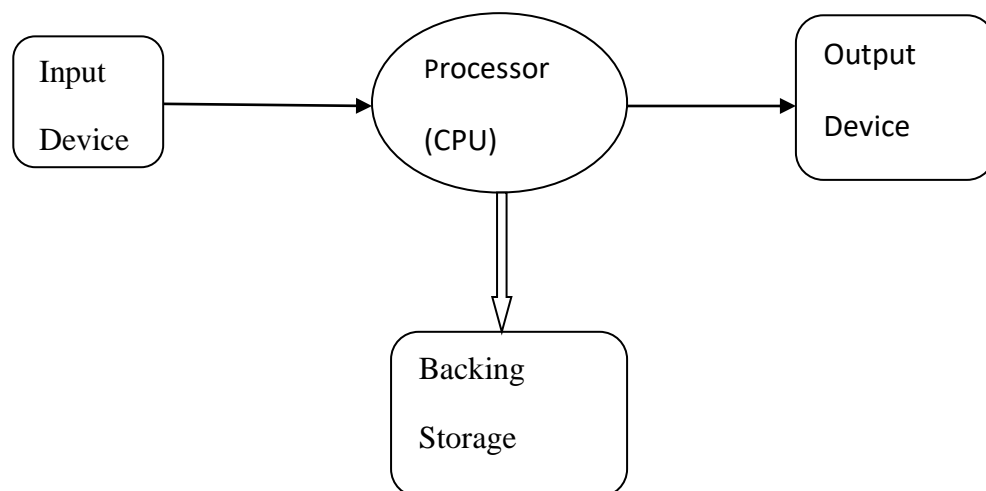# FUDENMENTAL OF IT & PROGRAMMING

INTRODUCTION OF COMPUTER

Computer

It is a programmable electronic device designed for storing and proceesing data,based on sequence of instruction A computer is a fast system that is organized to accept, store, and process data and produce out put results under he direction of a stored program of instruction.

Block Diagram of a Digital Computer

```
┌──────────┐          ╭──────────╮          ┌──────────┐
│ Input    │          │ Processor│          │ Output   │
│          │ ───────▶ │          │ ───────▶ │          │
│ Device   │          │ (CPU)    │          │ Device   │
└──────────┘          ╰────┬─────╯          └──────────┘
                           │
                           ▼
                      ┌──────────┐
                      │ Backing  │
                      │          │
                      │ Storage  │
                      └──────────┘
```

Characteristic of computer

- Speed
- Accuracy
- Storage
- Carefulness
- Versatility
- High power of money
- No feeling
- No IQ (intelligence quitient)

- Speed: In genral, no human being can complete
To solve the complex computation, faster than computer.

- Accuracy: since computer is programmed, so
Whatever input we give,it gives result accurately.

- STORAGE: Computer can store mass storage
- of data with appropriate format.

- Carefulness: Computer can work for hours
- without creating any error
    .
- VERSATILITY: we can use computer to perform
Completely different type of work at the same time

- High power of memory: it can remember
Fact/data for us.

- No feeling: Compuer dose not have emotions,
Knowledge experience and felling.

Microcomputer

- Microcomputer are the most frequently used type
Type of computer
- It is also, known as personal computer (pc)
- A microcomputer is a small computer system designed
To be used by one peson at a time
- EXAMPLE: Desktop computer,laptops

Type of memory

Computer memory is of two basic type

- Primary memory/volatile memory:
- Secondary memory/Non volatile memory

1. Primary memory /volatile memory:Volatilememory is a computer storage
   that only maintains its data while the device is powered.

    Example:RAM (Random access memory) is volatile. When we arE
   working on a document, it is kept in RAM, and if the computer losses power,
   your work will be lost

2.Secondary memory/non-volatile memory:Non-volatile memory is atype of computer memory that has the has the capability to hold saved data even if

The power is turned off.
Example:Read- only memory (ROM),hard disk,flopped disk etc
.

Random access memory

- It is a lso called as read write memory or the mani memory or the primary memory

- The programs and data that the CPU requires during execution of a program are stored in this memory.

- It is a volatile memory as the data loses when the power is turned off.

- RAM is further classified into two types-SRAM (Static Random Access Memory)and DRAM (Dynamic Random Access Memory).
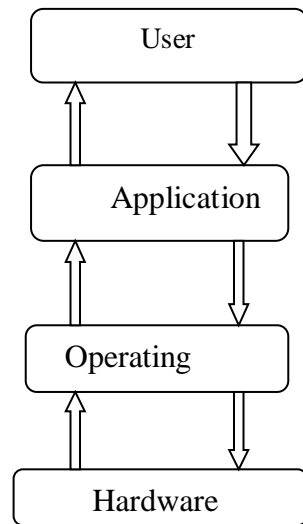
UNIVERSAL SERIAL BUS

- A Universal serial bus (USB) is a common interface that enables communication between devices and a host controller such as a personal computer(PC).

- It connects peripheral devices such as digitals camera, mice, keyboards, printers, scanners,media devices, external hard driver and flash drivers.

Operating system(os)

- It is system software that manages computer hardware and software resources and Provides service.
- Operating system acts as maager of all the resources of computer i.e. resource manger.
Thus, operating system becomes an interface between user and machine

Operating System Representation

```
        ┌──────────────┐
        │     User     │
        └──────────────┘
          ↑         ↓
        ┌──────────────┐
        │  Application │
        └──────────────┘
          ↑         ↓
        ┌──────────────┐
        │  Operating   │
        └──────────────┘
          ↑         ↓
        ┌──────────────┐
        │   Hardware   │
        └──────────────┘
```

S

Application of Software

- It is software created for a specific purpose, used by end user. It can be called application or simply an app.
- Example: word processor, accounting application, a web browser, an email client, media player etc.