

AL- MUSTAQBAL UNIVERSITY COLLEGE



Computer basics

Computer components

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OUTLINES

- **Primary Memory**
- **Secondary Memory**
- **Units of Measurement**

PRIMARY MEMORY

1- RAM: Random Access Memory (RAM) is a memory scheme within the computer system responsible for storing data on a temporary basis, so that it can be promptly accessed by the processor as and when needed.

It is volatile in nature, which means that data will be erased once supply to the storage device is turned off.

RAM stores data randomly and the processor accesses these data randomly from the RAM storage.



PRIMARY MEMORY

2- ROM (Read Only Memory):

ROM is a permanent form of storage.

ROM stays active regardless of whether power supply to it is turned on or off.

ROM devices do not allow data stored on them to be modified.



SECONDARY MEMORY

Stores data and programs permanently: its retained after the power is turned off

1. **Hard drive (HD):** A hard disk is part of a unit, often called a "disk drive," "hard drive," or "hard disk drive," that store and provides relatively quick access to large amounts of data on an electromagnetically charged surface or set of surfaces.
2. **Optical Disk:** an optical disc drive (ODD) is a disk drive that uses laser light as part of the process of reading or writing data to or from optical discs
3. **Flash Disk:** A storage module made of flash memory chips.

Hard drive (HD)



Optical Disk



Flash Disk



UNITS OF MEASUREMENT

Storage measurements: The basic unit used in computer data storage is called **a bit** (binary digit).

Computers use these little bits, which are composed of **ones and zeros**, to do things and talk to other computers. This two number system, is called a “**binary number system**” since it has only two numbers in it.

Bit	BIT	0 or 1
Kilobyte	KB	1024 bytes
Megabyte	MB	1024 kilobytes
Gigabyte	GB	1024 megabytes
Terabyte	TB	1024 gigabytes

UNITS OF MEASUREMENT

Speed measurement: The speed of Central Processing Unit (CPU) is measured by Hertz(Hz), Which represent a CPU cycle. The speed of CPU is known as **Computer Speed**.

CPU SPEED MEASURES	
1 hertz or Hz	1 cycle per second
1 MHz	1 million cycles per second or 1000 Hz
1 GHz	1 billion cycles per second or 1000 MHz

Any question.....?