Kazakh-American University

Generations of computer And Characteristics of a computer

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Generations of computer

Computer can classified in to five types according to generations i.e time period

. First generation computer

. Second generation computer

. Third generation computer

. Fourth generation computer

. Fifth generation computer

. First generation computer

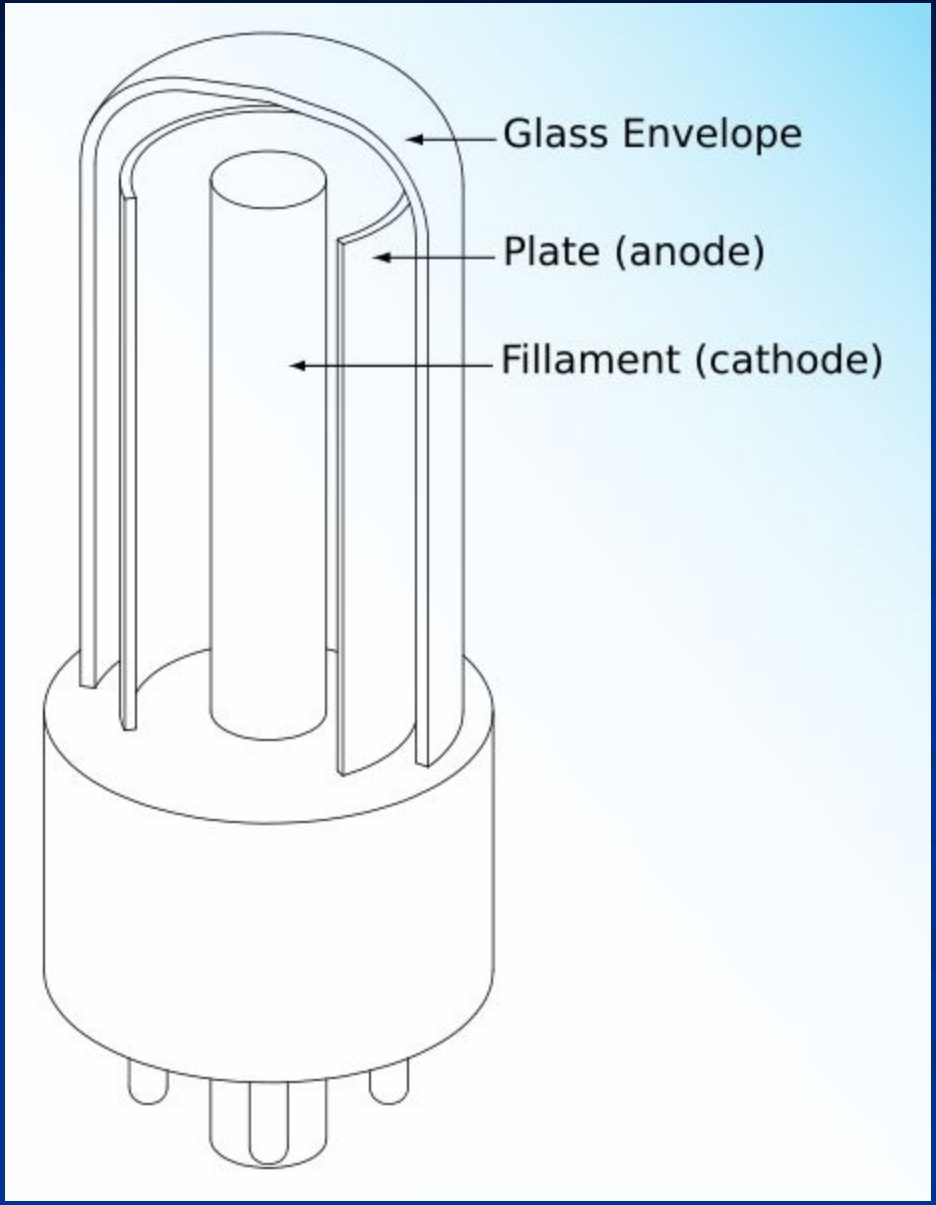
Period : 1945 – 1956

Inviter : Lee de Forest

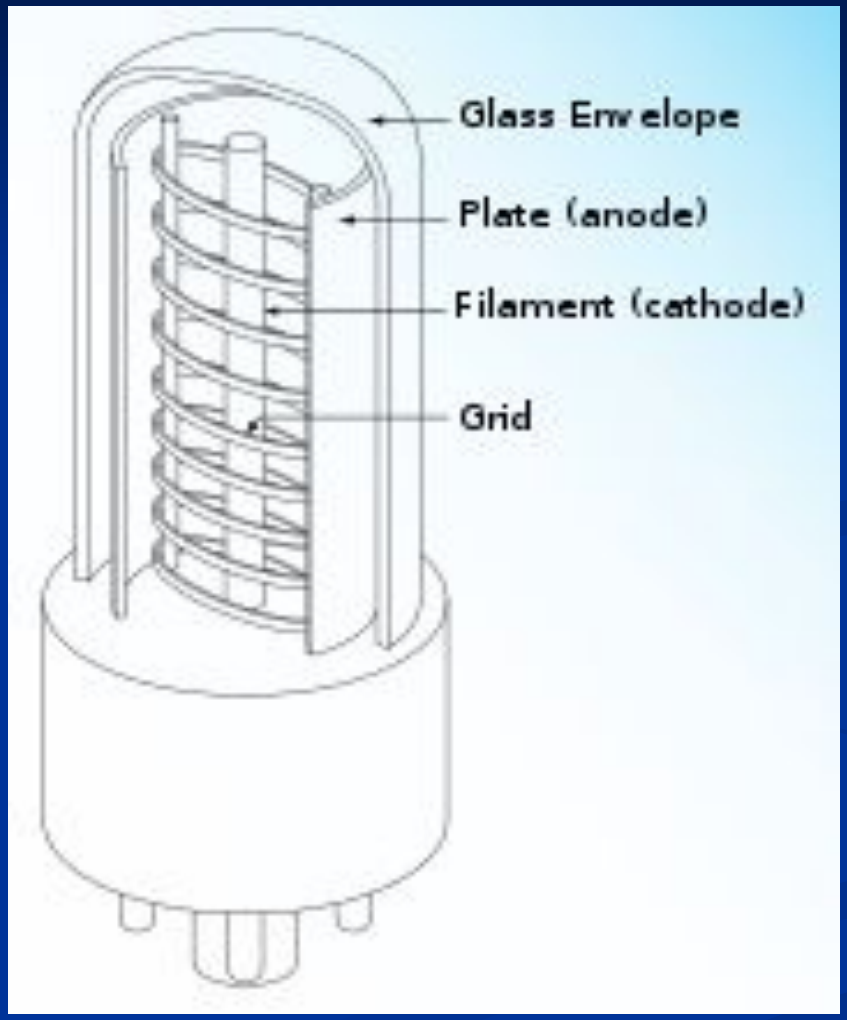
Main processing device : Vacuum tubes

Vacuum tube

Vacuum tube

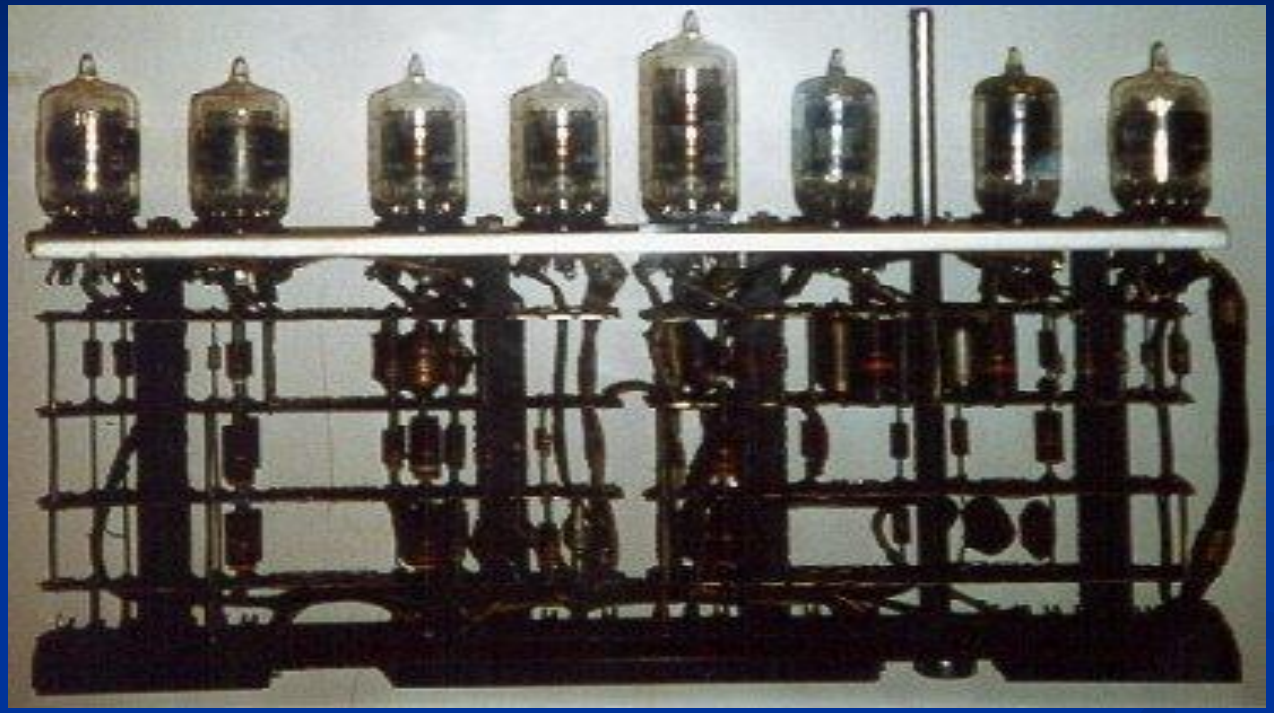


Vacuum tube



Vacuum tube

Vacuum tubes



Observing Vacuum tube

Observing Vacuum tube

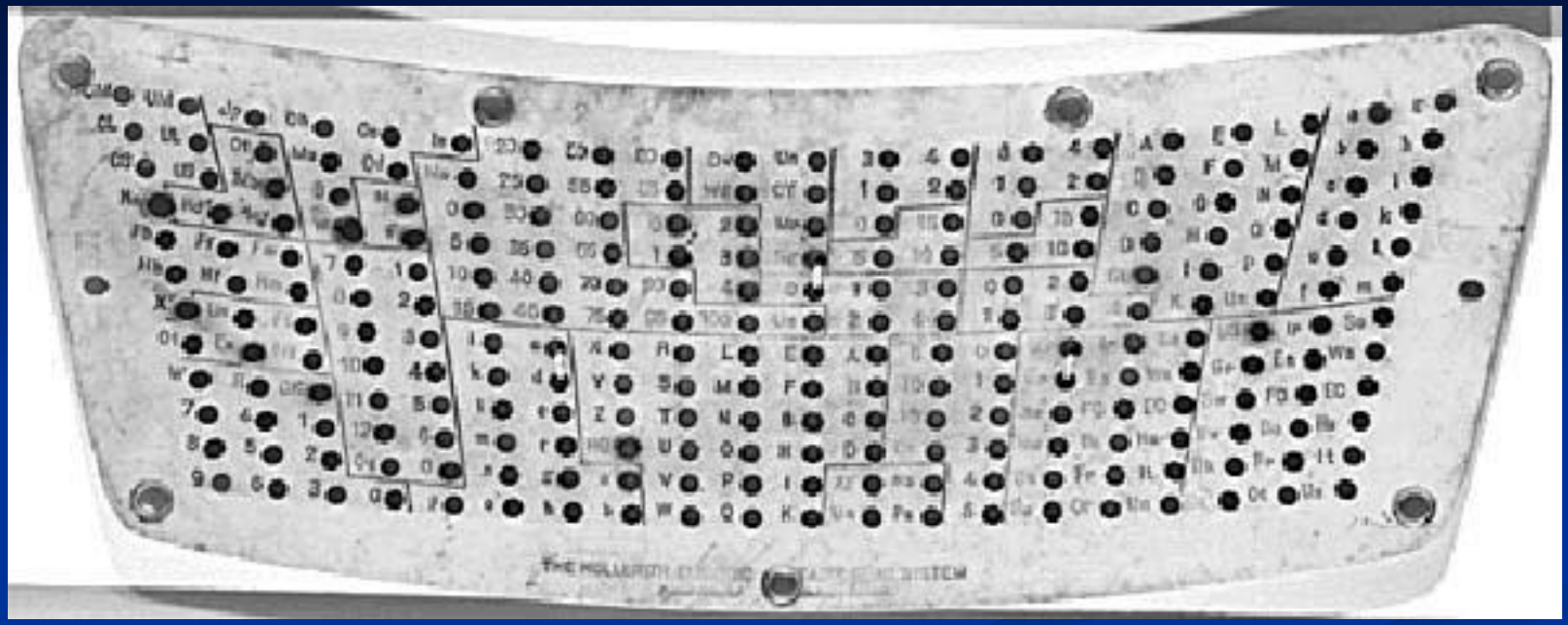
Vacuum tube tester

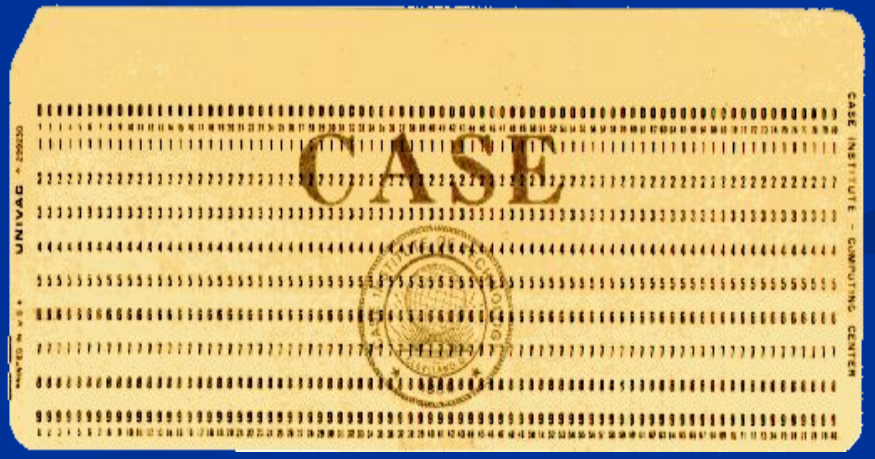
Punched cards

Punched card voting

Punched card decks

Punched cards models





Large punched cards

. First generation computer

Advantages :

. It was only electronic device

. First device to hold memory

Disadvantages :

. Too bulky i.e large in size

. Vacuum tubes burn frequently

. They were producing heat

. Maintenance problems

Too bulky i.e large in size

Vacuum tubes burn frequently

Maintenance problems

. Second generation computer

Period : 1956 – 1963

Inviter : William Shockley

Main processing device : Transistor

Storage media : Magnetic disc

Transistor

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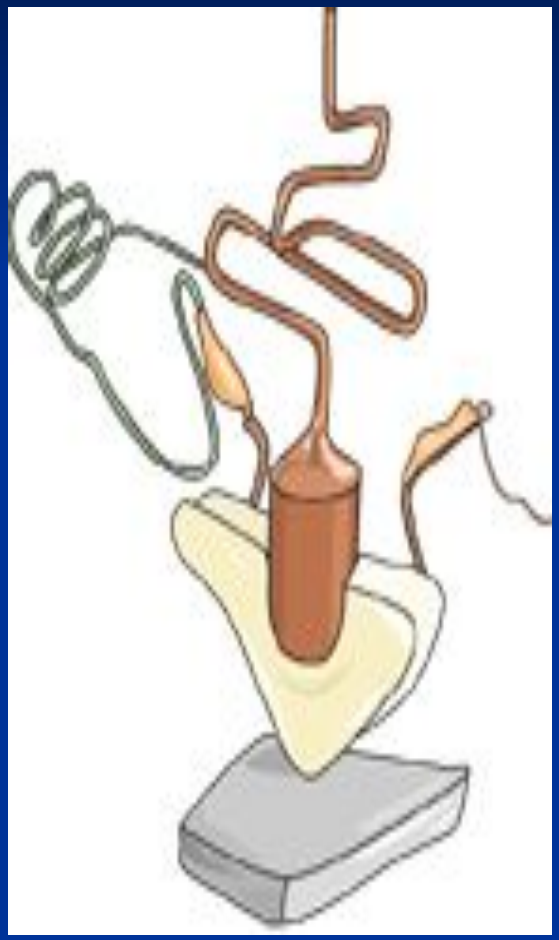

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Transistor board

. Second generation computer

Advantages :

. Size reduced considerably

. The very fast

. Very much reliable

Disadvantages :

. They over heated quickly

. Maintenance problems

. Third generation computer

Period : 1964 – 1971

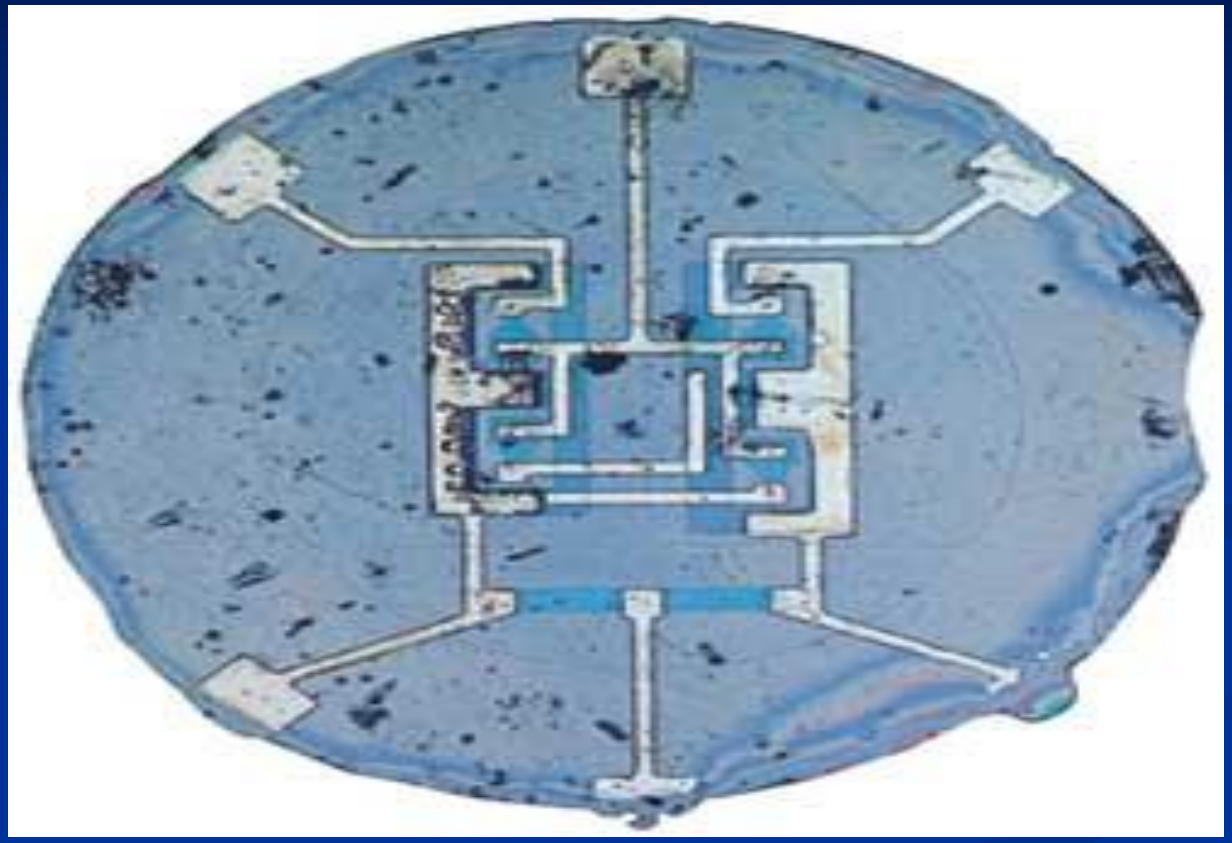
Inviter : Jack Kilby

Robert Noyce

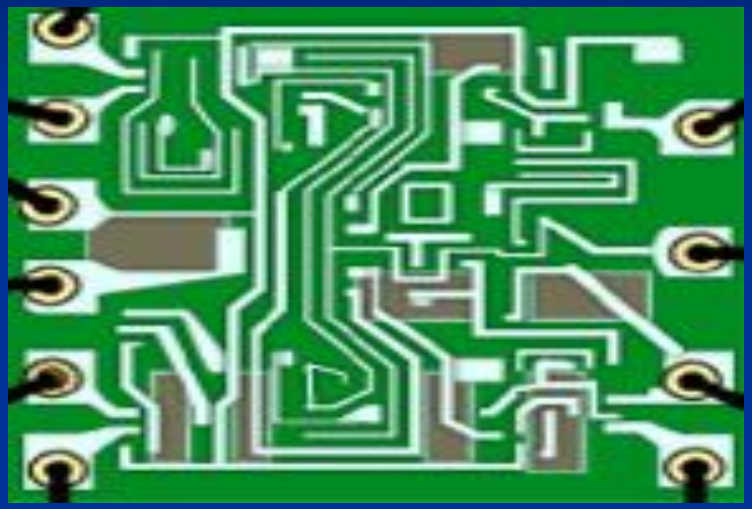
Main processing device : IC (integrated circuit)

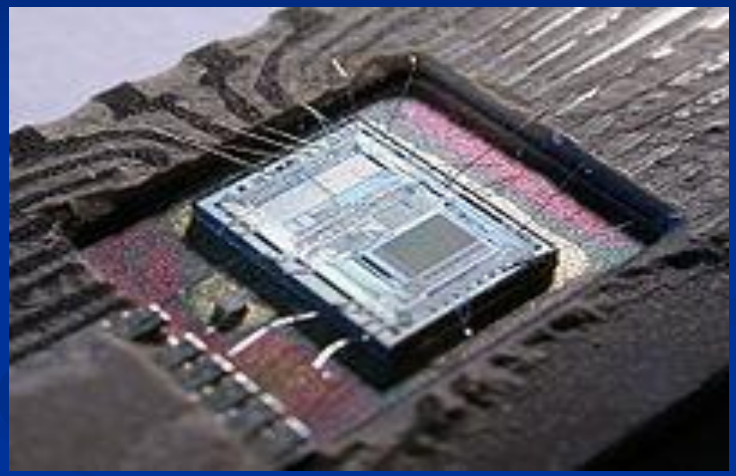
Storage media : Floppies

IC (integrated circuit)



ICs (integrated circuits)





IC (integrated circuit)

. Third generation computer

Advantages :

. ICs are very small in size

. Improved performance

. Production cost cheap

Disadvantages :

. ICs are sophisticated

. Fourth generation computer

Period : 1971– present

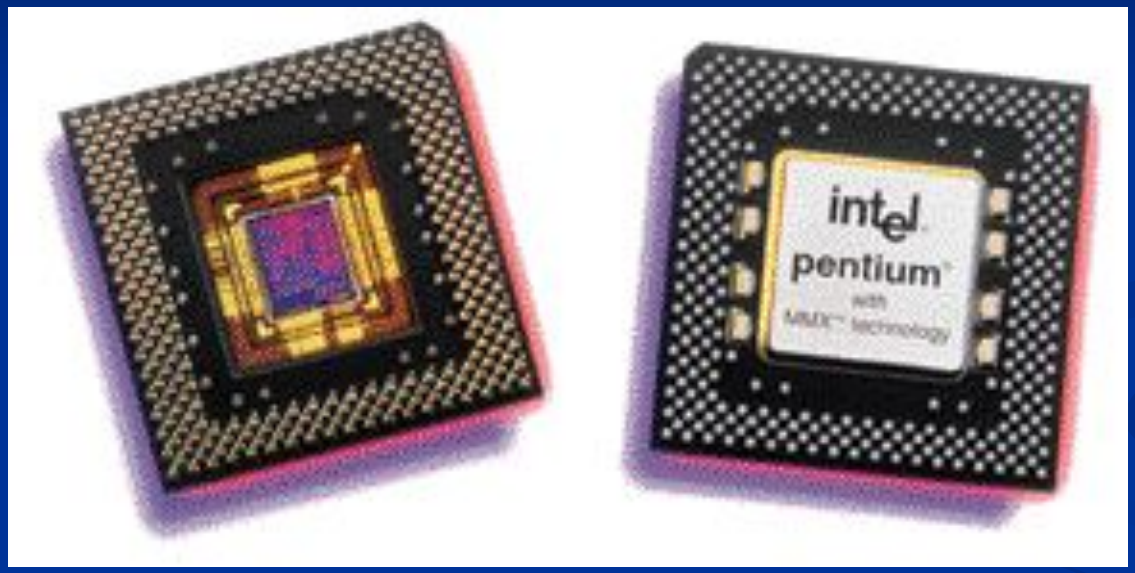
Inviter : Ted Hoff

Main processing device : ICs with VLSI

(Very Large Scale Integration)

Storage media : Floppies, CDs.

ICs with VLSI
(Very Large Scale Integration)



. Fourth generation computer

Advantages :

. It is a compact

. Less power consumption

. Production cost is cheap

Disadvantages :

. No artificial intelligent.

. Fifth generation computer

Period : present and beyond

Main processing device : ICs with parallel processing

Storage media : Video disks

Advantages :

. Artificial intelligence

. Expert system

. First generation computer

Vacuum tubes

. Second generation computer

Transistors

. Third generation computer

ICs

. Fourth generation computer

ICs with VLSI

. Fifth generation computer

ICs with parallel processing

Thank you