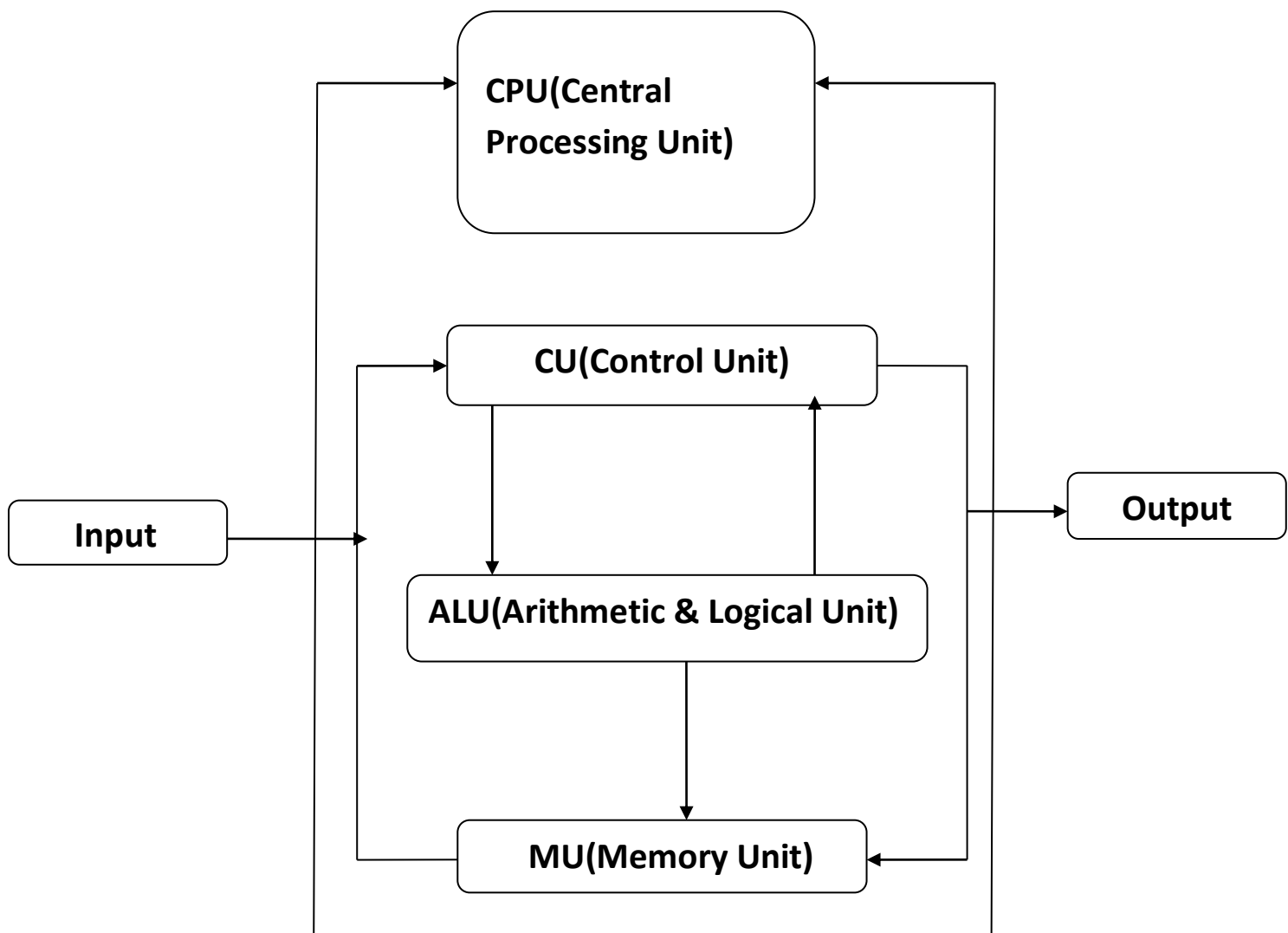


*****Basic Block Diagram of Computer*****

A computer can process data, pictures, sound and graphics. The diagram that illustrates the primary components of the computer system is known as the block diagram of the computer. The basic definition of the computer system is that it takes some data then it processes it and then it produces the final outcome and this is what the block diagram shows. A block diagram of computer displays a structural representation of a computer system. The block diagram of gives a quick overview of the working process of a computer from inputting the data to retrieving the desired results.

The following diagram represents:-



Input:- All the data received by the computer goes through the input unit. The input unit comprises different devices like a mouse, keyboard, scanner, etc. In other words, each of these devices acts as a mediator between the users and the computer.

The data that is to be processed is put through the input unit. The computer accepts the raw data in binary form. It then processes the data and produces the desired output.

The three major functions of the input unit are-

1. Take the data to be processed by the user.
 2. Convert the given data into machine-readable form.
 3. And then, transmit the converted data into the main memory of the computer.
- The sole purpose is to connect the user and the computer. In addition, this creates easy communication between them.

CPU:-

The Central Processing Unit (CPU) is called "the brain of computer" as it controls operation of all parts of computer. It works the same way a human brain works. As the brain controls all human activities, similarly the CPU controls all the tasks. The Central Processing Unit is the core of any computer devices. CPU controls the operation of a computer as well as performs its data processing functions. CPU is often simply referred to as processor. A program is a set of instructions that tells the computer how to accomplish a specific task, such as sending a file to the printer, opening a browser window, or playing music or video.

ALU(Arithmetic & Logical Unit):-

ALU performs the computer's data processing functions. As the name suggests, all the mathematical calculations or arithmetic operations are performed in the Arithmetic and Logical Unit of the CPU.

It can also perform actions like a comparison of data and decision-making actions. The ALU comprises circuits using which addition, subtraction, multiplication, division and other numerical based calculations can be performed

Data entered into computer is sent to RAM, from where it is then sent to ALU, where rest of data processing takes place. All types of processing, such as comparisons, decision-making and processing of non-numeric information takes place here and once again data is moved to RAM.

Control Unit:-

The control unit as the name suggests is the controller of all the tasks and operations. All this is performed inside the computer.

The memory unit sends a set of instructions to the control unit. Then the control unit in turn converts those instructions. After that these instructions are converted to control signals.

These control signals help in prioritizing and scheduling activities. Thus, the control unit coordinates the tasks inside the computer in sync with the input and output units.

Memory Unit:-

All the data that has to be processed or has been processed is stored in the memory unit. The memory unit acts as a hub of all the data. It transmits it to the required part of the computer whenever necessary.

The memory unit works in sync with the CPU. This helps in faster accessing and processing of the data.

There are two types of computer memory-

1. **Primary memory** – This type of memory cannot store a vast amount of data. Therefore, it is only used to store recent data. The data stored in this is temporary. It can get erased once the power is switched off. Therefore, is also called temporary memory or main memory.

RAM stands for Random Access Memory. It is an example of primary memory. This memory is directly accessible by the CPU. It is used for reading and writing purposes. For data to be processed, it has to be first transferred to the RAM and then to the CPU.

2. **Secondary memory** – As explained above, the primary memory stores temporary data. Thus it cannot be accessed in the future. For permanent storage purposes, secondary memory is used. It is also called permanent memory or auxiliary memory. The hard disk is an example of secondary memory. Even in a power failure data does not get erased easily.

Output:-

All the information sent to the computer once processed is received by the user through the output unit. Devices like printers, monitors, projectors, etc. all come under the output unit.

The output unit displays the data either in the form of a soft copy or a hard copy. The printer is for the hard copy. The monitor is for the display. The output unit accepts the data in binary form from the computer. It then converts it into a readable form for the user.