

Chapter 3

OUTPUT DEVICES

Definition: An electro mechanical device, which accepts data from a computer and translates than into a suitable form for the user is called an output device.

These peripheral devices are classified in following categories:

- a. Monitors / VDU (Visual Display Unit)**
- b. Printers**
- c. Plotters**
- d. Screen image projectors**
- e. Voice response system (speakers)**

Output devices generate output in two formats. That is soft copy and hard copy.

SOFT COPY:-A soft copy is an output, which is not produced on a paper, or some material, which can be carried to another place in physical form. These are temporary in nature to and vanish after to the use. Examples of softcopy are output or a monitor or sound produced by a voice response system.

HARD COPY:-It is an out put on a paper or any

other material which can be touched and carried for being shown to others. These are permanent in nature outputs of printer and plotters are hard copy outputs.

I. Monitor (VDU- Visual Display Unit):-

A VDU also known as a monitor is the most basic and commonly used output device for viewing and displaying images. The monitor displays instructions we send to the computer and the instruction and results from the computer fed to us.

VDUs are developed using Cathode Ray Tube (CRT), Liquid Crystal Display (LCD) or Light Emitting Diode (LED) technology, Projection Display(HD(High Definition)) etc.

II. Television:-

A television is a system for converting visual images into electrical signals, transmitting them by radio or other means and displaying them electronically on a screen.

III. Printer:-

Printers are most commonly used devices, producing hard copy of computer output. They are classified into 2 categories impact printers and non impact printers.

Impact printers: These printers leave the impression on the paper using ribbon hammer mechanism.

- **Dot matrix printer**
- **Daisy wheel printers**
- **Line printers**
- **Drum printers**
- **Chain printers**

Non impact printers : Printers that do not operate by striking a print head against an ink ribbon are called non-impact printers. Laser printer, Inkjet printers and Thermal printers are examples of non-impact printers.

Non-impact printers are generally quieter and produce high quality prints.

- 1. Dot matrix printer: This printer prints characters by sticking an ink soaked ribbon**

against the paper. These can be used to generate carbon copies also.

- 2. Inkjet/DeskJet/bubble-jet printers: These all are low cost printers which use a controlled stream of ink for printing.**
- 3. Laser printers: These printers use laser technologies to produce printed documents. These are very fast printers and are used for high quality prints.**

IV. Plotters:

The printer discussed above are capable of producing graphics output, but lag in some cases like angering design architecture plan of a building, design of mechanical components of a care etc . These are the cases where high quality and perfectly proportioned graphics are required on large sheets of paper. A special type of output device used for this purpose is called a plotter.

V. Speaker :

Speakers are output devices used with computer systems to produce sound. They receive audio input from the computer's sound card and produce audio output in the form of sound waves. Speakers usually come in pairs, which allow them to produce stereophonic sound from two separate audio channels.

VI. Digital projector :

A digital projector is a device which connects to a computer and is used to project the video output from the computer onto a wall or screen. In class rooms they are often used with electronic white board. The projector can be portable and placed on a stand or it can be permanently fixed to the ceiling.

They are used in

- Class room teaching**
- Staff –training sessions**
- A presentation to an audience**
- Home theaters**