Q.1 What is Computer? Explain Characteristics of Computers.

Ans. Computer is an electronic machine with exist good process data and gives layout.

The word computer comes from word "Compute" which means to calculate so a computer is calculating device that can perform arithmetic of speed infect the original object for investing the computer was to create fast calculating machine, but today whatever work done by a computer is non-mathematical or non-numerical in nature.

- **Characteristics of Computer**

1) Accuracy
2) Speed
3) Storage capacity
4) Versatility
5) No-feeling
6) Dumb-terminal

1. **Accuracy** :- The accuracy of the computer is very high.

The degree of accuracy is particular depends upon its computer design.

Error can occur by the computer but there are due to human weakness or due to incorrect data but not due to the technologically weakness.

2. **Speed** :- Computer is very fast device.

It can perform the amount of work in few seconds for which a human can tcke an entire year.

While talking about computers speed we do not talk in terms of second and milliseconds but in microsecond.

3. **Storage capacity :-** Computer can store and recall any amount of data because of its high storage capacity of its storage device.

Even after several years we can recall information if are required.

4. **Versatility** :- Versatility is one of the most wonderful thing about a computer.

At one moment it is preparing the result of a particular examination and work with another task.

The computer is capable of performing almost any task.

5. **No-feeling :-** A computer ha no-feeling because it is machine based out-feeling like task, knowledge and experiences.

6. **Dumb – terminal :-** Computer is not magical device.

It cannot make judgment of its own.

It’s judgments or feelings are based on the instruction given to it by us we can say.

“The Computer is only foods as man makes and use them in a proper way.

Q.2 What is Generation of Computer? Explain in Details.

Ans. In computer language 'generation' is a set of technology. It provides a framework for the growth of computer technology. There are totally five computer generations till to gay they are discussed as follows.

1) First Generation :-

Period : 1942 to 1955
Technology : Vaccum tube which was a glass device that control and amplify electronic signals.
Example : Edsac, Seac, Edvac
Advantages : Vaccumtube technology made possible the advance of electronic digital computer.
Disadvantage : → It can perform calculation in milliseconds but too bulky in size.
→ It was unreliable.
→ Generating too much heat.
→ Commercial production was difficult and costly.
→ Limited commercial use.

2) Second Generation :-

Period : 1955 to 1964
Technology : Transistor was a smaller or more reliable to the vaccum tube.
Advantage : → As compare to first generation computer it was smaller in size.
→ More reliable in information.
→ Less heat then vaccum tube.
→ Wide commercial use.
Disadvantages : → Protection required from heat.
→ Commercial production was difficult and costly.

3) Third Generation :-

Period : 1964 to 1975
Technology : IC (Integrated Circuit)

Electronic technology continue an introducing of silicon chips. This computer generation was design with the help of integrated circuit.

Advantage : → Smaller in size.
→ Generation less heat.
→ Maintains cost is low.
→ Portable.
→ Widely used for commercial application.
Disadvantage : → Air conditioning is required in many cases.
→ Highly sophisticated technology is required for manufacture of IC.

4) Forth Generation :-

Period : 1975 to 1989
Technology : SSI (Small Scall Integration)

MSI (Medium Scall Integration)
LSI (Large Scall Integration)

IC contains only about 10 to 20 components in SSI. Later it possible to 100 components in MSI. And it was possible to 300 components in single chip like LSI.

Advantages : → Smallest in Size.
→ No heat generation.
→ Much Faster in calculation.
→ Easily portable.

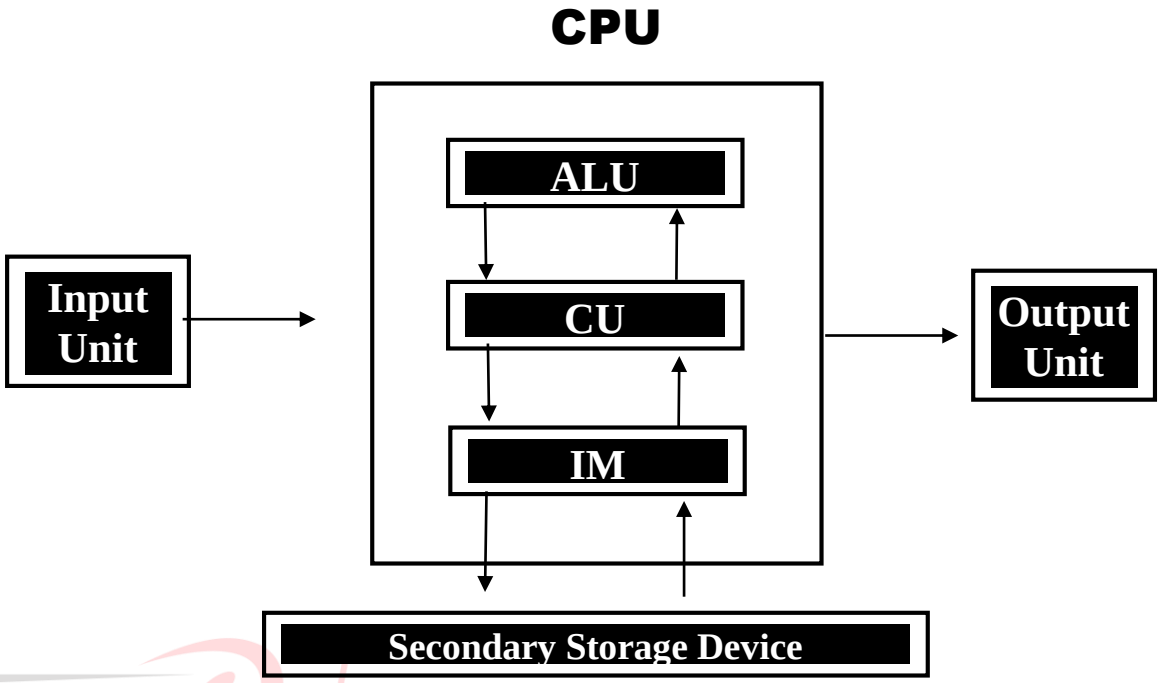
Disadvantage : → highly sophisticated technology is required for the manufacture of LSI.

5) Fifth Generation :-

Period : Present Computers.
Technology : ULS (Ultra Large Scall Integration)

The main aim is to be bring machine with real knowledge of the world with genuine to in structure it will able to do multiple task simultaneously. It will have KIPS (Knowledge Information Processing Systems).

Q.3 Draw Block Diagram of Computer.



ALU – Arithmetic Logic Unit
CU – Central Unit
IM – Internal Memory

A simple computer system comprise the basic components like input device, CPU and output device.

- Input Device : A computer system is only useful in there are data to be processed Input device are use to capture data. There are input devices like mouse and keyboard.
- Output Device : Output devices receives information from the computer and provide them to users the most common output device to are like monitor, printer and speaker.
- CPU : CPU is stand for Central Processing Unit. CPU is called the brain of computer CPU work with ALU and CU processing unit.

Q.4 Explain Types of Memory?

Ans. Main memory can be volatile or non-volatile. In volatile memory the data stored is lost when the power is switch off. RAM chips are volatile memory and ROM chips are non-volatile memory.

- RAM : RAM is stand for Random Access Memory.
  RAM is a volatile memory.
  There are two types of RAM.

  1) DRAM : DRAM is stand for Dynamic Random Access Memory.
  DRAM is a volatile memory that allows fat access to data and is use for primary store of computer system.

  2) SRAM : SRAM is stand for Static Random Access Memory.
  SRAM is also a volatile memory. SRAM is slower than DRAM and it is also more expensive.

- ROM : ROM is stand for Read Only Memory.

  ROM is non-volatile memory.

  Data is written by the manufacture and it cannot be changed.

  1) PROM : PROM is stand for Programmable Read Only Memory.
  PROM is a non-volatile memory which allows the users to write programmer into its.

  2) EPROM & EEPROM : EPROM is stand for Erasable Programmable Read Only Memory.

EEPROM is stand for Electronically Erasable Programmable Read Only Memory.

In this type of memory stored information is erased by using high voltage electric pulses.

Q.5 Explain Classification of Computer?

Ans. 1) Micro Computer
2) Mini Computer
3) Mainframe Computer
4) Super Computer
5) Analog Computer
6) Hybrid Computer

1. Micro Computer :- Micro Computer commonly known as personal computer that make use of microprocessor as the central processer unit.

Micro Computer are characterized by feature such as small size economical and internal memory.

EX : → #IBM – PC (International Business Machine – Personal Computer)
→ #IBM – PC/XT (International Business Machine – Personal Computer / Extended Technology)
→ #IBM – PC/AT (International Business Machine – Personal Computer / Advance Technology)

2. Mini Computer :- Mini Computer are medium size computer designed to support multi user computers.

A Mini Computer is used between the largest multi-user system and smallest user system.

3. Mainframe Computer :- Mainframe Computer are large computer and its use to supporting 100 of users.

Mainframe Computer capable to large internal storage capacity and high processing speed.

Mainframe Computers are mostly used in Government office.

4. Super Computer :- Super Computer are the fastest and most expensive of modern computers.

They are design for high processing application.

Super Computer mostly use for research center, Government agencies, scientific research, engineering function etc.

5. Analog Computer :- Analog Computer is a form of computer.

An Analog Computers are used to solve electronic or mechanical problems.

An Analog Computer is using one kind of physical quantity to represent another computer.

6. Hybrid Computer :- hybrid Computers are digital computers that accept analog signal and converts it in to digital form.

A Hybrid Computer may use or produce analog data.

A Hybrid Computer is used in hospital to measure the heartbeat of the patient.

Hybrid Computer generally used in scientific application or controlling industrial process.