

## 1) Evolution of Computer:-

A Computer is programmable machine

definition of computer:-

2 (\* That receives input, stores and automatically manipulates data, and provides output in a useful format.)

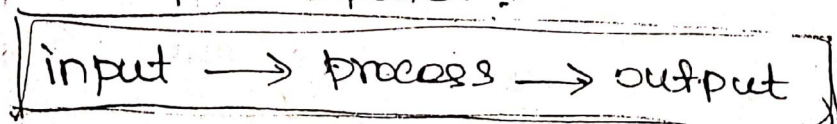
1 (\* Computer is an electronic device) it is used to perform arithmetic operations at high speed. It is also called a calculating device.

3 (\* Mr. Charles Babbage is the Father and of Computer.)

\* He ~~was~~ introduced the concept of storage. Computer can accept input data from the users. The some input devices like keyboard, mouse etc.

\* inputs are processed in central processing unit processed informations are displayed on some output devices such as monitor, printer, etc.

Process of Computer:-



Entering data and Instructions into the Computer by input devices.

Input data can be performed/processed in central processing unit.

Processed data and displayed on some output devices.

## Characteristics of computer:-

- 1) Automatic : it works by itself without human intervention.
- 2) Speed : A computer is a very fast device it can perform in a few seconds than human being.
- 3) Accuracy : Computer in addition to being very fast, computer are very accurate.
- 4) Diligence : A computer is free from tiredness, boredom of some work and lack of concentration.
- 5) versatility : A computer is capable of performing any task.
- 6) Power of Remembering : A computer can store and recall any amount of information because of its secondary storage.

## The Evolution of Computers / History of

### SM Computer:

#### The Mark - I Computer:-

\* In 1937-44, this computer was introduced by Mr. Howard.

\* This was the first fully automatic calculation machine.

\* It was an electro mechanical device. (electronic & mechanical component were used).

#### Antanasoff - Berry Computers:

1) In 1939-42, it was developed by

Dr. John Atanasoff - Berry Computer

- 2) It was called Atanasoff - Berry Computer or ABC
- 3) It was solved certain mathematical equations.
- 4) it used vacuum tubes for internal logic and capacitors for storage.

ENIAC:

- 1) In 1943-46, it was developed by Mr. J. Presper Eckert and John Mauchly.
- 2) Electronic Numerical Integrator and calculator
- 3) it was developed for military.
- 4) This was the first electronic computer

EDVAC:

- 1) In 1946-52, it was developed by Dr. John von Neumann.
- 2) Electronic Discrete Variable Automatic Computer.
- 3) it was designed on stored program concept

EDSAC:

- 1) In 1947-49, it was developed by Professor Maurice Wilkes.
- 2) Electronic Delay Storage Automatic

Name of the Computer	Year	Developers	Design	Expansion	used in
Mark - I	1937-44	Mr. A. Howard	Electromechanical		Electronic &
		Maurice Wilkes			

UNIVAC - I

- 1) In 1951, it was used to business.
- 2) it was the first digital computer.
- 3) Universal Automatic computer.

Name of the Computer	Year	Developers	Design	Expansion	used in
Mark - I	1937-44	Mr. A. Howard	Electromechanical Device (fully automatic calculating machine)	-	Electronic & mechanical Computer
Antanasoff Berry	1939-42	Dr. John Antanasoff	used 45 vacuum tubes for logic and capacitors for storage	ABC (Antanasoff Berry Computer)	Solve mathematical equations
ENIAC	1943-46	Prof. J. Presper Eckert & John Mauchly	used 1800 vacuum tubes (First electronic computer)	Numerical Integrator and Calculator	Military
EDVAC	1946-52	Dr. John von Neumann	used wire	Electronic Discrete variable Automatic Computer	store the program
EDSAC	1947-49	Prof. Maurice Wilkes	digital computer	delay storage Automatic Calculator Universal Automatic computer	Commercial applications
UNIVAC	1951	-	digital	-	-

## Computer generations:-

- \* First generation (1942 - 55)
- \* Second generation (1955 - 64)
- \* Third generation (1964 - 75)
- \* Fourth generation (1975 - 89)
- \* Fifth generation (1989 - Present)

### First generation:

- (i) it was invented on 1942 to 1955
- (ii) These machines were built by using thousands of vacuum tubes.
- (iii) In this machine requires large space to maintain.
- (iv) it emitted large amount of heat
- (v) so it should be placed in air-condition.

### Characteristic of First generation:-

- (i) They were the faster calculating devices of their time.
- (ii) They were too large size, requiring large rooms for installation.
- (iii) it was costly machine.
- (iv) it was difficult to programme and use.
- (v) They are limited commercial use.

### Second generation:

- (i) it was invented on 1955 - 64

(ii) These machines were built by using Transistors.

Characteristics :-

- (i) They were faster than first generation
- (ii) They were much smaller size & require smaller size space
- (iii) It provides less heat
- (iv) They consumed much less power
- (v) more reliable
- (vi) They were easier to program
- (vii) It was costly and difficult to use
- (viii) They had considerable commercial use.

Third generation :-

i) It was invented on 1964-1975

(ii) These machine were built by Integrator chips (IC)

Characteristics :-

- (i) They were much more powerful.
- (ii) They were much smaller, requiring smaller space
- (iii) Heat dissipation was much less
- (iv) They consumed much less power
- (v) They were more reliable
- (vi) They were faster
- (vii) They were to tally general-purpose machines suitable for both scientific & commercial applications.

Characteristics :-

- (i) The PCs were smaller & cheaper
- (ii) it was more powerful
- (iii) They consumed much less power
- (iv) They had faster
- (v) They were totally general-purpose machines
- (vi) GUI (Graphical user Interface) enabled new user to quickly learn how to use Computer.

Fifth generation:-

- (i) it was invented on 1989 - Present
- (ii) These machines were built by VLS, (Ultra Large Scale Integration)

Characteristics :-

- (i) Portable PCs are much more smaller
- (ii) more powerful
- (iii) They consume much less power
- (iv) They are more reliable
- (v) They have faster
- (vi) Totally general-purpose machines
- (vii) more user-friendly interfaces with multimedia features.
- (viii) Newer & more powerful application