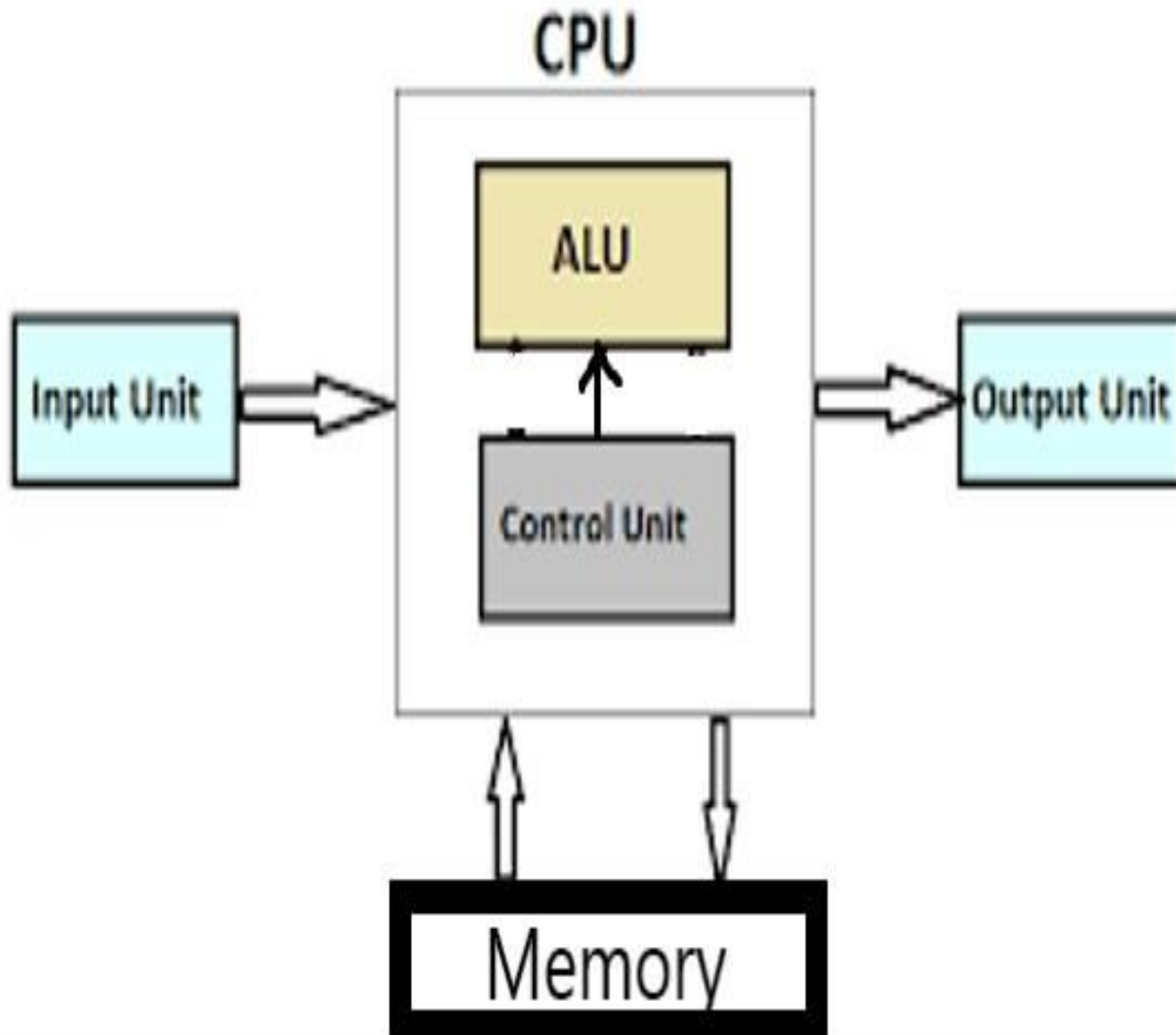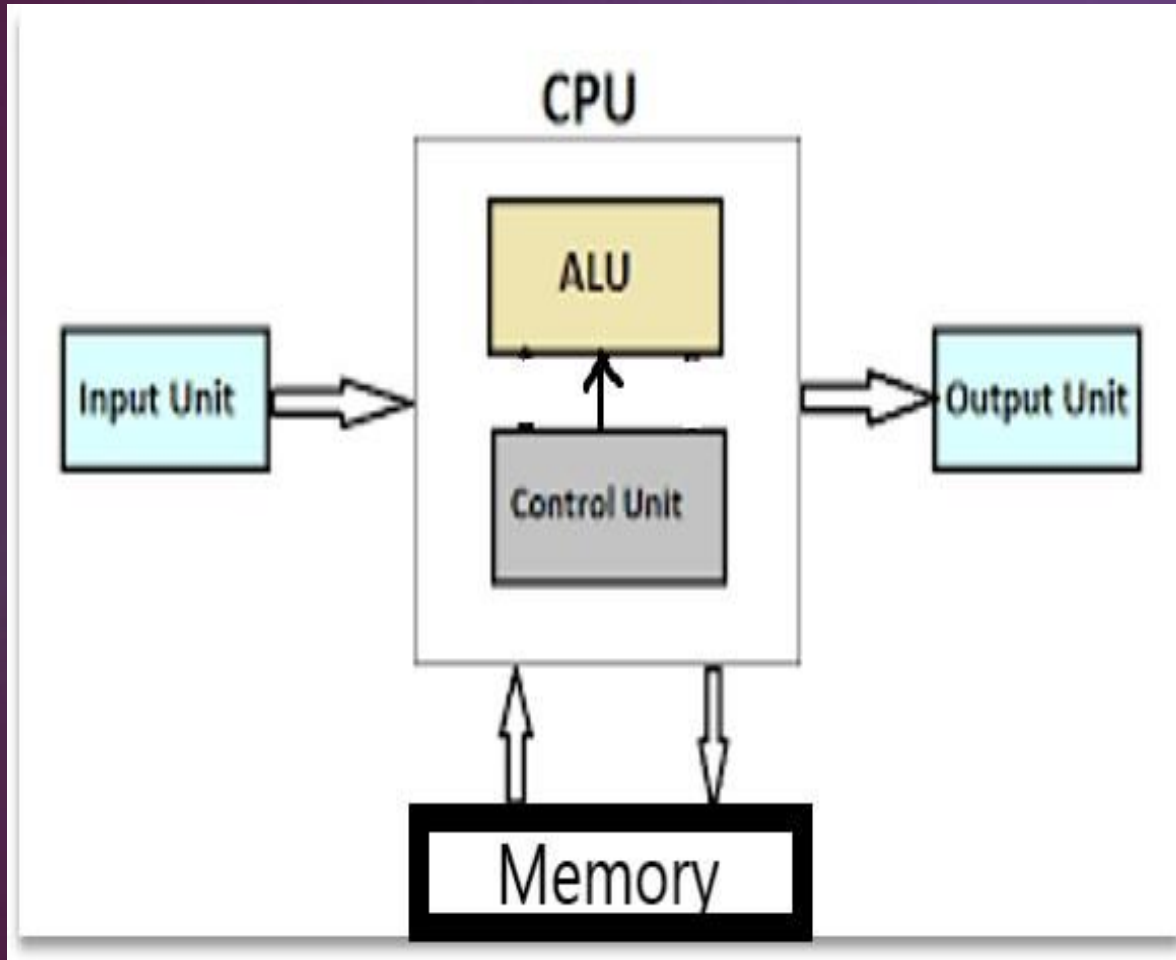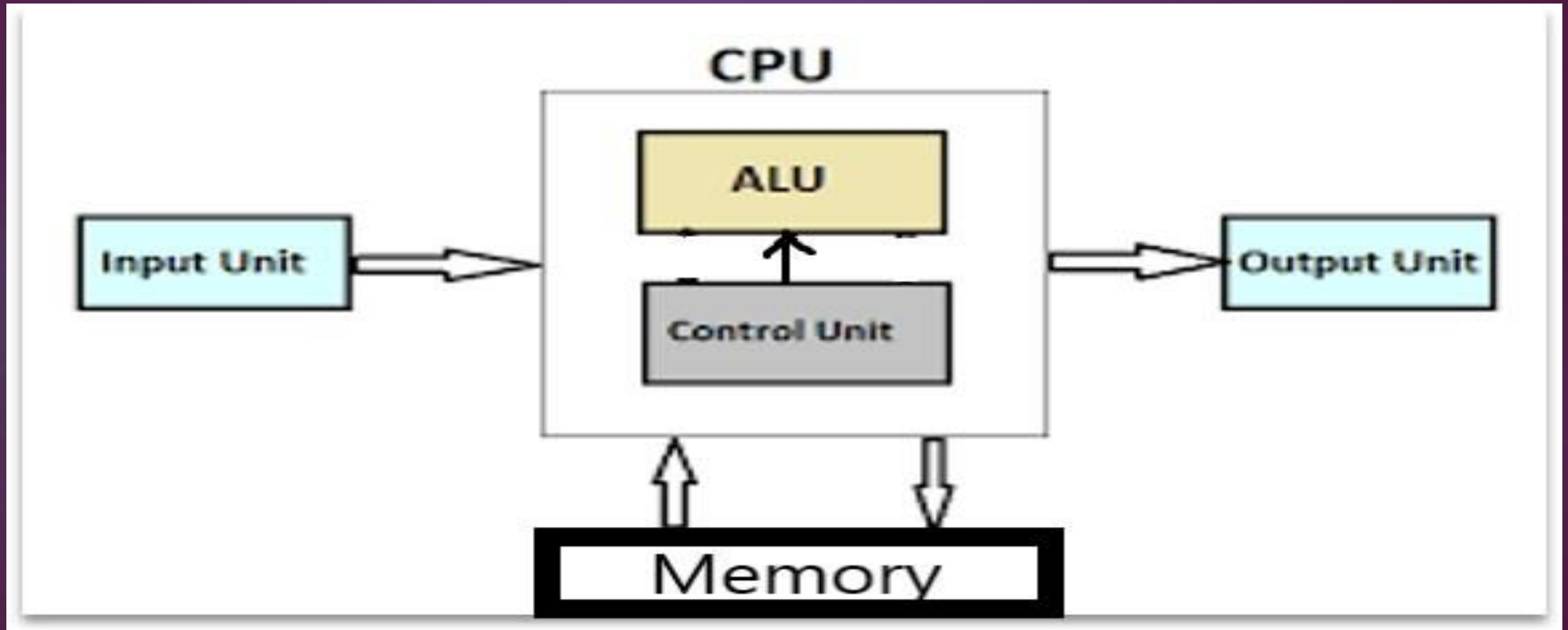# Computer Fundamentals

Block diagram of computer

Block diagram of computer

- ► CPU : Central Processing Unit

- ► ALU : Arithmetic and Logic Unit

- ► CU : Control Unit

# Interaction between CPU ,memory and input/output devices

# Interaction between CPU,memory and input/output devices

➤ Input device input data into computer like data entry through keyboard.

➤ Data is then processed by the central processing unit(CPU).

➤ Random access memory (RAM) is used for processing.

➤ information is displayed through the output device, like on monitor.

➤ Data and information can be stored in computer's memory called secondary memory, like on hard disk.

➤ Secondary memory of computer includes hard disk, compact disk(CD), digital versatile disk(DVD), pendrive ,memory card etc.

Function of CPU and major functional parts of CPU.
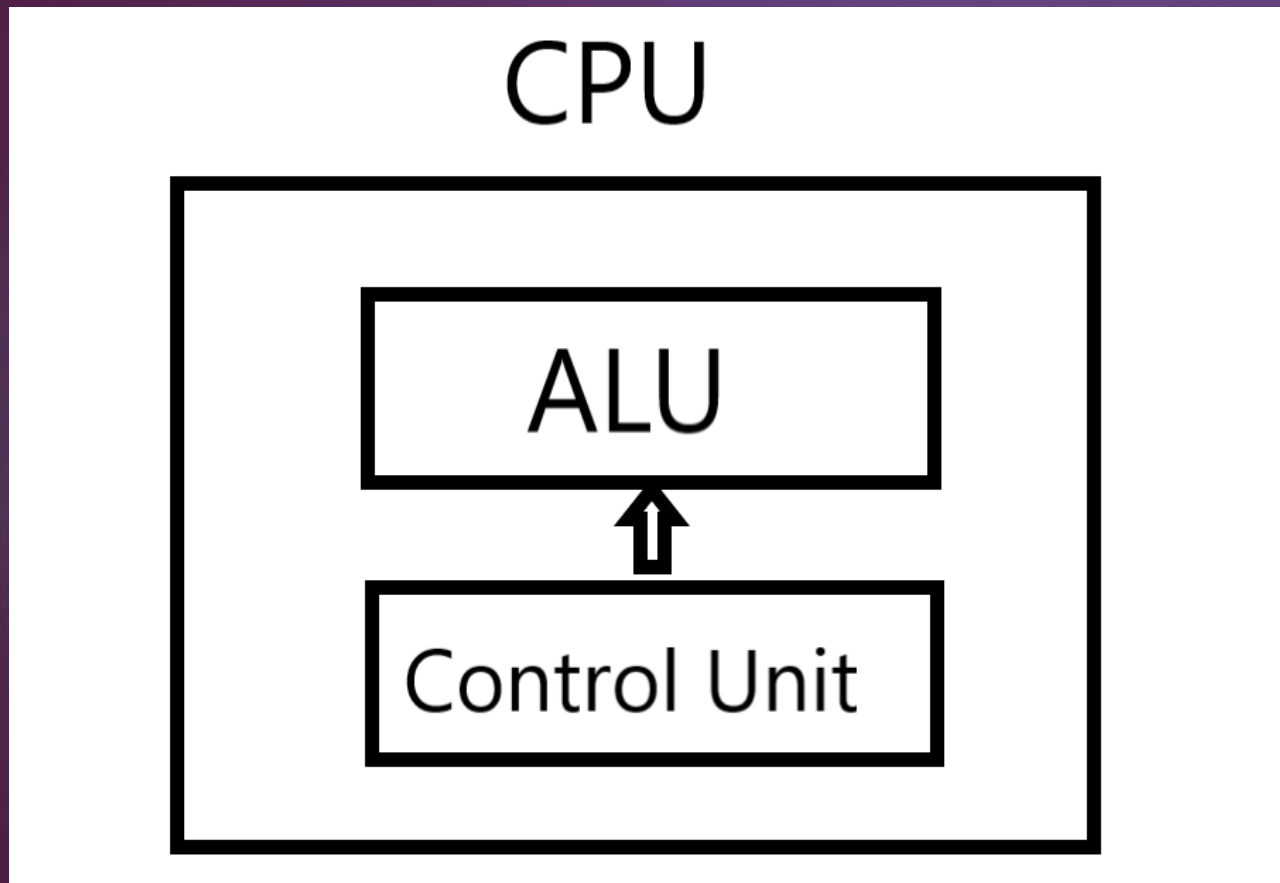
- ► CPU : Central Processing Unit

- ► ALU : Arithmetic and Logic Unit

Function of memory
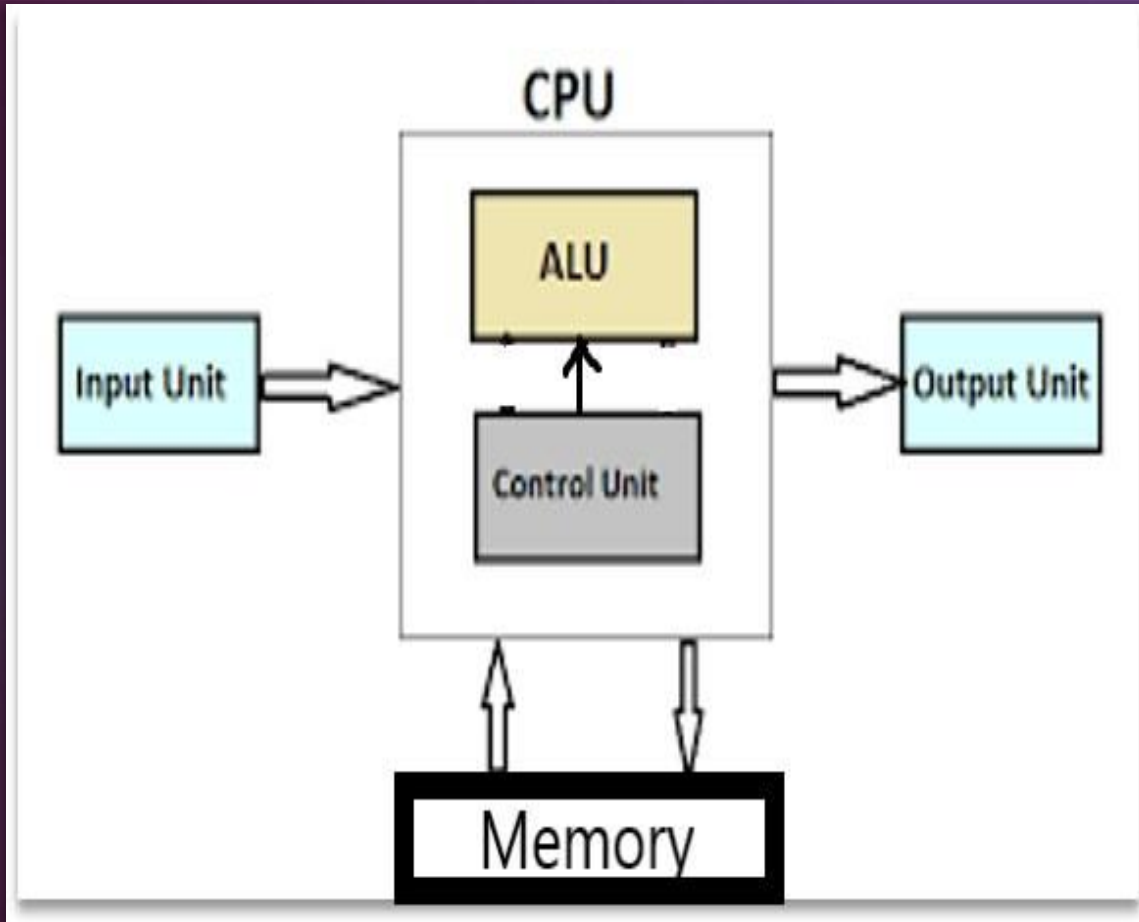
- Computer memory is used for processing data.
- Primary memory processes data.
- When data is input to the computer it is processed according to the program instructions.
- Memory stores data also.
- Like text file, audio file, video file, image file.
- Data is stored on secondary memory. Secondary memory includes harddisk, CD, DVD, pendrive , memory card etc.

Describe the function of input output devices

▸ **Input device**

➤ Input device are used to input data to the computer.

➤ Keyboard, mouse, scanner, joystick, lightpen ,touchscreen ,optical character recognition (OCR) etc.

Input device

Input device

Output device

- ► Output device are used to display data.

- ► E.g. Monitor , printer , plotter.

- ► There are two broad categories of the output from computers
- ► Soft copy
- ► Hard copy

Output device

CRT Monitor	TFT Monitor	Laser Printer	Inkjet Printer
Dot Matrix Printer		Speakers	
Plotters		Multimedia Projectors	

Output device

Relevance of speed and word length for CPU performance

- **Wordlength**

  - Wordlength is the number of bits a CPU can process simultaneously. For example a 32 bit processor is faster than that of 16 bit processor.

    Speed

  - Speed refers to the clock speed of the processor.

    Relevance of speed and word length for CPU performance

  - The computer with more processor clock speed and word length has higher performance than the computer with less wordlength and processor clock speed.