

Tutorial 01

01. Explain about the computer generations and write down the technologies used.

Abacus which is founded by Chinese is considered as the first ever machine to perform a task. The 'Charles Babbage' discovered the first mechanical computer.

Generation	Technology used
First generation	<ul style="list-style-type: none"> • Vacuum tube • machine language • main memory:- magnetic tapes and magnetic drums • input/output devices:- paper tapes and punch cards • speed & size:- very slow and very large • ex:- IBM 650, IBM 701, ENIAC
Second generation	<ul style="list-style-type: none"> • transistor • programming language:- machine, assembly language • memory:- magnetic core and magnetic tape/disk • input/output:- magnetic tape, punch card • power and size:- smaller in size, low power consumption • generates less amount of heat. • ex:- PDP-8, CDC 3600, UNIVAC 1107
Third generation	<ul style="list-style-type: none"> • integrated circuits • high-level language • large magnetic core, magnetic tape/disk • input/output:- magnetic tape, monitor, keyboard, printer • ex:- IBM 360

Fourth generation

- Very large scale integration (VLSI) and microprocessor (VLSI has thousands of transistors on a single microchip)
- Semiconductor memory (such as RAM, ROM)
- input/output :- pointing devices, optical scanning, keyboard, monitor, printer
- ex:- IBM PC, STAR 1000, APPLE

Fifth generation

- based on AI, uses large scale integration technology and parallel processing method.
- language:- understand human/natural language
- portable and small in size.
- track pad, touch screen, pen, light scanner, printer, keyboard, monitor, mouse
- ex:- desktop, laptop, tablets, smart phones