# GANGOTRI COMPUTER INSTITUTE

## Introduction of Computer

A computer is an electronic device that accepts data, processes it according to instructions, and produces output, which it can also store for future use. It functions as a versatile tool that manipulates information to perform a vast range of tasks, from simple calculations to complex operations, by following software programs. A complete computer system includes both the physical hardware and the software that tells it what to do.

**Core functions and components**

- **Input:** The computer receives data and instructions from input devices like a keyboard or mouse.
- **Processing:** A Central Processing Unit (CPU) acts as the brain, executing the instructions to process the data.
- **Output:** The processed data is presented as useful information through output devices such as a monitor or printer.
- **Storage:** A computer has internal memory to temporarily store data and programs while they are being used, and for long-term storage.

**Key characteristics**

- **Speed:** Computers can perform millions of calculations in a fraction of a second, a task that would take humans a very long time.
- **Accuracy:** They provide accurate results, provided the instructions are correct and the hardware is functioning properly.
- **Diligence:** A computer can perform tasks tirelessly without getting tired or losing concentration, unlike humans.

## Notes :-

The presentation of the Edison Effect in 1885 provided the theoretical background for electronic devices. Originally in the form of vacuum tubes, electronic components were rapidly integrated into electric devices, revolutionizing radio and later television. It was in computers however, where the full impact of electronics was felt. Analog computers used to calculate ballistics were crucial to the outcome of World War II, and the Colossus and the ENIAC, the two earliest electronic digital computers, were developed during the war.