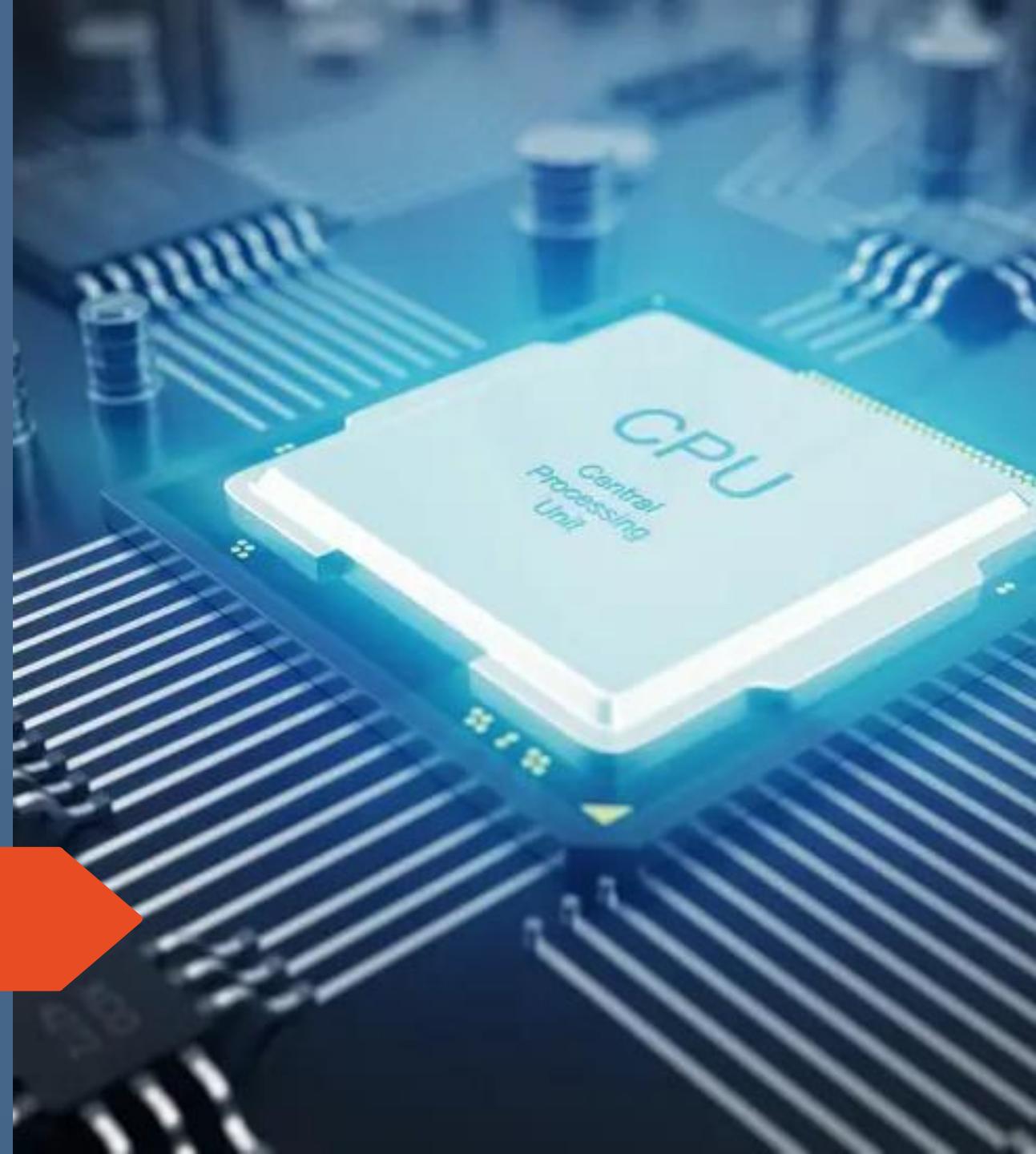


Central Processing Unit

Grade 07

01st lesson



Let's identify the central processing unit (CPU)

The Central Processing Unit – (CPU) can be identified as a digital circuit that processes data according to given instructions. Whatever task performed by the computer, in all such instances,

➤ Components of the Central Processing Unit

- Arithmetic & Logical Unit
- Control Unit
- Memory Registers

ALU

Performs all mathematical and logical functions (operations) of the computer

Central Processing Unit

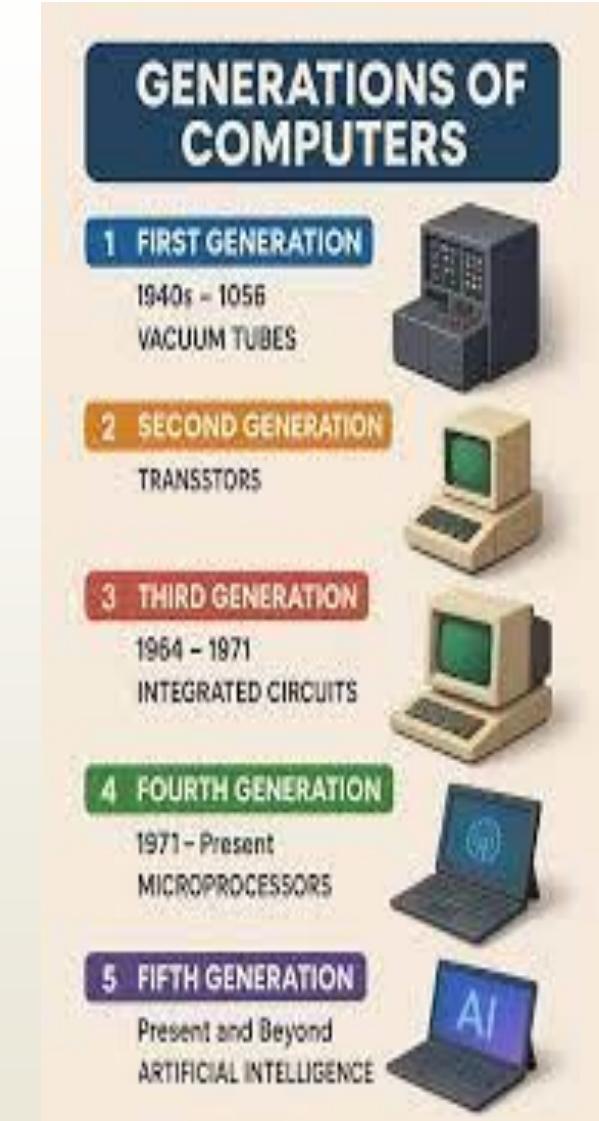
Controls all the devices of a computer system / (Controls all the operations of a computer system)

Memory Registers

Functions as a temporary memory store

Evolution of Central Processing Unit

01. First Generation (vacuum tubes)
02. Second Generation (transistor)
03. Third Generation (integrated circuit)
04. Fourth Generation (microprocessor)



First Generation Duration (time period) 1940-1956

- Electronic technology used: Vacuum tube
- Power consumption: A large amount of vacuum tubes (about 18000) were used and they emitted a lot of heat was required. A cooling system to control the heat. So, it led to a heavy power consumption
- Size of the computer : As large as a room
- Execution speed: Measured in milliseconds
- Cost : It cost a lot for production and maintenance