for Memory Utility. **True**
5. A CPU consists of AU and LU. **False**
6. The information that we see on a monitor is known as soft copy. **True**
7. Function keys are placed on the right side of the keyboard. **False**

**C. Match the following****D. Application based Questions**

1. Mary is reading the soft copy of a letter. Which part of a computer is she using ?

**Ans : Monitor**

2. Supriya wants to paint using a computer. Which computer device will you suggest her to use for making a colorful drawing?

**Ans: Mouse**

3. Saurabh wants to type a story using a computer. Which device should he use to do so ?

**Ans : Keyboard**

**SECTION-B**

*Changing your Tomorrow* ▲

**A. Multiple-choice questions.**

1. \_\_\_\_\_ can be words, numbers, pictures, or sound.

- (a) **Data**                      (b) Processing                      (c) Meaningful information

2. A computer displays \_\_\_\_\_ after processing the data.

- (a) Input                      (b) Process                      **(c) Output**

3. \_\_\_\_\_ keys are used for moving through the documents or web pages.

- (a) Control                      (b) Function                      **(c) Navigation**

4. The \_\_\_\_\_ monitor consumes the least amount of power.

- (a) LCD                      (b) CRT                      **(c) LED**

5. \_\_\_\_\_ keys are either used alone or in combination with the other keys to perform certain actions.

(a) **Control**

(b) Typing

(c) Navigation

**B. Write full form of the following**

IPO – Input Process Output

CU – Control Unit

CPU – Central Processing Unit

ALU – Arithmetic and logical unit

VDU: Visual Display Unit

MU: Memory unit

IQ: Intelligence quotient

LCD: Liquid crystal Display

**C. Answer the following questions.**

**1. What is a computer?**

**Ans:** Computer is a useful machine that accepts data and instructions given by the user, process it and give the desired result.

**2. How do you enter data and instructions into a computer?**

**Ans:** We enter data and instructions into a computer by using keyboard.

**3. What do you call the information, that you enter into the computer?**

**Ans:** The information we enter into the computer input.

**4. Name the device that is known as the brain of a computer.**

**Ans:** CPU is known as brain of computer.

**5. List any two features of a computer.**

**Ans: Speed:** A computer works very fast and can do a large number of calculations quickly.

**Reliability:** Computers are quite reliable. They do not make any mistakes.

**6. Mention any two disadvantages of a computer**

**Ans: Intelligence Quotient (Zero IQ) :** A computer does not have an IQ or its own intelligence. By mistake if you enter the incorrect input, it will give the wrong result.

**Health :** Working on a computer for long hours can affect your eyesight.

It can also become the cause of obesity in people.

7. How many types of keys are there on the keyboard ? Name them.

**Ans:** There are 5 types of keys present on the keyboard.

- Typing Keys
- Control Keys
- Functions Keys
- Navigation Keys
- Numeric Keypad

