Functionalities of a computer

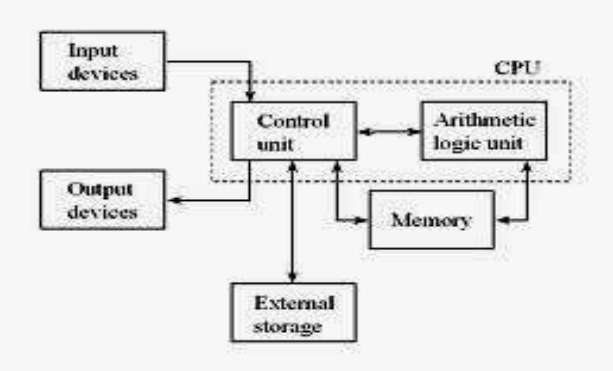
Any digital computer carries out five functions in gross terms:

a. Takes data as input.
b. Stores the data/instructions in its memory and use them when required.
c. Processes the data and converts it into useful information.
d. Generates the output
e. Controls all the above four steps.

Input→Process→Output

Input Unit :

Input is the raw information entered into a computer from the input devices. It is the collection of letters, numbers, images etc.



Process Unit:

The task of a processing unit is to process data. It obtains data from the input unit, performs the necessary calculation, comparisons to produce the result. This unit is often called the central processing unit (CPU) and consists of three sub-units – ALU, CU & MU. Processors, co-processors, Memory cards etc. constitute this unit.

ALU

ALU stands for *Arithmetic and Logical Unit*. This is the calculating unit of a computer system. The actual instructions execute in ALU. It performs mathematical manipulation, logical and comparative analysis. By mathematical manipulation, I mean, it performs the operations such as addition, subtraction, and multiplication. Similarly by logical and comparative analysis you should understand that it performs logical operations based on AND, OR and NOT functions. The comparative analysis consists of comparison, for example, whether one is equal or less or greater than another number.

CU

CU stands for *Control Unit*. It is a sub-unit of CPU that controls and directs the flow of information throughout the computer system. So, it is also known as the nerve centre of a computer system. It is the job of CU to fetch instructions, decode them and execute.

MU

The input data, instructions and output are stored permanently in the secondary storage devices like disk or tape. The stored data can be retrieved later, whenever needed.

Output Unit:

Output is the processed data given by computer after data processing. Output is also called as Result. We can save these results in the storage devices for the future use.