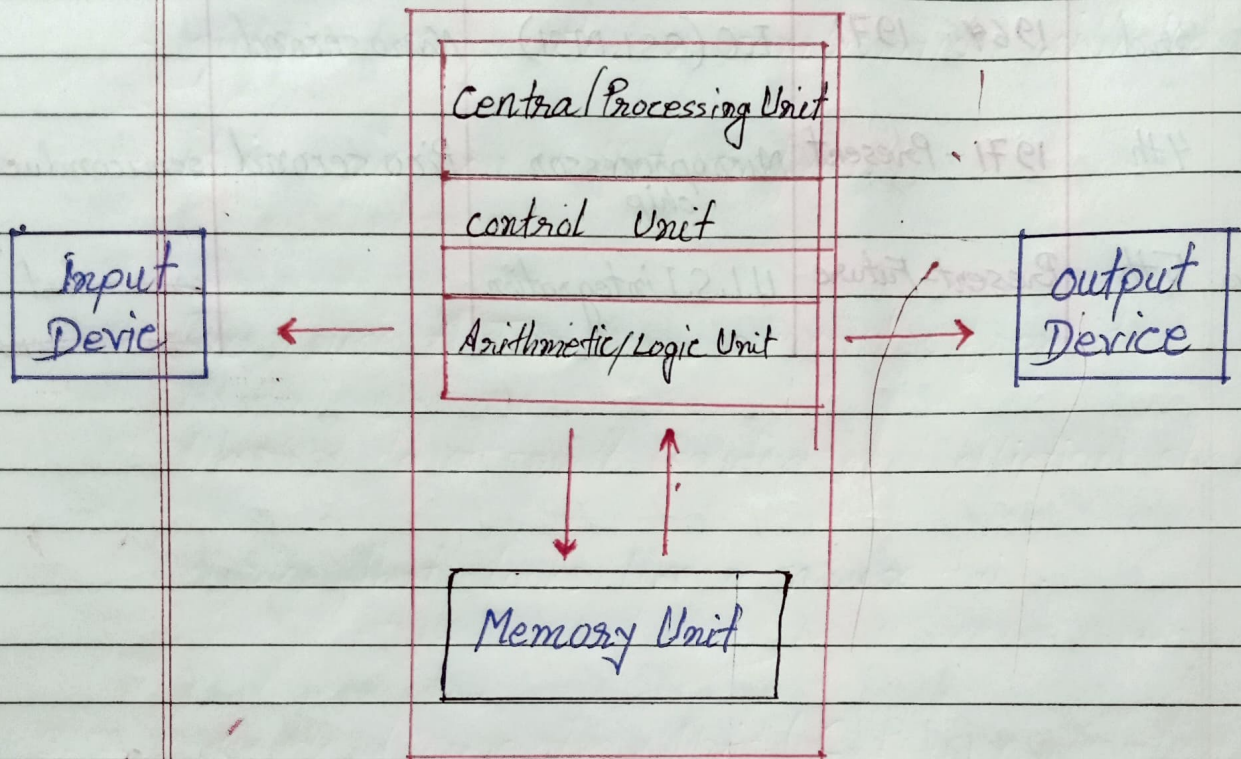


Unit. 1.2.1: Organization of a Computer.

—: Organization of a Computer :-



∴ Organization of a Computer :-

Computer organization is concerned with the way the hardware components operate and the way they are ~~connect~~ connected together to form the computer system.

∴ Input Devices: Computer system use many devices for input purpose.

→ Input devices include the mouse, input pen, touch screen and microphone.

→ Regardless of the type of device used, all are components for interpretation and communication between people & computer systems.

1//:- Some example of Input devices :-

1. ∴ keyboard :- is a human interface device which is represented as a layout of buttons. Each button or key can be used to either input a character to a computer, or to call upon a particular function of the computer.

2. ∴ Mouse :- A mouse is a small handheld input device that controls a computer screen's cursor or pointer in combination with the way it is moved on a flat surface.

∴ The mouse ~~A~~ Term name originates from its likeness to a small, corded and elliptical shaped device that looks like a mouse tail.

3. ∴ Central Processing Unit (C.P.U)

It is the brain of the computer. Computer can not process without it.

2 // Output device :-

Output device is used to show the result of the instructions.

example :- Monitor, printer, Headphones, etc.

(i) Monitor View :-

A Computer monitor is an output device that displays information in user understandable form.

(ii) Memory unit :- A memory unit is the collection of storage units or devices together. The memory unit stores the binary information in the form of bits.

Unit 1.2.2: Characteristics of Computer

-: Characteristics of Computer :-

1. Speed
2. Accuracy
3. Storage
4. Carefulness
5. Versatility
6. High Power of memory
7. No Feeling
8. No IQ (Intelligence Quotient)

1. **Speed**:- In general, no human being can compete to solve the complex computation, faster than computer.

2. **Accuracy**:- Since Computer is programmed, so whatever input we give, it gives result accurately.

3. **Storage**:- Computer can store mass storage of data with appropriate format.

4. Carefulness :- Computer can work for hours without creating any error.
5. Versatility :- We can use computer to perform completely different type of work at the same time.
6. High Power of Memory :- It can remember facts/data for us.
7. No Feeling :- Computer does not have emotions, knowledge experience and feeling.
8. No IQ (Intelligence Quotient) :-
Computer does not work without instruction.

Based on size and capacity, computers are classified as follows:

1. Super Computer.
2. Mainframe Computer.
3. Mini Computer.
4. Micro Computer.

1. Super Computer:-

- Supercomputers are the most powerful and physically the largest by size.
- These are systems designed to process huge amounts of data.
- The fastest supercomputers can perform over one trillion calculations in a second.
- Supercomputers have thousands of processors.

→ Because of their extraordinary speed, accuracy and processing power, supercomputers are well suited for solving highly complex problems & huge amounts of calculations.

Exam:- JAGUAR, ROADRUNNER etc.

2. Mainframe Computer.

- Mainframe computers are very large often filling an entire room and can process thousands of millions of instructions per second.
- In a mainframe environment, users connect to the mainframe through the many terminals wired to the mainframe.
- Mainframes are capable of supporting hundreds to thousands of users simultaneously.

- Some of the functions performed by a mainframe include: flight scheduling, reservations and ticketing for an airline etc.

Exam:- IBM Mainframes Z13, IBM System z9 Mainframe.

3. Minicomputers:-

- ~~Minicomputers~~ are also less expensive.
- Minicomputers are much smaller than mainframes.
- These computers are also less expensive.
- Sometimes referred to as Midrange Server or Midrange Computer.
- They are typically a larger, more powerful and more expensive than desktop computers.
- Midrange computers are usually used by small and medium-sized businesses as their server.

- Users connect to the server through a network by using desktop computers.

Exam:- Apple iPod, CDC 160A.

4. Microcomputers:-

- Microcomputers are the most frequently used type of computer.
- It is also known as Personal Computer (PC)
- A microcomputer is a small computer system designed to be used by one person at a time.

Exam:- Desktop computers, laptops.