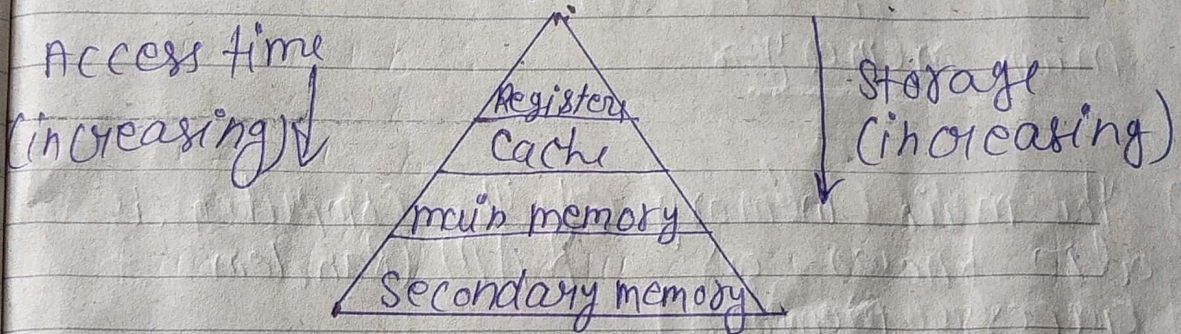


## Sec → 2

1 are

The memory hierarchy system consists of all storage devices employed in a computer system from the slow but high capacity auxiliary memory to a relatively faster main memory, to an even smaller and faster cache memory accessible to the high speed processing logic. Shows the typical memory hierarchy.



memory hierarchy is layered into these layers:

1 Registers → Registers are special memory units which are used to handle the information between various units of the computer and to speed up the rate of information transfer.

① These registers are used to hold

information on temporary basis.

## ② Cache →

① Cache is used by the CPU for memory which is being accessed over and over again.

② Instead of pulling it every time from the main memory it is put in cache for fast access.

## ③ main memory →

① The main memory of the computer is also known as RAM (Random access memory)

② It is constructed from integrated circuits and needs to have electrical power in order to maintain its information

③ When power is lost, the information is lost too. It can be directly accessed by the CPU.

## ④ Secondary / Auxiliary memory →

- ① Secondary memory is computer memory that is non-volatile and persistent in nature and is not directly accessed by a computer/processor.
- ② It allows a user to store data that may be instantly and easily retrieved, transported, and used by applications and services.
- ③ The most common forms of secondary / auxiliary memory are flash memory, optical disks, magnetic disks, and magnetic tape.