

I.T Study Materials for Class 10

(NCERT Based Revision Notes)

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Date: -21/02/2021

Memory:

It facilitates the remembrance power to computer system. It refers to the physical devices used to store programs (sequences of instructions) or data (e.g. program state information) on a temporary or permanent basis for use in a computer or other digital electronic device.

Memory can be of two types:-

1. Primary Memory

2. Secondary Memory

The term primary memory is used for the information in physical systems which are fast (**i.e. RAM**), as a distinction from secondary memory, which are physical devices for program and data storage which are slow to access but offer higher memory capacity. **Primary memory** stored on secondary memory is called virtual memory

PrimaryMemory can be categorized as:-

1. Volatile Memory (RAM)

2. Non-Volatile Memory(ROM)

Volatile memory (RAM)

Volatile memory is computer memory that requires power to maintain the stored information. **RAM** stands for **Random Access Memory**. The data is primarily stored on RAM. This is also known as Read-Write memory as both the operation can take place on it. It is volatile in nature because as soon as the power is off its contents are also removed. It can be of two types:-

1. Static RAM or SRAM.

2. Dynamic RAM or DRAM

SRAM retains its contents as long as the power is connected and is easy to interface to but uses six transistors per bit.



Dynamic RAM is more complicated to interface to and control and needs regular refresh cycles to prevent its contents being lost. However, DRAM uses only one transistor and a capacitor per bit, allowing it to reach much higher densities and, with more bits on a memory chip, be much cheaper per bit. SRAM is not worthwhile for desktop system memory, where DRAM dominates, but is used for their cache memories..