

DELHI PUBLIC SCHOOL, JAMMU
FOUNDATION WORKSHEET
SESSION- 2021-2022

Topic: The Computer System

Subject : Computer

Class: III

Introduction: Students will learn about the following sub-topics:-

- **Computer and its Uses**
- **Functions of a Computer (IPO Cycle)**
- **Different Parts of a Computer**
- **Advantages and Disadvantages of a Computer**
- **Types of Computer**
- **Components of Computer**

Explanation:

Computer

- Computer is an amazing machine that can do different types of work.
- The word Computer is derive from 'compute', which means to calculate.
- A computer is a group of electronic devices which is used to process data.
- Computer is a machine that works with the data and instructions given by the user. It works on IPO cycle.
- A Computer is one of the greatest inventions of mankind. It works at a very high speed .
- Charles Babbage is known as the 'Father of Computer'.

Applications of Computers

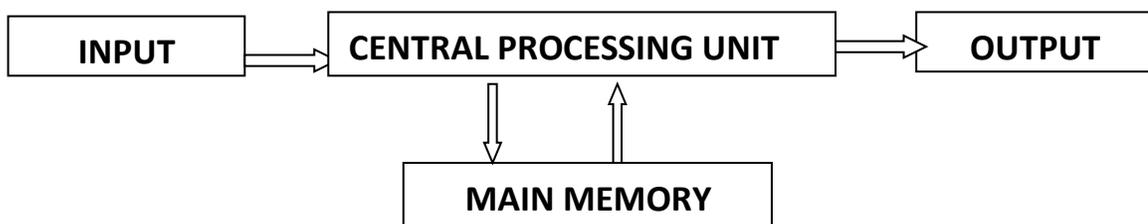
Now a days computer are being used in nearly every field of life. For example:-

- Banks
- Education
- Hospitals
- Entertainment
- Schools/Colleges

A computer performs the following functions:

- Input –Accepts data through Keyboard and Mouse
- Processing-Process data through CPU
- Output-Produces result/output through Monitor
- Storage-Stores result through Hard disk

Memory is the storage brain of computer which holds the data during processing.



Functions of a Computer

- A computer takes an input , carries out a process upon it and produces the output.

Example:-How we can add two numbers ?

Input 2,3

Process $2+3=5$

Output 5

Parts of a Computer



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

Keyboard - It is most commonly used input device. It is used to enter data and instructions into a computer by typing. A standard keyboard has 104 keys. These keys are divided into four groups:

1. Typing Keys (Alphabet Keys and Numeric Keys)
2. Function Keys (F1 to F12)
3. Navigation Keys (Arrow keys, Home, End etc.)
4. Control Keys (Ctrl, Alt etc.)

Monitor- It is a visual display device to present output information in the form of text, graphics or video on the monitor screen. It looks like a television. There are three types of monitors:

1. CRT Monitors (Cathode Ray Tube Monitors)
2. LCD Monitors (Liquid Crystal Display)
3. LED Monitors (Light Emitting Diode)

The output that we get on a monitor is called the Soft Copy Output.

Central Processing Unit - CPU is the brain of a computer where it processes and stores the information, performs calculations and sends the result to the output devices. It performs all the jobs that we order it to do. It is also known as the System Unit.

CPU has mainly three parts:

1. **MU (Memory Unit)** : This stores information temporarily or permanently according to our need.
2. **ALU (Arithmetic and Logical Unit)**: This unit performs all arithmetic calculations and logical operations.
3. **CU (Control Unit)**: The control unit works like a traffic policeman and manages all operations of a computer.

Mouse- It is a pointing device used to insert instructions into the computers. It is a hand held device that controls the pointer on the screen. It has two buttons viz. Left button and right button and one scrolling wheel . With the help of mouse you can draw images, select options and move text and images. The computer mouse is invented by **Dr. Engelbart**.

Printer- An output device that produces text and graphics on a physical medium such as paper or transparency film. The most commonly used printers are Dot matrix, Inkjet and Laser Printers.

- **Dot Matrix Printer**- It works like a type-writer and creates the impression by striking on the paper . It is very noisy and do not produce high-quality output.
- **Inkjet Printer**- It sprays droplets of ink on paper to form the text and graphics . it is ideal for business work and personal documents. It can give output both in black and white and in colour. It produces high quality prints.
- **Laser Printer**- It uses beams and dry ink to print. It prints very fast and gives high quality output. It works like a photocopier.

The output printed on paper is called Hard Copy Output.

Advantages of Computer

Speed – A computer works very fast.

Reliability- Computer are quite reliable.

Storage-A computer can store a large amount of data.

Versatility- A computer can perform variety of tasks.

Accuracy- A computer always give correct results.

Diligence –A computer can work for long hours without getting tired.

Multitasking-A computer can do many tasks at the same time.

Disadvantages of a Computer

Zero IQ(Intelligence Quotient) – A computer does not have an IQ.

Health-Working on a computer for long hours could affect your eyesight.

Electricity- A computer consume lots of electricity.

Costly –It is a costly device.

Types of a Computer

1) Microcomputers

Microcomputers are the ones people are most familiar with on a daily, non-professional basis, but of course that doesn't mean they're exclusive to the home. Microcomputers are smaller computers that run on microprocessors in their central processing units. They are much, *much* cheaper than supercomputers, mainframe computers and even minicomputers, because they're meant for everyday uses that are more practical than professional. Example : Commodore 64, IBM PC.

□ Desktop Computers

A desktop computer is a personal computer that fits on or under a desk. It has a monitor or another display, keyboard, mouse, and either a horizontal or vertical (tower) form factor.

□ Laptop Computers

A laptop computer is a portable personal computer powered by a battery, or an AC cord plugged into an electrical outlet, which is also used to charge the battery. Laptops have an attached keyboard and a touchpad. They are battery operated and portable.

□ Tablet Computers

These computers are smaller and lighter than Laptop Computers. It has 7 or 10 inch screen. We can do all the work in tablet which we do in personal computer such as we play games, watch movies, send e-mails, listen to music etc.

2) Mainframe Computers

Like supercomputers, mainframe computers are huge, towering machines with lots of processing power. Mainframe computers are mostly used by corporations, government agencies, and banks – organizations that need a way to store large quantities of information. They are not the same as supercomputers. Example : IBM Z series, PDP-10 and System Z 10.

3) Mini Computers

A minicomputer is a multiprocessing machine that can support up to about 200 users at the same time. It's like a less powerful mainframe computer, and is about the size of a refrigerator. Despite their name, a minicomputer is *not* a personal computer like the desktop machine you might have at home or work. They are much larger than that. They are used in banks, universities and in any other big organisations. Example : PDP-8.

4) Supercomputers

It's a term used to describe computers that have the most capable processing power of its time. Today, modern supercomputers run *hundreds* of thousands of processors, capable of computing quadrillions of calculations in just a few nanoseconds. You probably won't be needing that kind of power to access Facebook. Actually, supercomputers are used to calculate and carry out complex tasks. Modelling molecular structures, weather forecasting, satellite control and space research rely on supercomputers and their intense processing power to solve their equations. Examples : CRAY-1, CRAY-2, PARAM, ETA A-10 etc.

Q9. A monitor is also known as_____.

- a) VDV b) VDD c) VDU

Q10. MU stands for Memory_____.

- a) Unit b) Utility c) Unix

Very Short Questions:-

Q11. Name the three parts of CPU.

Q12. What are the three basic functions of computer system?

Q13. What is Input?

Q14. What is the full form of LED?

Q15. Which device is used to point, select and move objects on the computer screen?

Q16. Which part of a computer shows the output?

Q17. Name the types of monitors.

Q18. Name the device that is known as the brain of a computer.

Q19. How do you enter data and instructions into a computer?

Q20. Name the device that is used to control all activities of a computer.

Q21. Name the two components of Computer.

Q22. Name the types of Computer.

Short Questions:-

Q23. What do you understand by Computer?

Q24. What is Hardware?

Q25. Differentiate between the hard copy and soft copy.

Q26. What is the use of CPU?

Long Questions

Q27. Write the full form of following:

- a) **ALU-**
- b) **CU-**
- c) **IPO-**
- d) **CPU-**
- e) **IQ-**
- f) **LCD-**

Q28. Mention two advantages and two disadvantages of a computer.

Q29. Name the types of Computer. Explain any one.