Computer Fundamentals

INPUT DEVICES AND OUTPUT DEVICES

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CHAPTER

Hardware

The various mechanical parts of a computer are:

INPUT DEVICES

Input devices are used to enter data. They convert data entered into electronic signals for further processing.

Keyboard: The most commonly used Input device is the keyboard. It is the most commonly used input device, which resembles a typewriter. It has about 105 keys classified as alphabetic number, punctuation, special keys and the space bar. Each key has specific function.

Alphabet keys: These keys are used to enter the alphabets A to Z. The alphabets are arranged on a keyboard in the same way as they are arranged on a typewriter.

Arrow keys: The arrow keys make the cursor move in four directions i.e., right, left, up and down. The arrow keys are found on the lower right side of the alphabet keys.

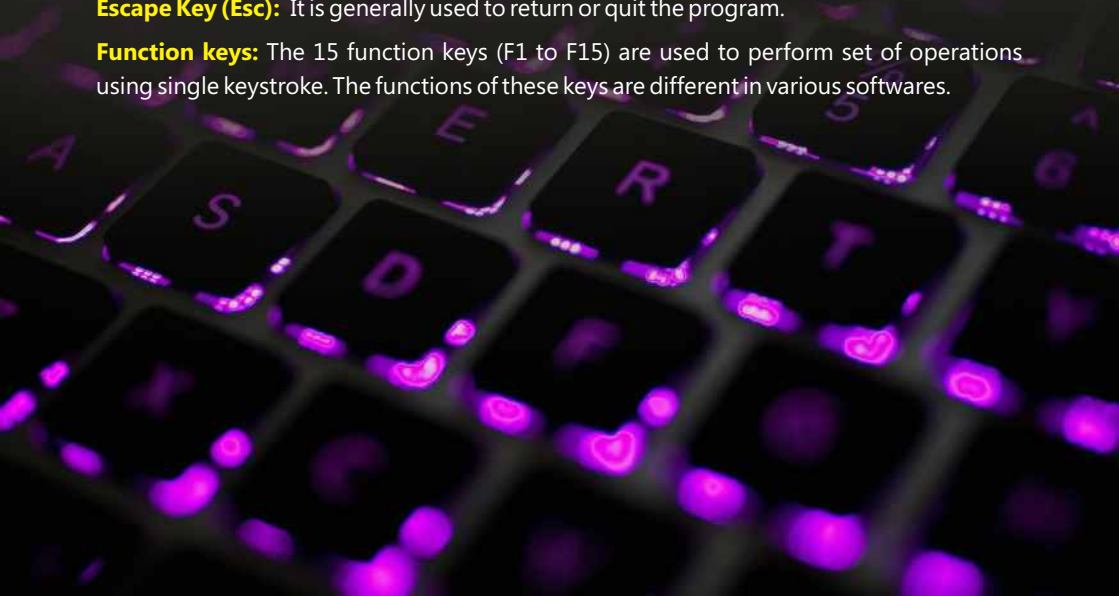**Caps Lock key:** It is used to capitalize a series of letters (numbers and symbols are not effected).

Ctrl key: The Control key is always pressed with some other key to produce the effect.

Delete key: It is used to remove any letter or word that has been typed.

Enter Key: It is used to confirm the entry or the command or the command that has been made.

Escape Key (Esc): It is generally used to return or quit the program.

Function keys: The 15 function keys (F1 to F15) are used to perform set of operations using single keystroke. The functions of these keys are different in various softwares.

Numeric keys: Numeric keys are used to enter numbers. These keys are found at an extreme right and at the second top row of the computer. Alphabet and Numeric keys together are called alphanumeric keys.

Power on key: It is used to move the insertion point to the beginning of next line.

Return key: It is used to move the insertion point to the beginning of the next line.

Space bar key: This is the largest key on the keyboard. It is used to leave space while typing.

Special keys: The function of these keys depends on the program you are using.

There are other input devices, which are categorized as the pointing devices:

Mouse: It is a smooth plastic device that has a plastic ball on its lower side, with one or two buttons and wire plugs into the C.P.U. or keyboard. It is used to control the movement of cursor or screen to select various options or to create drawings.

Light Pen: It is a wand that contains sensory light signals. In shape, it is just like a pen with a clip on its side. To select options, the user holds it and presses the clip on its side.

Joy Stick: It is popular input pointing device, used mainly for playing games. It has a square base with a vertical handle, which can be moved in four directions. Buttons located at the bottom or the top are used to control movement of an object on the screen.

Trackball: It is an alternative to the mouse. A trackball is almost an upside-down mouse; it stays still, and contains a movable ball that can be rotated using fingers to move the cursor on the screen. A trackball does not need the area of flat space, so trackballs are used in portable computers. Apple Power Book computers include a trackball as a part of the keyboard case, and Microsoft has released a small trackball that clips on to the side of a laptop computer.

Scanner: Scanner is an input device used to digitilize images, so that they can be merged with text. It is also a peripheral part as it is attached to the computer whenever needed. It is just like a photocopy machine. It scans image or text and sends the copy of that image to the computer.

Scanners are generally used in printing books or desktop publishing program.

OUTPUT DEVICES

Equipments that give the result of processed input either by displaying or in printed form are called output devices.

Output devices on the basis of their presentation of result can be classified as:

1. Soft copy: Soft copy devices are used to display the result/out put on screen. e.g. , Monitor and Speakers.

2. Hard Copy: Devices that gives the result /output in printed form. e.g. Printer and Plotter.

Monitor: It is also known as Visual Display Unit abbreviated as V.D.U. Monitors can work in two different modes viz. Text-mode and Graphic mode.

In Text-mode, the screen is divided into a matrix of rows and columns.

Each cell of the matrix is used for one character. A Typical screen has 80 characters positions per line and 25 lines across the screen.

In Graphic-mode, the screen is treated as an array of tiny dots called pixels. The characters and pictures that appear on the screen are shown by making a drawing on these pixels.

A VDU may be monochrome or colored depending on these pixels.