# FANDAMENTAL OF IT AND PROGRAMING

# Introduction to programming

- Programming language \_\_\_ machine language
- > Introduction of computer

Definition, evolution, characteristic, organization of a computer, classification, distribute computer, parallel computer

# > Computer

- It is a programmable electronic device designed for storing and processing data, based on sequence of instruction.
- A computer is a fast system that is organized to accept store and process data and produce output result under the direction of a stored program of initiations.

| Input   | processor | output  |
|---------|-----------|---------|
| Devices | (CPU)     | devices |
|         | backing   |         |

#### Storage

# Block diagram of a digital computer

- The evolution of digital computing is often divided in to generation
- Each generation is characterized by dramatic improvement over the period generation in the technology used to build computer in terms of the internal organization of computer and programming .
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### Five generation of computer

- First generation 1940-1956
- Second generation 1956-1964
- Third generation 1964--1971
- Fourth generation 1971- present
- ➢ Fifth generation

# > Output device

• Output devices are used to show the result of the instruction.

Example: - monitor, printer, Iteadphone etc.

#### Input device

• In computing an input device is a piece of equipment used to provide data and control signals to an information processing system such as a computer or information appliance.

Example: - key boards, mouse, and cameras

### > Monitor view

• A computer monitor is an output device that displays information in user understands form.

# > Characteristics of computer

- Speed
- Accuracy
- Storage
- No feeling
- carefulness
- versatility

#### > Speed

• In general no human being cans complex computation, faster than complex.

#### > Storage

Computer can store mass storage of data with appropriate format.

#### > Carefulness

• Computer can work hour without creating any cruor.

#### > Versatility

• We can use computer to perform completely different types of work at the same time .

# > High power of memory

- It can remember facts /data for us.
- > No feeling
- Computer does not have emotions , knowledge, experience no feeling
- > Comparison :RAM and ROM

| RAM  | ROM                                    |
|--|--|
| <ul><li>Temporary storage</li><li>Store data in mobs</li></ul> | permanent storage<br>store data in its |
| Volatile   | non – volatile                         |
| <ul> <li>Used in normal operati<br/>computer</li> </ul>        | ons used for start-up process of       |

• Writing data is faster

writing data is shoving.



# Types of memory

> Computer memory is of two basic types.

- Primary memory /volatile memory
- Seconetary memory /non volatile memory

# Primary memory /volatile memory

Volatile memory is a computer storage that only maintains its data while the devices are powered.

Example: - ram

### Secondary memory /non -volatile memory

Non-volatile memory is types of computer memory that has the capability to hold saved data even if the power is turned off.

Example :- rom