

DEFINITION OF A COMPUTER

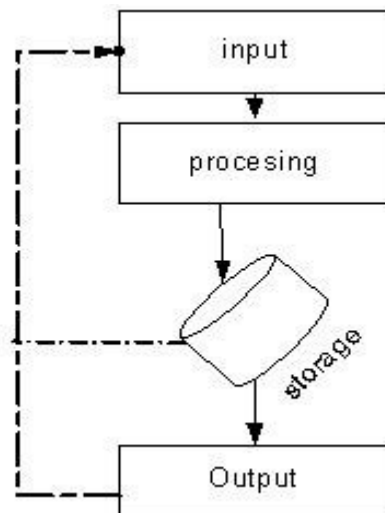


computer front view

In simple terms a computer is a machine that processes data into information, a computer can also be described as an electronic device that saves, transmits and processes data into information using electrical signals. The physical parts of a computer include: Mouse, Keyboard, system unit and screen.

COMMON TERMINOLOGIES USED IN COMPUTER

When data is processed into information, the following stages are involved



Computer functions

Data- it simply refers to raw alphanumeric values which have no much meaning to the user.
//raw here stands for unprocessed

Information-is a sequence of numbers and characters which can be interpreted as having meaning. Information can also be described as processed data

A computer Program- is a sequence of instructions written to perform a specified task with a computer.

Input stage- this stage involves entering data into the computer using input devices i.e. keyboard

Processing- this stage involves manipulating of data using processing devices i.e. the CPU

Output stage- this stage involves the processing outcome that will be displayed by output devices i.e. the screen

PARTS OF A COMPUTER

System Unit -this part consists of the CPU and the Motherboard. It also houses drives (used to read/write disks) and cards (used to support peripheral devices).

//many students confuse between the CPU and the system Unit. either way a CPU is a processing gadget housed inside the system unit and the system unit is a combination of electronic gadget attached together in a box like cage these devices include: Drives, Mother Board (System Board), Cards i.e VGA, CPU, Ports e.t.c

The CPU works with the help of the motherboard and other devices like the Hard disk drive and the random access memory to process and store information. Attached on the motherboard are devices like Resistors, Capacitors, inductors, integrated circuits, transducers and so much more.

Peripheral Devices- these are devices connected to the system unit via communication media i.e. interface cables and wireless means. The cables are attached to the system unit using special sockets called ports, while wireless peripheral devices use light rays (optical means) and magnetic spectrum to connect to the system unit i.e. infrared rays.

EXAMPLES OF PERIPHERAL DEVICES

Keyboard- this peripheral device looks like a typewriter. It is used to enter data into the computer in form of characters, symbols and instructions. Therefore, the keyboard is an input device.

Mouse- this is a pointing device that enable the user to enter commands in a computer. To input a command, the user moves the mouse which also moves the pointer on the screen. The pointer is then clicked on icons and controls to issue commands.

Monitor- the monitor is also called screen or visual display unit (VDU). This output device enables the user to see what is happening in the system unit.

Modem- the word modem is derived from modulation (converting a digital signal to analogue) and demodulation (converting an analogue signal into digital). This device connects the computer user to the Internet.

Printer- this is an output device which converts softcopy (intangible data) into hard copy (tangible data).

TOPICAL QUESTIONS

INTRODUCTION TO COMPUTERS

QUESTIONS

1.
 - (a) Clearly define a computer
 - (b) Give one reason why a computer is referred to as an electronic device
2. Explain the following terms as used in computer science
 - (i) Data
 - (ii) Program
 - (iii) Data processing
 - (iv) Information
3. State any three functions of a computer
4. Explain the following input/ output terms as used in computer systems. Give an example in each
5. State four different parts that makeup a computer
6. List three stages data passes through to transform into information
7.
 - (a) Explain the term system Unit
 - (b) List four devices located under the cover of the system unit
8. A computer program (S) is also known as?
9. List any ten devices other than a real computer that processes data into information
10. MODEM Stands for?

ANSWERS

1. (a) Clearly define a computer

- A computer is an electronic device that operates (works) under the control of programs stored in its own memory unit
- An electronic device that accepts data, as input and transforms it under the influence of a set of special instructions called programs, to produce the desired output (referred to as information)

(b) Give one reason why a computer is referred to as an electronic device

- It uses electrical signals to process data
- It is made up of electronic components and uses electric energy to operate

2. Explain the following terms as used in computer science

(i) Data

A collection of raw facts, figures or instructions that do not have much meaning to the user

(ii) Program

A computer program is a set of related instructions which specify how data is to be processed

A set of instructions used to guide a computer through a process

(iii) Data processing

It is the process of collecting all terms of data together & converting them into information

(iv) Information

Data which has been refined summarized & manipulated in the way you want it, or into a more meaningful form for decision- making

3. State any three functions of a computer

- Accepting data
- Processing the data
- Producing information

4. Explain the following input/ output terms as used in computer systems. Give an example for each

(a) Read - To transfer data from an input device to the computer, e.g. the computer that reads data from a disk, a keyboard, etc

- To move or copy data from backing storage to the main Storage

(b) Write - To transfer information from the computer to an output Device e.g. the computer writes output on a printer or onto a disk.

- To move or copy data from the main storage to a backing storage

5. State four different parts that make up a computer (2 mks)

- System unit

- Monitor

- Keyboard

- Mouse

- Printer

- Modem

- Scanner

- Speakers

- Graph plotters

6. Input - processing - output

7. (a) Explain the term system Unit

This is the casing that houses the internal components of the computer such as the CPU and storage devices

(b) List four devices located under the cover of the system unit

- Central processing Unit (CPU)

- Motherboard

- Power supply unit

- Main memory

- Hard disk

- Disk drives

- Battery

- Buses
 - Input/ output ports
 - Video card
 - Expansion slots
8. Software / A computer instruction / a computer Application
 9. Mobile phone, TV, radio, weighing machine, thermometer, watch, printer, scanner, photocopy, x-ray machine, microwave, dry cleaner, fridge, modern gas cookers, TV box, decoders etc.
 10. Modulation and Demodulation -converting of digital data into analogue and vice versa