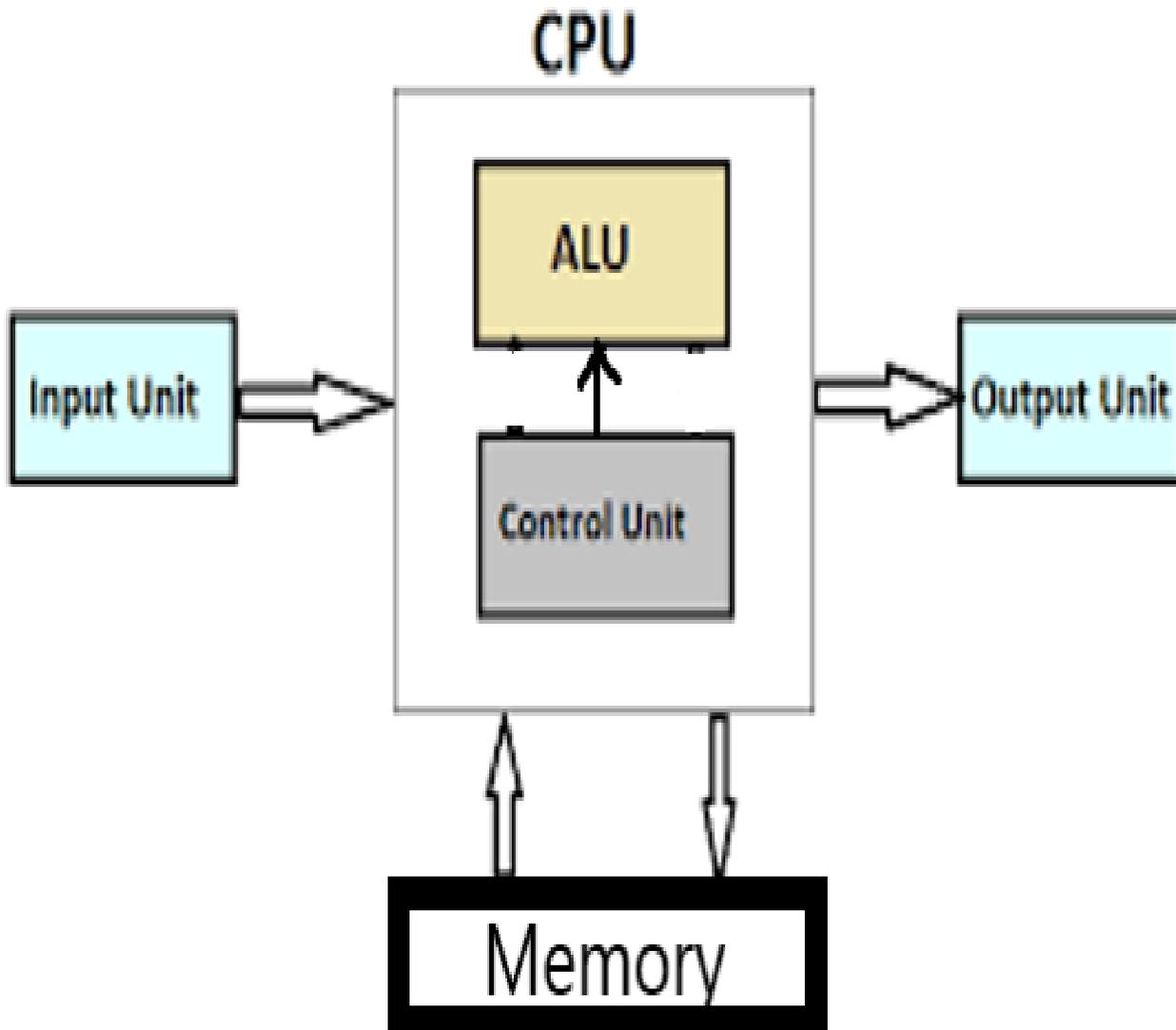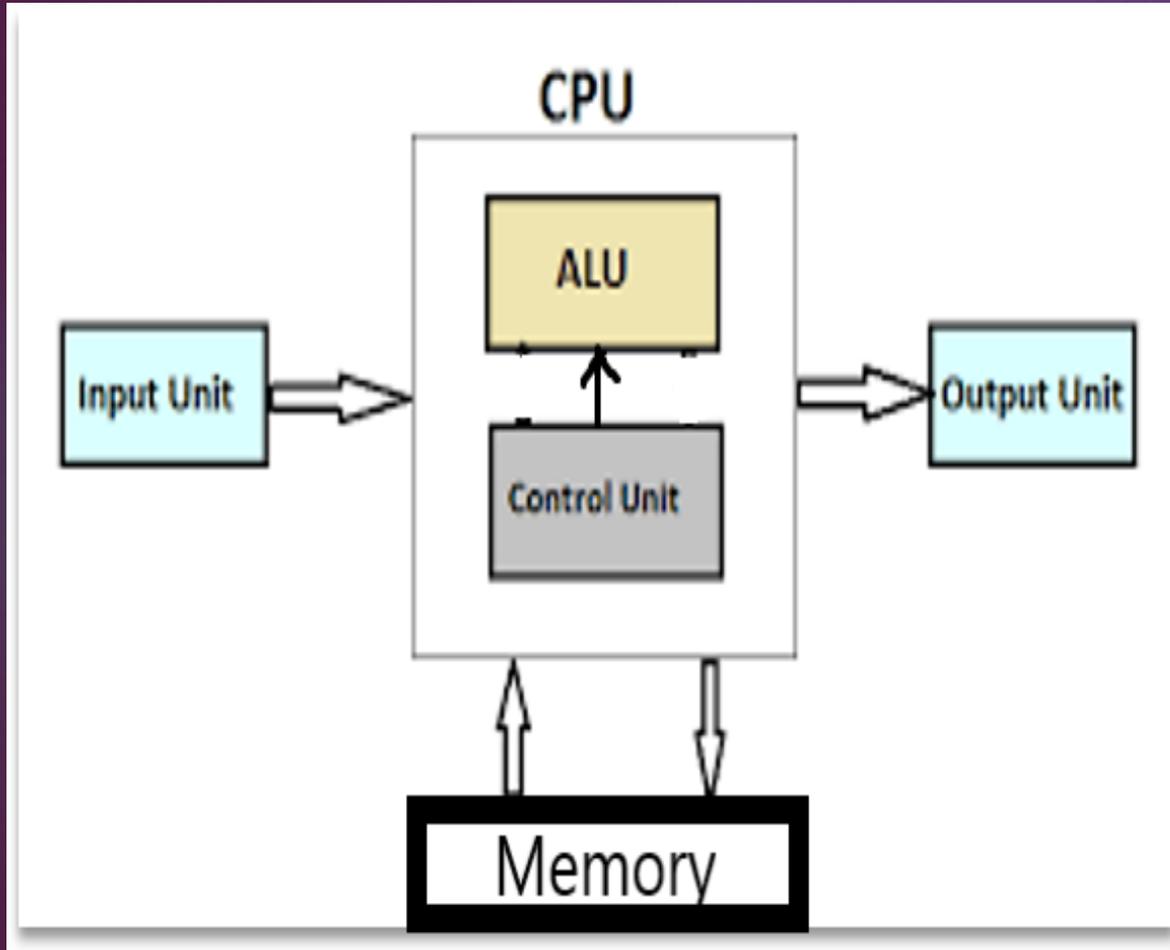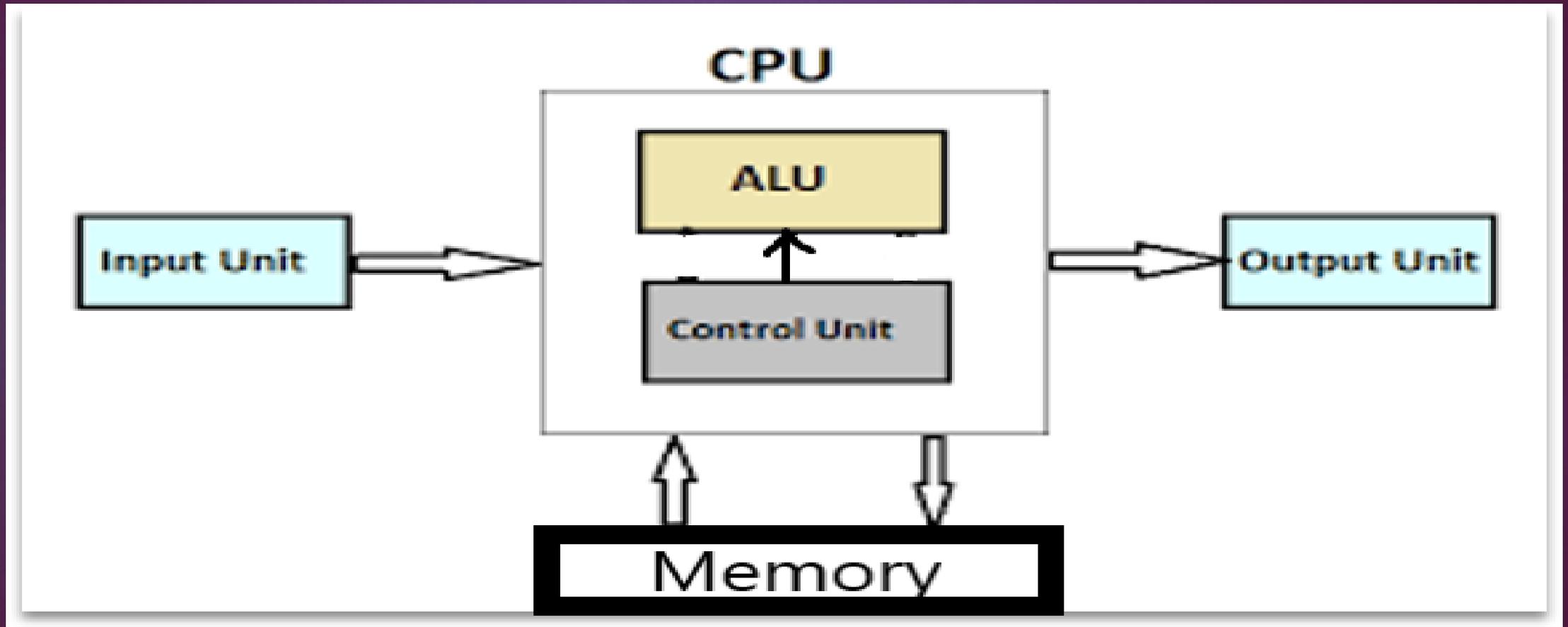# Computer Fundamentals

Block diagram of computer

# Block diagram of computer



- ► CPU : Central Processing Unit

- ► ALU : Arithmetic and Logic Unit
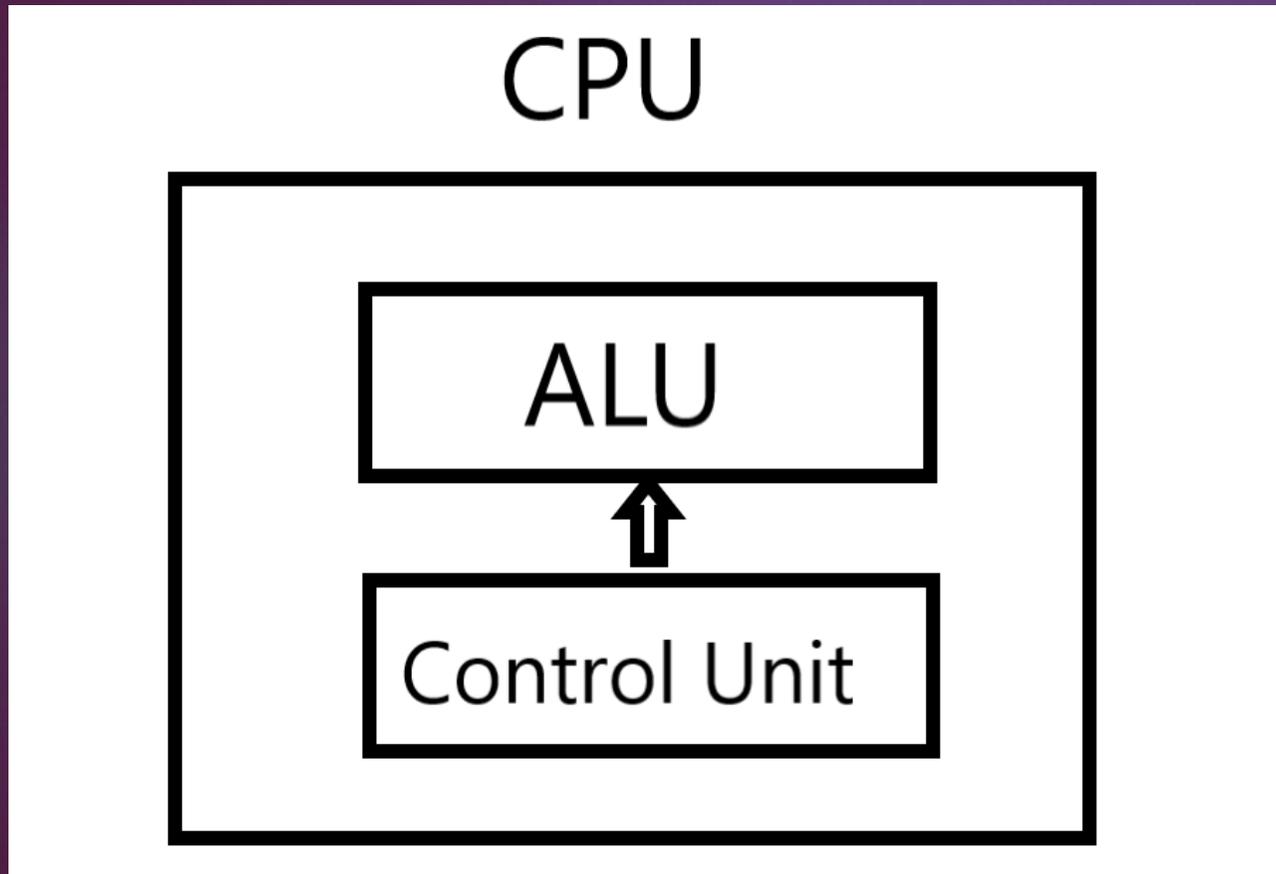
- ► CU : Control Unit

# Interaction between CPU ,memory and input/output devices

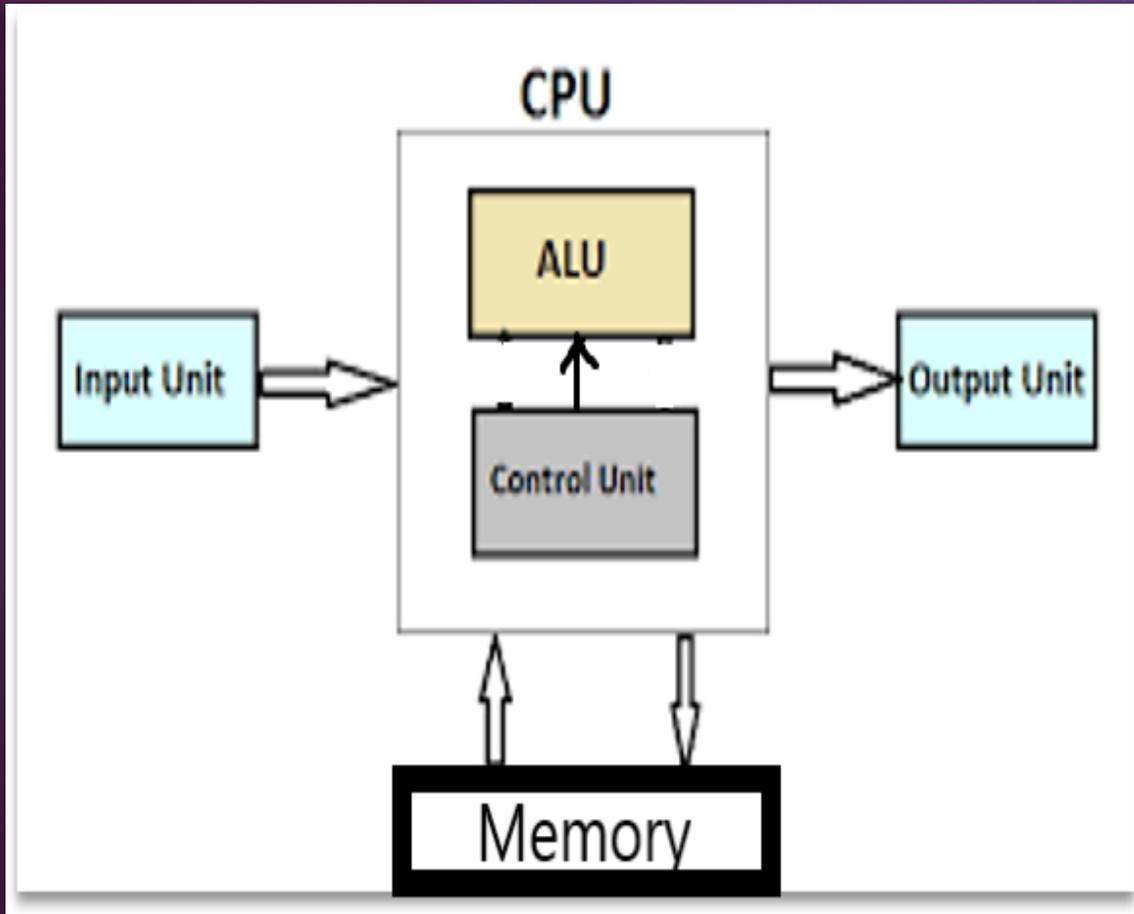# Interaction between CPU,memory and input/output devices

- ► 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



Input Devices

joystick · mouse · mic · camera · touch tablet · hand-held scanner · keyboard · flatbed scanner

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# 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

# 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.