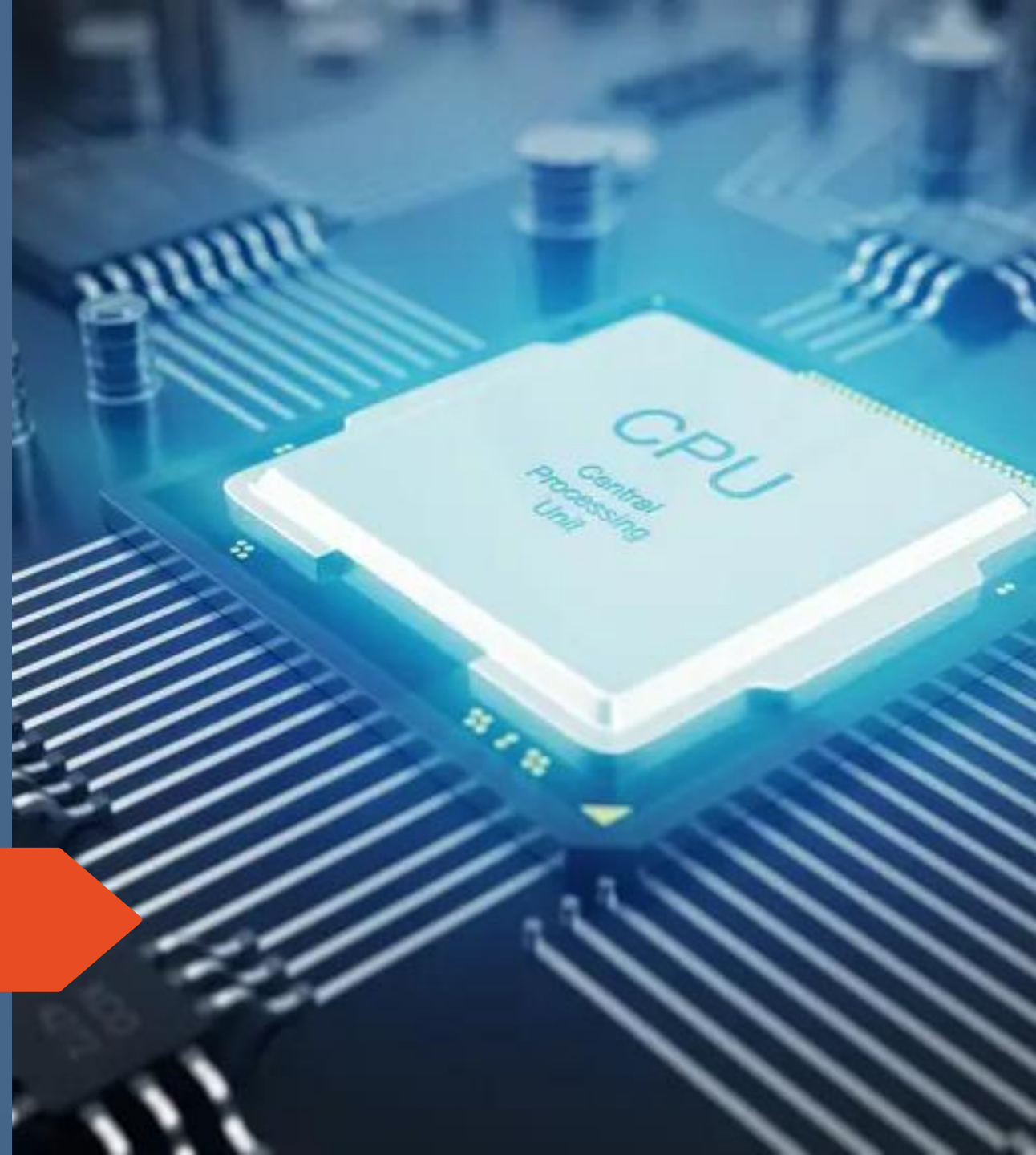


Central Processing Unit

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

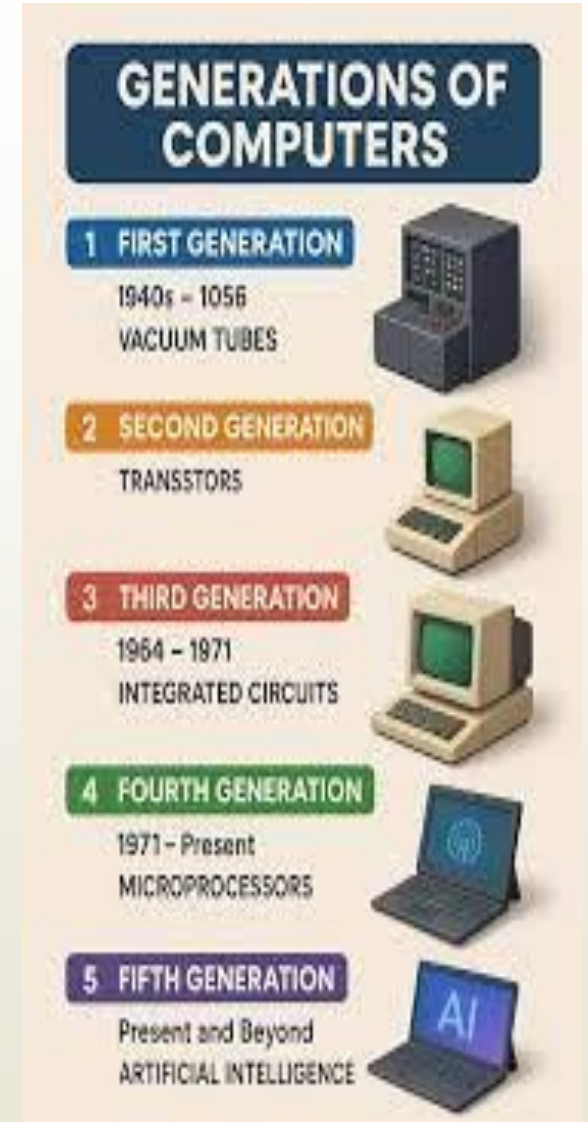
Controls all the devices of a computer system / (Controls all the operations of a computer system)

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