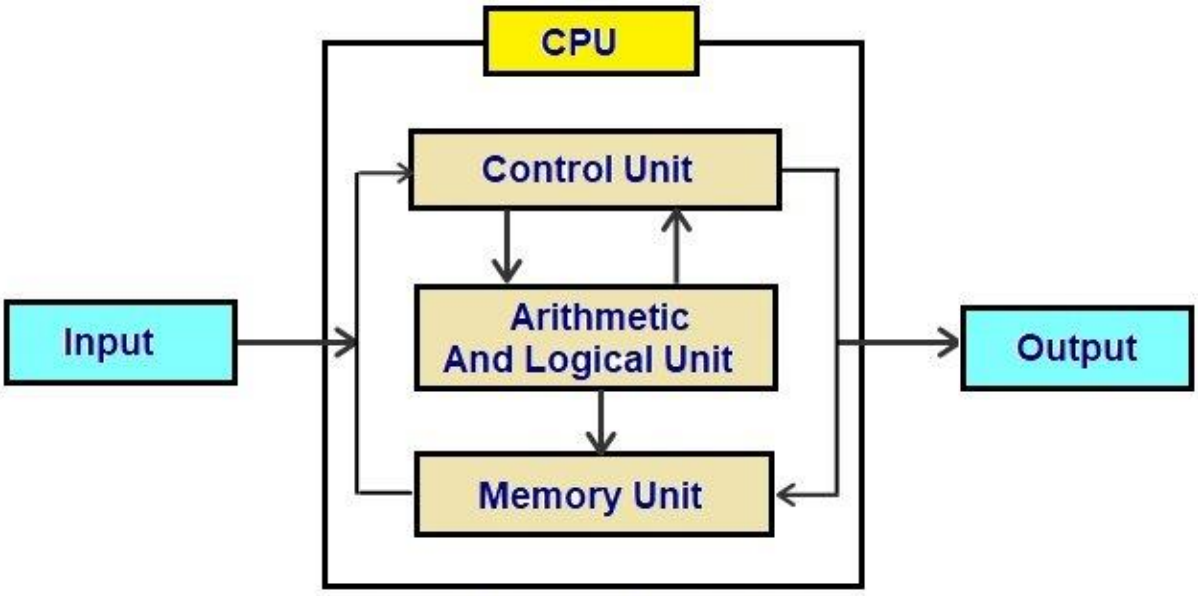
What is a Computer?

A computer is an electronic machine that:

☞ Takes input → Processes it → Gives output



Block Diagram of a Computer

ArtOfTesting

Input Unit

Work:

☞ Takes data from the user and sends it to the computer.

Examples:

- **Keyboard**
- **Mouse**
- **Scanner**
- **Microphone**

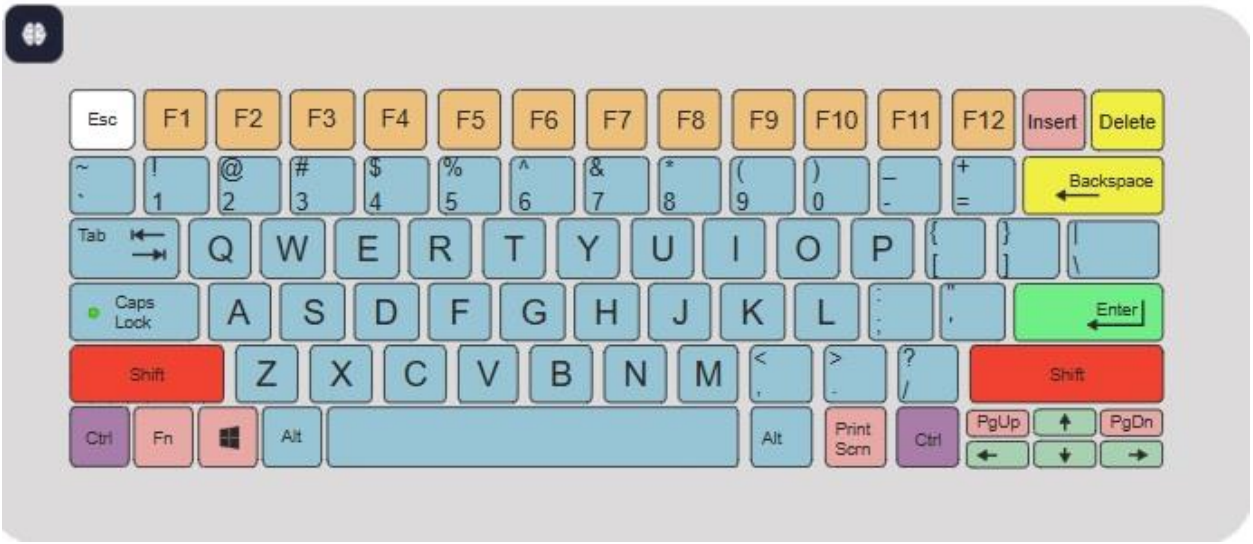
Simple line:
📌 ***Input unit gives data to the computer.***

Keyboard

◆ **What is a Keyboard?**

A keyboard is an input device.
It is used to type letters, numbers, and symbols into the computer.

In simple words:
👉 **Keyboard is used to write on the computer.**



◆ Work of Keyboard

The keyboard helps us to:

1. **Type letters (A–Z)**
2. **Type numbers (0–9)**
3. **Type symbols (@, #, $, %, etc.)**
4. **Give commands to the computer**

📌 Simple line:

Keyboard is used to enter text and commands into the computer.

◆ Main Keys on Keyboard

1⃣ Alphabet Keys (A–Z)

- **Used to type letters**
- **Example: writing a name or sentence**

📌 Example:
Typing HELLO

2⃣ Number Keys (0–9)

- **Used to type numbers**
- **Example: writing phone numbers, marks, calculations**

📌 Example:
Typing 12345

3⃣ Enter Key

- **Used to start a new line**
- **Used to confirm commands**

📌 Example:
After typing a message, press Enter

4⃣ Spacebar

- **Used to give space between words**

- **It is the longest key on the keyboard**

📌 **Example:**
Typing: My ␣ Name ␣ is ␣ Ram

◆ **Other Important Keys (Simple)**

- **Backspace – deletes letters**
- **Shift – types capital letters**
- **Caps Lock – types all capital letters**
- **Tab – moves cursor forward**

◆ **Example (How Keyboard Works)**

1. **We press a key (like A)**
2. **Keyboard sends signal to computer**
3. **Computer shows A on the screen**

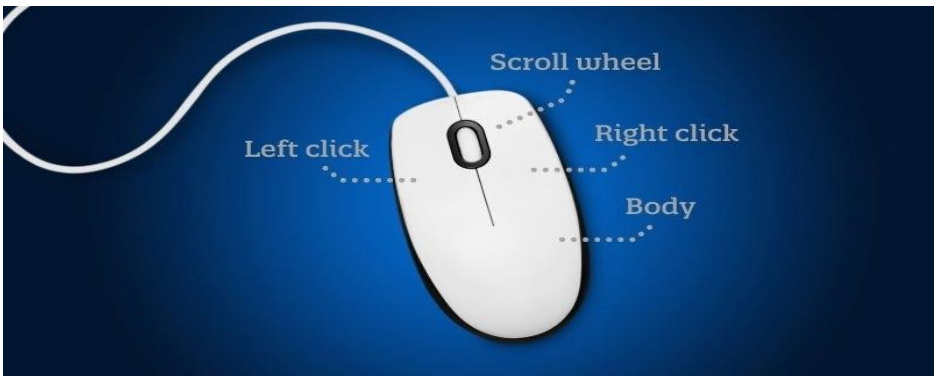
◆ **Uses of Keyboard**

- **Writing letters and messages**
- **Making documents**
- **Writing emails**
- **Doing calculations**

What is a Mouse?

A mouse is an input device.
It is used to point, click, and move items on the computer screen.

☞ Mouse helps us control the computer easily.



◆ Work of Mouse

The mouse helps us to:

1. **Point to any item on the screen**
2. **Click to open or select something**
3. **Move items from one place to another**
4. **Draw pictures using drawing software**

📌 Simple line:
Mouse is used to point, click, and move items on the screen.

◆ Main Parts of Mouse (Easy)

1️⃣ Left Button

- **Used to select and open files**
- **Used for single click and double click**

📌 Example:
Double-click to open a folder

2️⃣ Right Button

- **Used to show options / menu**

📌 Example:
Right-click to rename a file

3️⃣ Scroll Wheel

- **Used to scroll up and down**
- **Used to move pages**

📌 Example:
Scrolling a webpage

4️⃣ Mouse Body

- **Helps us hold and move the mouse**
- **Movement of mouse moves pointer on screen**

◆ How Mouse Works (Simple Steps)

1. We move the mouse on table
2. Pointer moves on screen
3. We click a button
4. Computer performs the action

◆ Uses of Mouse

- Opening files and folders
- Drawing pictures
- Playing games
- Selecting text
- Scrolling webpages

◆ Example (Real Life)

When you click an icon:

1. Mouse sends signal
2. Computer understands
3. Program opens on screen

Scanner

- **Used to scan photos or documents**
- **Converts paper data into digital form**

📌 **Example: scanning an ID card**

4️⃣ Microphone

- **Used to input sound or voice**
- **Converts voice into digital data**

📌 **Example: voice recording or online classes**

◆ **More Input Devices (extra)**

- **Webcam – takes pictures/videos**
- **Joystick – used in games**
- **Touchscreen – input by touch**

📄 Output Devices (Very-Very Simple Notes)

Monitor

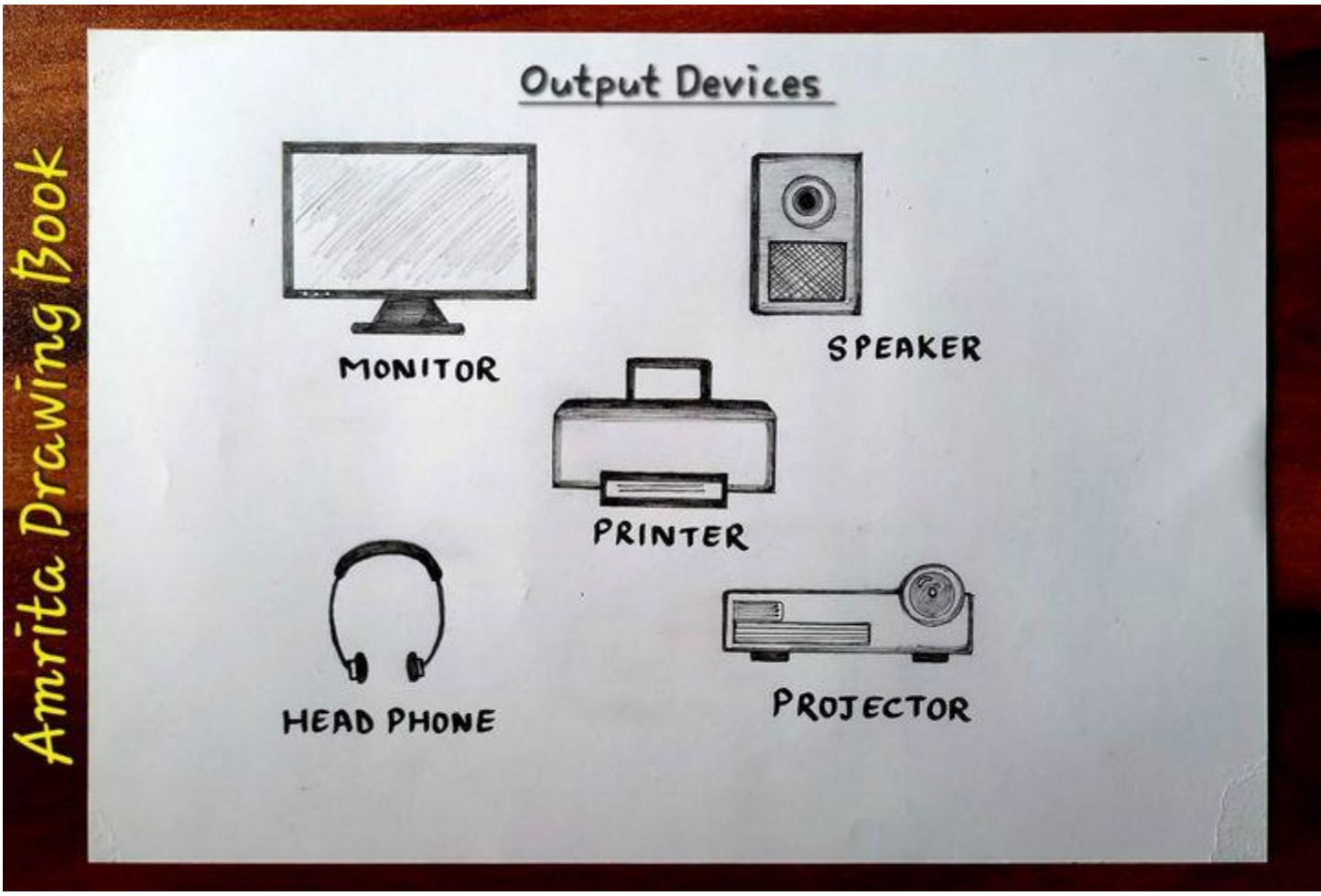
Multimedia Projector

Output Device of Computer

Printer

Plotter

Micro Films



◆ **What are Output Devices?**

Output devices are the parts of a computer that show the result of work done by the computer.

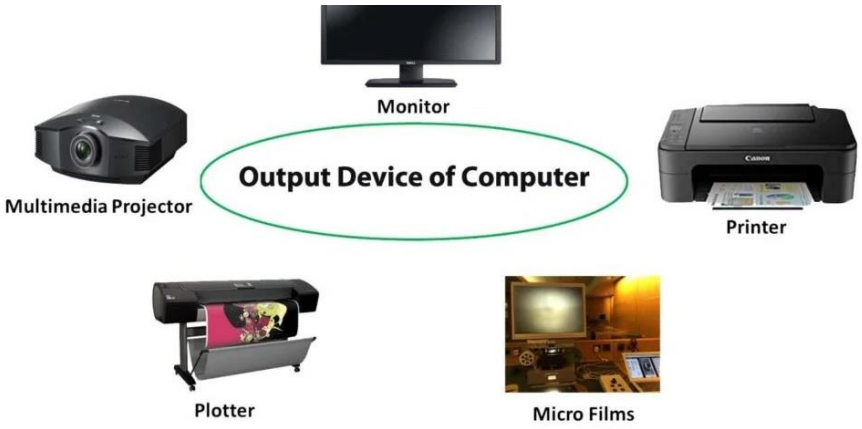
☞ **Output devices = How computer talks to us**

◆ **Work of Output Devices**

Output devices:

1. **Receive result from the computer**
2. **Show information in a form we can see or hear**

📌 **Simple line:**
Output devices show the result to the user.



◆ Main Output Devices (Easy Explanation)

1 Monitor

- **Looks like a TV**
- **Shows text, pictures, videos, and games**

📌 **Example: seeing a typed letter on screen**

👉 **Monitor shows visual output**

2 Printer

- **Prints work on paper**
- **Gives hard copy**

📌 **Example: printing notes or photos**

👉 **Printer gives output on paper**

3 Speaker

- **Produces sound**
- **Used for music, videos, and voice**

📌 **Example: listening to songs**

👉 **Speaker gives sound output**

4 Headphones

- **Gives sound privately**
- **Used in online classes and calls**

📌 **Example: listening without disturbing others**

5 Projector

- **Shows computer screen on a big wall/screen**

- **Used in classrooms and meetings**

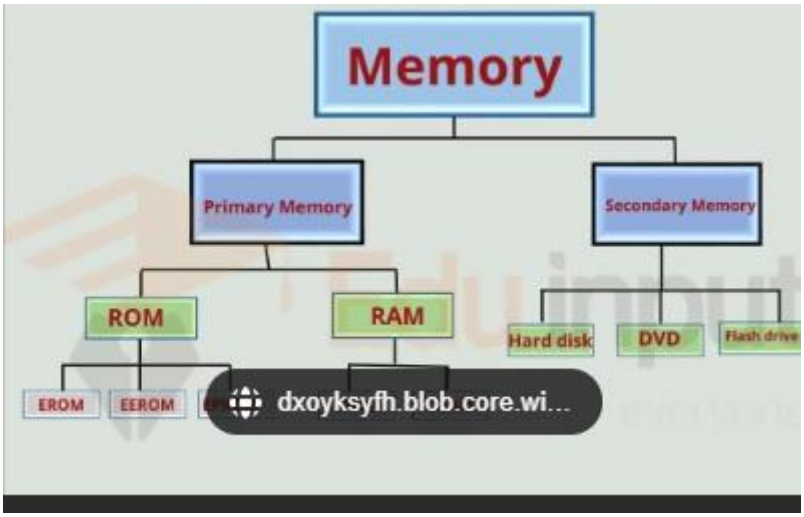
📌 **Example: teaching with slides**

◆ Difference (Very Short)

- **Input device → gives data to computer**
- **Output device → takes result from computer**

. Primary Memory (Main Memory / Volatile)

- **This is the memory directly accessible by the CPU.**
- **Fast but usually expensive.**
- **Volatile, which means it loses data when power is off.**



Types of Primary Memory:

Memory Type	Explanation	Example
RAM (Random Access Memory)	Temporary memory where CPU stores data/programs currently in use	DDR4 RAM in laptops/PCs
ROM (Read Only Memory)	Permanent memory that stores important instructions, cannot be easily modified	BIOS in computers
Cache Memory	Very fast memory near CPU to store frequently used data	L1, L2, L3 cache
Registers	Tiny memory inside CPU for immediate processing	Accumulator, Instruction Register

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2. Secondary Memory (Auxiliary / Non-Volatile)

- **Slower but cheaper than primary memory.**
- **Stores data permanently, even when power is off.**
- **Examples:**
  - **Hard Disk Drive (HDD) – traditional storage**
  - **Solid State Drive (SSD) – faster storage**
  - **USB flash drives, CDs, DVDs – portable storage**

Key Differences (Easy for Exams)

Feature	Primary Memory	Secondary Memory
Speed	Fast	Slow
Volatility	Volatile	Non-Volatile
Cost	Expensive	Cheaper
Example	RAM, ROM, Cache	HDD, SSD, USB

✓ Memory Tip for Exams:

Think "Primary = Fast & temporary, Secondary = Slow & permanent."