Computer Input and Output Devices

**Input Device Definition:** A piece of equipment/hardware which help us enter data into a computer is called an input device. For example keyboard, mouse, etc.

**Output Device Definition:** A piece of equipment/hardware which gives out the result of the entered input, once it is processed (i.e. converts data from machine language to a human-understandable language), is called an output device. For example printer, monitor, etc.

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**List of Input Devices**

Given below is the list of the most common input devices along with brief information about each of them.

1. **Keyboard**
   - A simple device comprising keys and each key denotes either an alphabet, number or number commands which can be given to a computer for various actions to be performed
   - It has a modified version of typewriter keys
   - The keyboard is an essential input device and computer and laptops both use keyboards to give commands to the computer

2. **Mouse**
   - It is also known as a pointing device
   - Using mouse we can directly click on the various icons present on the system and open up various files and programs
   - A mouse comprises 3 buttons on the top and one trackball at the bottom which helps in selecting and moving the mouse around, respectively
   - In case of laptops, the touchpad is given as a replacement of mouse which helps in the movement of the mouse pointer

3. **Joy Stick**
   - It is a device which comprises a stick which is attached at an angle to the base, so that it can be moved and controlled
   - Mostly used to control the movement in video games
Apart from computer system, a joystick is also used in the cockpit of an aeroplane, wheel chairs, cranes, trucks, etc. to operate them well

4. Light Pen
   - It is wand-like looking device which can directly be moved over the device’s screen
   - It is light sensitive
   - Used in conjunction with computer’s cathode ray tube

5. Microphone
   - Using a microphone, sound can be stored in a device in its digital form
   - It converts sound into electrical signal
   - To record or reproduce a sound created using a microphone, it needs to be connected with an amplifier

6. Scanner
   - This device can scan images or text and convert it into a digital signal
   - When we place any piece of document on a scanner, it converts it into a digital signal and displays it on the computer screen

7. Barcode Reader
   - It is a kind of an optical scanner
   - It can read bar codes
   - A source of light is passed through a bar code, and its aspects and details are displayed on the screen

All the devices mentioned above are the most commonly used input devices. Several other such equipment are used in different fields which can be counted as an input device.

For the reference of candidates and to help them with the common computer related terms, given below are links to difference between articles which will make these terms and easily understandable:

- Difference Between Search Engine and Web Browser
- Difference Between RAM and ROM
- Difference Between Hardware and Software
- Difference Between IPV4 and IPV 6
- Difference Between Firewall and Antivirus
- Difference Between WWW and Internet
- Difference Between Virus and Malware

List of Output Devices

The commonly used output devices have been listed below with a brief summary of what their function is and how they can be used.
1. Monitor
   • The device which displays all the icons, text, images, etc. over a screen is called the Monitor
   • When we ask the computer to perform an action, the result of that action is displayed on the monitor
   • Various types of monitors have also been developed over the years

2. Printer
   • A device which makes a copy of the pictorial or textual content, usually over a paper is called a printer
   • For example, an author types the entire book on his/her computer and later gets a print out of it which is in the form of paper and is later published
   • Multiple types of printers are also available in the market, which can serve different purposes

3. Speakers
   • A device through which we can listen to a sound as an outcome of what we command a computer to do is called a speaker
   • Speakers are attached with a computer system and also are an hardware device which can be attached separately
   • With advancement in technology, speakers are now available which are wireless and can be connected using bluetooth or other applications

4. Projector
   • An optical device which presents an image or moving images onto a projection screen is called a projector
   • Most commonly these projectors are used in auditoriums and movie theatres for display of the videos or lightening
   • If a projector is connected to a computer, then the image/video displayed on the screen is the same as the one displayed on the computer screen

5. Headphones
   • They perform the same function as a speaker, the only difference is the frequency of sound
   • Using speakers, the sound can be heard over a larger area and using headphones, the sound is only audible to the person using them
   • Also known as earphones or headset

To learn more about the Fundamentals of Computer, candidates can visit the linked article.

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