Hardware Devices

Name: ANSWERS

**The table below gives a list of twenty four input, output and storage devices that might be found in a computer system. Put an *I* beside each of the INPUT devices, put an *O* beside each of the OUPUT devices, and an *S* beside each of the STORAGE devices.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| CD Drive | **S** | Graph Plotter | **O** | Laser Printer | **O** | Tape Unit | **S** |
| Digital Camera | **I** | Hard Disk Drive | **S** | Light Pen | **I** | Touch Sensitive Screen | **I** |
| Dot Matrix Printer | **O** | Inkjet Printer | **O** | Microphone | **I** | Touch Pad (laptop) | **I** |
| DVD Drive | **S** | Joystick | **I** | Mouse | **I** | Tracker Ball | **I** |
| Graphics Tablet (or Digitiser) | **I** | Keyboard | **I** | Scanner | **I** | Visual Display Unit | **O** |
| Temperature sensor | **I** | Memory stick (USB drive) | **S** | Headphones | **O** | Finger print scanner | **I** |

Suitability of Devices

**For each of the following descriptions, choose the most suitable input or output device to do the job. Explain why you have made the choice that you have.**

1 A small office of 20 computers needs to produce large volumes of high quality printouts every day. **Laser printer (output device) – it can produce large volumes of high quality printouts quickly, cheaply and quietly.**

2 An art student would like to be able to directly draw good quality pictures with their computer using graphics software. **Graphics tablet (input device) – the more you spend the better the quality; even the cheapest will produce better lines than using a mouse.**

3 A librarian would like to transfer the contents of some old magazines to computer. **Flatbed scanner (input device) – it can image books page by page.**

4 A bomb disposal unit want to control a robot remotely to disable explosives. They also need to be able view the robot’s actions as it works. **Joystick type controller (input device) – it can controller the robots various movements. Camera (input device) – it will image the robot’s eye view.**

Extension

**Mike buys a new laptop from a computer shop and gets an inkjet printer thrown in for “free”.**

1 Find out how an inkjet printer works. Give a brief description. **Very tiny droplets of ink (black, cyan, magenta and yellow) are sprayed on to the paper and rapidly heated to fix them in place.**

2 Although inkjets are now very cheap to buy (or free!), they can turn out to be quite expensive to run. Find out and explain why this is. Try to work out some example costs. **Inkjet ink cartridges are costly. Maybe 100 colour prints/cartridge at £15 each.**

3 Mike’s dad tells him that “in his day” most printers were ***impact*** printers of some kind. Find out what this means and explain why an inkjet is ***non- impact*** printer. What about a laser printer?

**Impact printers involve something actually hitting the paper to make a mark. They are now seldom seen. The big drawbacks were noise and speed. Inkjets and laser printers are both non-impact.**