Input / Output Devices

Input / Output Devices

- I/O devices are used to enter information and instructions into a computer for storage or processing and to produce or display the processed data to a user. Input / Output devices are required for users to communicate with the computer.
- **Input Devices**

➢Keyboard

➢Mouse

➢Trackball

➢Touchpad

➢Touch screen

➢Light pen

Output Devices

Monitor

printer

Plotter

Sound Cards and Speakers

- Bar Code Reader
- Scanner

- **Keyboard:**

- Every key you press on the keyboard sends a specific input signal to the computer.
- The keyboard looks like a standard typewriter keyboard with a few additional keys. The basic QWERTY layout of characters is maintained to make it easy to use the system. The additional keys are included to perform certain special functions. These are known as function keys that vary in number from keyboard to keyboard.

➢Mouse:

- every movement or click you make with the mouse sends a specific input signal to the computer.
- A device that controls the movement of the cursor or pointer on a display screen. A mouse is a small object you can roll along a hard and flat surface. Its name is derived from its shape, which looks a bit like a mouse. As you move the mouse, the pointer on the display screen moves in the same direction.

➢Trackball:

- A trackball is an input device used to enter motion data into computers or other electronic devices. It serves the same purpose as a mouse, but is designed with a moveable ball on the top, which can be rolled in any direction.

➢Touchpad:

- A touch pad is a device for pointing (controlling input positioning) on a computer display screen. It is an alternative to the mouse. Originally incorporated in laptop computers, touch pads are also being made for use with desktop computers. A touch pad works by sensing the user's finger movement and downward pressure.

➢Touch Screen:

- It allows the user to operate/make selections by simply touching the display screen. A display screen that is sensitive to the touch of a finger or stylus.

➢Light Pen:

- A light pen is a light-sensitive computer input device that works with a computer's cathode-ray tube (CRT) display to select objects on a screen.

➢Bar code reader:

Bar-code readers are photoelectric scanners that read the bar codes or vertical zebra strips marks, printed on product containers. These devices are generally used in super markets, bookshops etc.

➢Scanner:

- Scanner is an input device that can read text or illustration printed on paper and translates the information into a form that the computer can use. A scanner works by digitizing an image.

- **Output Devices:**
- Output device receives information from the CPU and presents it to the user in the desired from.
- The output is usually produced in one of the two ways – on the display device, or on paper (hard copy)

➢**Monitor**

- All computers are connected to some type of graphic display

Unit , which is called monitor.

- It is the most popular soft copy output devices, which is used to display information.

Cathode ray tube (CRT) monitors

- Cathode ray tube(CRT) technology uses electron beams to display images on a phosphorescent screen. CRT monitors are used in traditional computer monitors and televisions

- In CRT, electron gun sealed inside a large glass tube projects and electron beam at screen coated with red , green and blue phosphor dots; the beam light up the appropriate colors in each pixel to display he necessary image.

Flat –panel Displays

- The thinner monitors used on notebook and other small computer are known as flat-panel displays. Most flat panel displays use liquid Crystal Display (LCD) technology consume less electricity and take up much less room/space.
- Flat panel displays form images by manipulating electronically charged chemicals or gases sandwiched between thin panes of glass or other transparent material.
- A plasma-panel is a type of flat panel display used for large TV display(typically above 37 inch). These thin display are created by sandwiching a special Gas (such as neon) between the two sheets of glass.

➢Printer:

- Printers are used to produce paper (commonly

known as hardcopy) output. Based on the technology

- used, they can be classified as Impact or Non-impact printers.

Impact printers

- An impact printer creates an image by pressing ink ribbon against the paper ,using pins or hammers to shape the image . A simple example of an impact printer is a type writer which uses small hammers to strike the ribbon.

Non-impact

- printers do not touch the paper while printing. They use chemical, heat or electrical signals to print the symbols on paper. Inkjet, Deskjet, Laser, Thermal printers fall under this category of printers.

➢Plotter:

- Plotters are used to print graphical output on paper. It interprets computer commands and makes line drawings on paper using multicolored automated pens.
- It is capable of producing graphs, drawings, charts, maps etc.

➢Sound cards and Speaker(s):

- Sound cards enable the computer to output sound through speakers connected to the board, to record sound input from a microphone connected to the computer, and manipulate sound stored on a disk.