

**NETWORKING & SYSTEM ADMINISTRATION LAB****Experiment No.: 2****Aim**

Familiarization of Hardware Components in a Computer.

**Procedure****1.Motherboard**

A motherboard provides connectivity between the hardware components of a computer, like the processor (CPU), memory (RAM), hard drive, and video card. There are multiple types of motherboards, designed to fit different types and sizes of computers.

Each type of motherboard is designed to work with specific types of processors and memory, so they don't work with every processor and type of memory. However, hard drives are mostly universal and work with the majority of motherboards, regardless of the type or brand.

**2.Mouse**

A mouse is a hardware input device that is used to move the cursor or pointer on computer screens. It can also be used to run computer programs, select items in a graphical user interface, and manipulate objects in the computer world. Some common examples of how it can be used are clicking on buttons, scrolling up and down the screen, selecting files, opening folders, and so on.

### 3. Monitor



Personal computers use a monitor to display data, run the software, and interact with the user. A monitor is an electronic visual display that connects to your computer or laptop. It is used for displaying images, text, videos, games, web pages, and more. Monitors are available in different sizes depending on the needs of the person using them.

The most common types of monitors are CRT (cathode ray tube), LCD (liquid crystal display), and LED (light-emitting diode).

### 4. Hard Disk Drive



A hard disk drive (HDD) is a non-volatile storage device which stores digitally encoded data on rapidly rotating platters with magnetic surfaces. Just about every new computer comes with a hard disk these days unless it comes with a new solid-state drive. Typical desktop hard disk drives store between 120 and 400GB, rotate at 7,200 rpm, and have a media transfer rate of 1 Gbit/s or higher. Hard disk drives are accessed over one of a number of bus types, including parallel ATA (also called IDE), Serial ATA (SATA), SCSI, Serial Attached SCSI, and Fibre Channel.

### 5. Heat Sink



A heat sink (also commonly spelled heatsink) is a passive heat exchanger that transfers the heat generated by an electronic or a mechanical device to a fluid medium, often air or a liquid coolant, where it is dissipated away from the device, thereby allowing regulation of the device's temperature. In computers, heat sinks are used to cool CPUs, GPUs, and some chipsets and RAM modules. Heat sinks are used with high-

power semiconductor devices such as power transistors and optoelectronics such as lasers and light-emitting diodes (LEDs), where the heat dissipation ability of the component itself is insufficient to moderate its temperature.

## 6. RAM Memory



A computer's RAM is a type of computer memory that stores information so the CPU can access it directly. Computer systems use main memory to store both data and programs. The more RAM you have, the more data your system can process at one time. This will lead to more efficient operations on your computer, which translates into better performance for the user.

## 7.ROM Memory



Read-only memory (ROM) is a type of storage medium that permanently stores data on personal computers (PCs) and other electronic devices. It contains the programming needed to start a PC, which is essential for boot-up; it performs major input/output tasks and holds programs or software instructions. This type of memory is often referred to as “firmware”—how it is altered has been a source of design consideration throughout the evolution of the modern computer.

## 8. Optical Drive



Optical Drives are used in PCs to read and write CDs and DVDs. The optical drive reads the data from the disc, which can then be transformed into a digital file that is readable

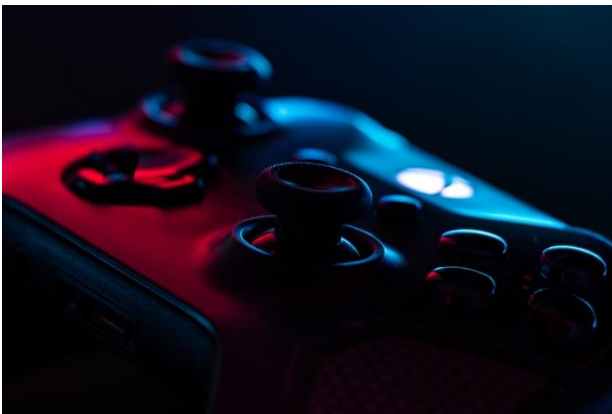
by the computer. This makes it easy to backup files, play music or movies, or copy data from one disc to another. The term "CD" refers to Compact Discs, which are the most common type of optical drive on modern computers. They are often used for installing software on your computer, moving data between computers, or writing new programs.

## 9. Flash Drive



A flash drive is a small, ultra-portable storage device which, unlike an optical drive or a traditional hard drive, has no moving parts. Flash drives connect to computers and other devices via a built-in USB Type-A or USB-C plug, making one a kind of combination USB device and cable. Flash drives are often referred to as pen drives, thumb drives, or jump drives. The terms USB drive and solid-state drive (SSD) are also sometimes used but most of the time those refer to larger, not-so-mobile USB-based storage devices like external hard drives.

## 10. joystick



A **joystick** is an input device consisting of a stick that pivots on a base and reports its angle or direction to the device it is controlling. A joystick, also known as the **control column**, is the principal control device in the cockpit of many civilian and military aircraft, either as a centre stick or side-stick. It often has supplementary switches to control various aspects of the aircraft's flight.