

COMPUTER

FUNCTIONAL DEFINITION

It is an electronic data processing device which can read and write, compute and compare, store and process large amount of data with high speed, accuracy and reliability.

STRUCTURAL DEFINITION

It is a collection of hardware and software where hardware is that part of computer which we can see and touch like keyboard, mouse etc. and software are those parts which we can only see but cannot touch like windows. We can only feel that we are working on the software.

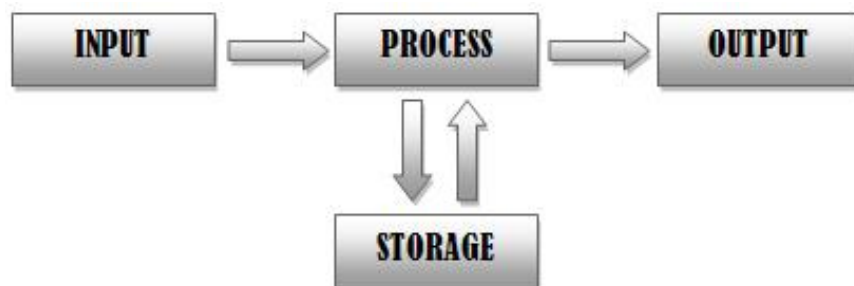
DATA AND INFORMATION

Data is the collection of raw facts and figures like "VIVEK", "2018" "GTB" etc., It is meaningless, Whereas Information is the processed form of given data. It is meaningful Like "Vivek Join GTB In 2018".

IPO CYCLE

Computer follows an Input - Process - Output cycle in which we give some raw facts i.e. data as Input and then computer perform some operations on data as process and finally information as a result is given by the computer called as output.

For example $2 + 3 = 5$, Here 2 and 3 is the raw data as input, + is the process done by the computer on 2 and 3, and finally 5 is the result as output. The storage or the memory unit store the input and the output values.



HARDWARE UNIT

According to the type of work they do, the hardware are divided into following categories.

Input Unit	Output Unit	Memory Unit	CPU	Other Devices
Use to take raw data as Input from the user.	Use to show processed information as output to the user.	Use to store data & information for future reference	Use to perform all the operational processes of the computer.	Use to perform other different tasks of the computer.
<ol style="list-style-type: none"> 1. Keyboard 2. Mouse 3. Joystick 4. Microphone 5. Scanner 6. Digital Camera 7. Light pen 8. MICR 9. OCR 10. OMR 11. BCR 12. Touch Screen 13. Graphic Tablet 14. Smart Card Reader 15. Biometric Sensors 	<ol style="list-style-type: none"> 1. VDU 2. LCD Projector 3. LED 4. Printers 5. Plotters 6. Speakers 7. Headphone 	<ol style="list-style-type: none"> 1. Primary <ol style="list-style-type: none"> a) RAM <ul style="list-style-type: none"> • Static • Dynamic b) ROM <ul style="list-style-type: none"> • PROM • EPROM • EEPROM c) CACHE 2. Secondary <ol style="list-style-type: none"> a) Magnetic Tapes b) Floppy Disk c) CD-ROM d) DVD-ROM e) Hard disk f) Pen Drive g) Data Card 	<ol style="list-style-type: none"> 1. Arithmetical Unit 2. Logical Unit 3. Control Unit 4. Memory 	<ol style="list-style-type: none"> 1. Cabinet 2. Motherboard 3. LAN Card 4. Display Card 5. Sound Card 6. Ethernet Card 7. TV Tuning Card 8. FM Card 9. Modem 10. SMPS 11. FANS 12. UPS

INPUT UNITS --USE TO TAKE RAW DATA AS INPUT FROM THE USER.

Keyboard It is used to take data from the user by typing the text.

Mouse It is a pointing device which moves the cursor on the screen and take the commands by clicking.

Joystick It is used to play multimedia games.

Microphone It is used to record voice and other sounds as input in the system.

Scanner It is an input device like photocopier which creates an electronic form of printed image on the system.

Digital Camera Camera that stores images digitally rather than recording them on a film is digital camera.

Light pen It is a pointing device which consists of a photocell which identifies pixels on the screen. It is used to draw images on the screen like in cricket match.

MICR **Magnetic Ink Character Reader**
It is mostly used in banks; branch code, account no. and cheque no. are pre-printed at the bottom of the cheque with Magnetic Ink. These details are read by MICR.

OCR **Optical Character Reader**
It is used to scan a printed page and read its contents to make it in digital form.

OMR **Optical Marker Reader**
In this method special pre-printed forms are designed with boxes and which can be marked with a dark pencil or ink. This method is used in objective type answer papers.

BCR **Bar Code Reader**
It is a pattern of printed bars on various types of products. A bar code reader emits

a beam of light which reflects off the bar code image to identify the product type.

**Touch
Screen**

A type of display screen that has a touch sensitive transparent panel covering the screen. We can use direct fingers to point on the screen.

**Graphic
Tablet**

It is a high tech. drawing tool which allows computer user to draw, sketch, and create master pieces on the computer with the help of a pressure sensitive pen - Stylus and a light weight electromagnetic tablet.

**SmartCard
Reader**

A card that contains a microprocessor that retains certain security and personal data in its memory.

**Biometric
Sensors**

These are the input devices used for identifying a person's identity by measuring a unique to the individual biological trait like dynamic signatures , retinal / iris scanning, DNA verification, voice recognition and figure print identification.