COMPUTER FUNDAMENTALS

(Introduction of computer)

Six Day

GENERATION OF COMPUTER

WHAT IS THE GENERATION ?

The computer based upon the older technology of electronics have been replaced by a newer form of machines, and this stages are called Generation of computer.

There are five generations of Computer.

FIRST GENERATION COMPUTER (1946-1959)

(i) Large in size, taking up a lot of space in a room. It weighed over 30 tons

(ii) Very Slow input and output devices.

(iii) High electric consumption.

(iv) Costly to buy.

(v) Limited memory space.

(vi) Depend on vacuum tubes for internal operation.

(Vii) The first generation computers worked on binary-coded concept

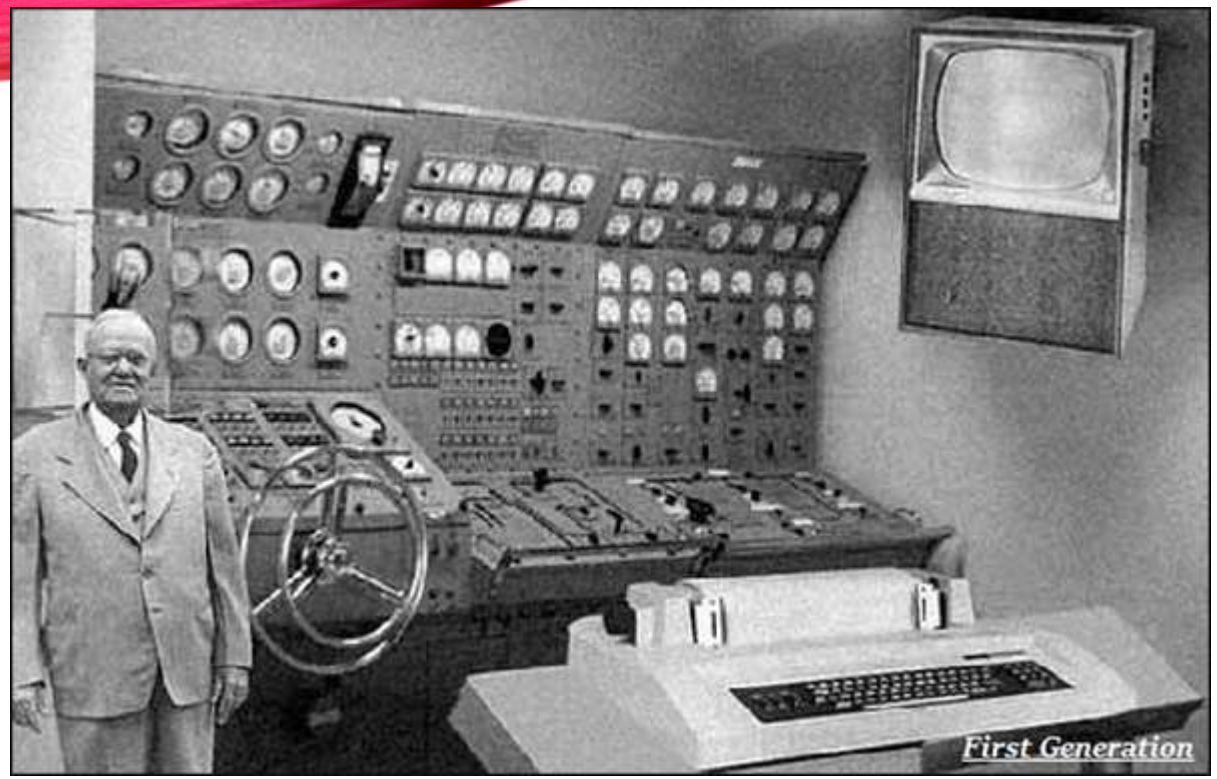
(Language 0,1)

(vii) Required air condition to cool down the heat generated.

(viii) Difficult to maintain.

Ex. Of First Generation Computer:-

1. ENIAC
2. EDVAC
3. UNIVAC
4. IBM-701
5. IBM-650



FIRST GENERATION OF COMPUTER

VACUUM TUBES

SECOND GENERATION COMPUTER (1959-1965)

(i) Small in size.

(ii) Low cost.

(iii) faster than the first generation Computer.

(iv) Less electric consumption.

(v) Increased Memory space.

(vi) Using transistor, replacing the vacuum tube.

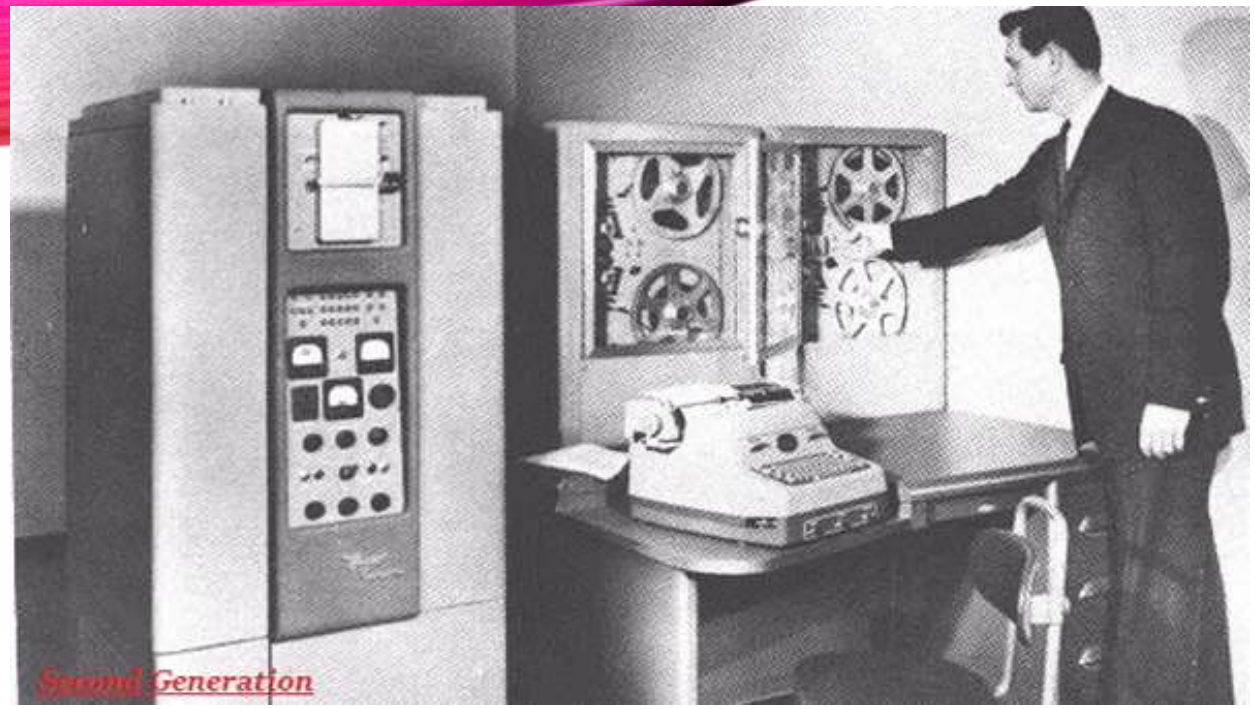
(vii) Generate less heat.

(viii) Easy to maintain.

Example:-

Second Generation Computer:-

1. IBM 1620
2. IBM 7094
3. CDC 1604
4. CDC 3600
5. UNIVAC 1108.



SECOND GENERATION OF COMPUTER

TRANSISTORS

THIRD GENERATION COMPUTER (1965 – 1971)

(i) Small in size.

(ii) Low cost.

(iii) High speed.

(iv) Less electric consumption.

(v) Large Memory space, due to replacement of memory in chip.

(vi) Using integrated circuit (IC) replacing transistor.

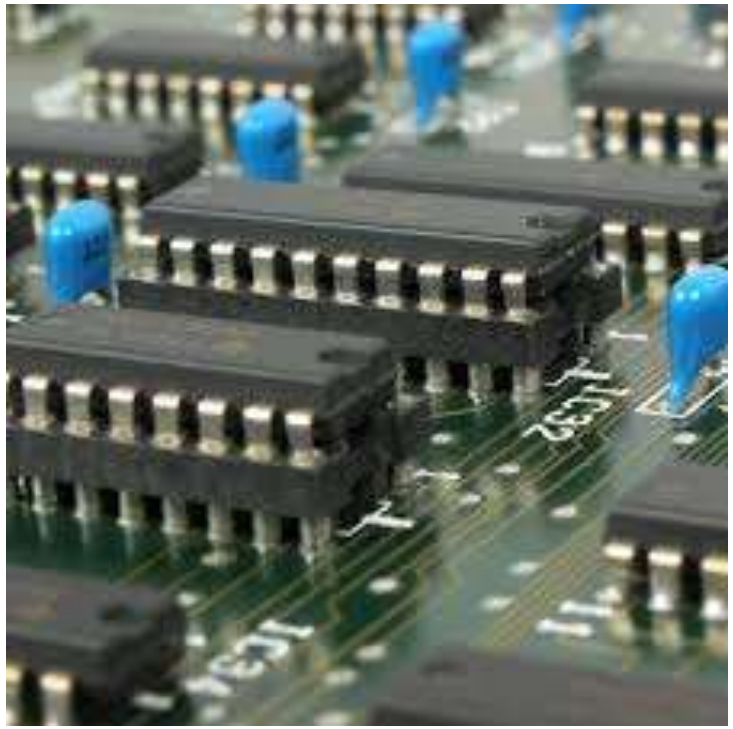
(vii) The third generation computer generated less heat.

(viii) Easy to maintain.

Example:-

Third Generation Computer:-

- IBM-360 series
- Honeywell-6000 series
- PDP (Personal Data Processor)
- IBM-370/168
- TDC-316



THIRD GENERATION OF COMPUTER

IC (Integrated Circuit)

FOURTH GENERATION COMPUTER (1971 – 1980)

(I) Very Small in size.

(ii) Very low cost.

(iii) Very High speed.

(iv) Very less electric consumption.

(v) Much memory space.

(vi) Using VLSI (Very Large Scale Integrated Circuit) replacing IC.

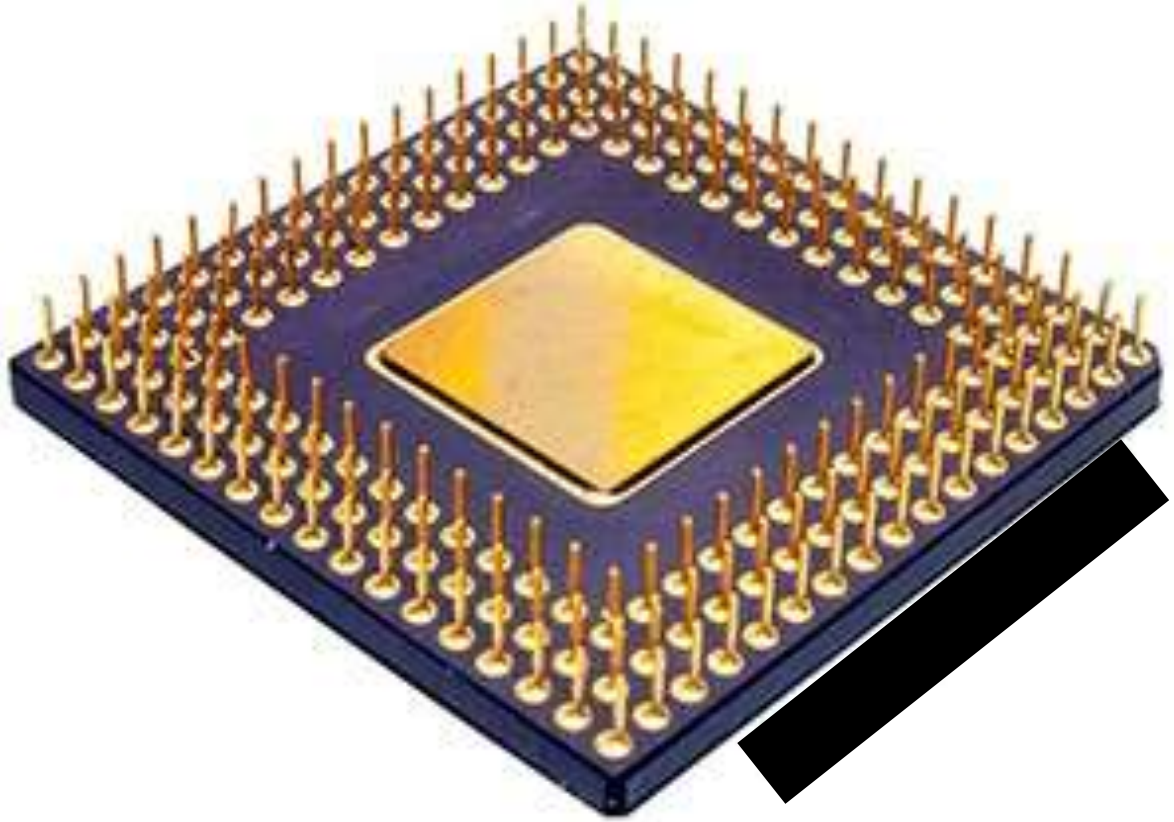
(vii) Generate very less heat.

(viii) Very easy to maintain.

Example:-

Fourth Generation Computer:-

1. DEC 10
2. STAR 1000
3. PDP 11
4. CRAY-1(Super Computer)
5. CRAY-X-MP(Super Computer)



VLSI (Very Large Scale Integrated Circuit)

FOURTH GENERATION OF COMPUTER

FIFTH GENERATION COMPUTER (1981 –TILL DATE)

- ULSI (Ultra Large Scale Integrated) technology
- Development of true artificial intelligence
- Development of Natural language processing
- Development of expert systems to make decisions in real-life situations
- Natural language understanding and generation
- More user-friendly interfaces with multimedia features
- Availability of very powerful and cheaper rates

Some computer types of this generation

are –

1. Desktop
2. Laptop
3. NoteBook
4. UltraBook
5. ChromeBook


intel
Core™ i7


summit
OAK RIDGE
IBM