Experiment no: 1   **Date:** July 1, 2015

Experiment name: Observation of different parts of CPU

Theory:

A computer is an electronic device, operating under the control of instructions (software) stored in its own memory unit, that can accept data (input), manipulate data (process), and produce information (output) from the processing. Generally, the term is used to describe a collection of devices that function together as a system. CPU is the main part of a computer. Widely the computer casing along with the parts inside is known as CPU.

Apparatus:

- ✓ CPU
- ✓ Screw Driver

Procedure:

First of all, take the CPU box and lay it down horizontally on any surface keeping the front of the CPU alongside our right hand. Then take the screw driver and remove the screws from the casing cover and pull the cover out.
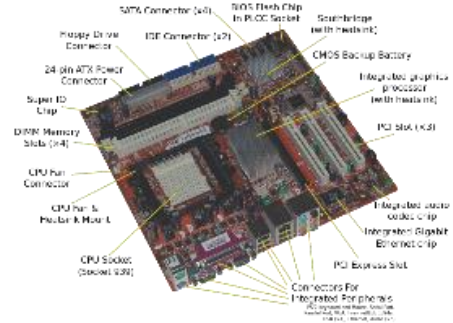
Observation:

After removing the cover we will see the following parts…

- ➢ Motherboard
- ➢ Processor
- ➢ RAM
- ➢ Heatsink
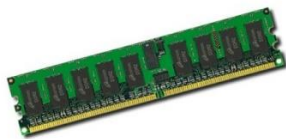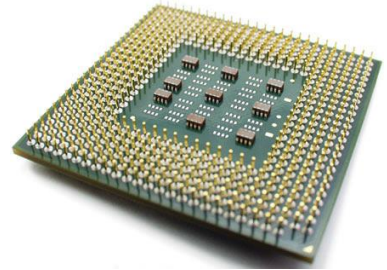- ➢ Hard Disk
- ➢ CD-ROM
- ➢ Graphics Card
- ➢ Power Supply

✓ **Motherboard:**

A Motherboard (sometimes alternatively known as the mainboard, system board, planar board or logic board is the main printed circuit board (PCB) found in computers and other expandable systems. It holds and allows communication between many of the crucial electronic components of a system, such as the central processing unit (CPU) and memory, and provides connectors for other peripherals. Unlike a backplane, a motherboard contains significant sub-systems such as the processor and other components.

✓ **Processor:**

The central processing unit (CPU) contains electronic circuits that cause processing to occur. The CPU interprets instructions to the computer, performs the logical and arithmetic processing operations, and causes the input and output operations to occur. It is considered the "brain" of the computer.

✓ **RAM:**

Random Access Memory or RAM (temporary memory) is the main memory of the computer. It consists of electronic components that store data including numbers, letters of the alphabet, graphics and sound. Any memory stored in RAM is lost once when the computer is turned off.

✓ **Heatsink:**

A heat sink is a passive heat exchanger that cools a device by dissipating heat into the surrounding medium. In computers, heat sinks are used to cool central processing units or graphics processors.
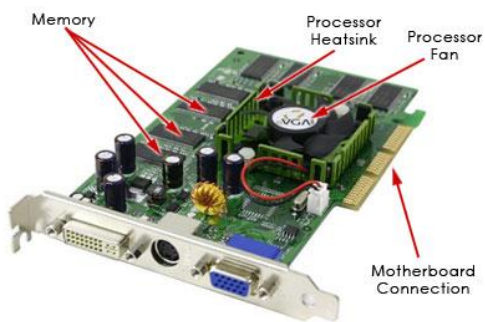
✓ **Hard Disk:**

Hard disk is an auxiliary storage. A hard disk consists of one or more rigid metal plates coated with a metal oxide material that allows data to be magnetically recorded on the surface of the platters. It is used to save data and programs.

✓ **CD-ROM:**

CD- ROM which means Compact disk read only memory is the name of the device located on the upper part of the CPU. It can run any compact disk (CD).

✓ **Graphics Card:**

A video card, also called a video adapter, display card, graphics card, graphics board, display adapter, graphics adapter or frame buffer is an expansion card which generates a feed of output images to a display (such as a computer monitor). Frequently, these are advertised as discrete or dedicated graphics cards, emphasizing the distinction between these and integrated graphics. Within the industry, video cards are sometimes called graphics add-in-boards, abbreviated as AIBs, with the word "graphics" usually omitted.

✓ **Power supply:**

A power supply unit (PSU) converts mains AC to low-voltage regulated DC power for the internal components of a computer. Modern personal computers universally use a switched-mode power supply. Some power supplies have a manual selector for input voltage, while others automatically adapt to the supply voltage.

Discussion:

After observing the parts of CPU we can realize that the main body of computer consists of the above mentioned elements. This parts usually assembled in a box which is called the CPU casing. The lab task helps us to realize that how a computer can do any difficult task. All the electrical instrument work together to manipulate and process any task.