What is computer? Characteristics and Limitations of Computer

What is a computer ?

The word "computer" comes from the word "compute" which means to calculate. So a computer is normally considered to be a calculating device that performs arithmetic operations at enormous speed.

More accurately, a computer may be defined as a device that that operates upon information or data . Now a day's more than 80 % of the work done by computers today is a non mathematical or non- numerical nature.

Modern Definition of computers : A computer is an electronic device which is used to perform operation on raw data as per instruction given by user. All the Plugged with computer system(e.g. keyboard, mouse, printer,CPU etc) is called hardware, the language , instruction, data are the called software.
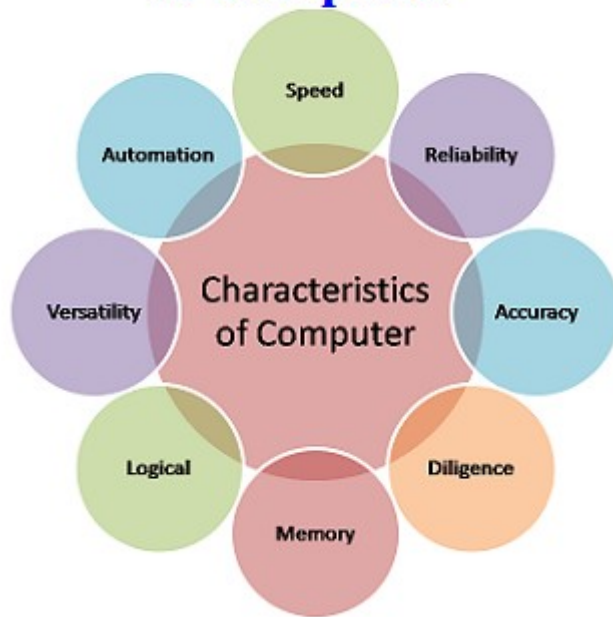

Characteristics or Features of Computer

1. **Speed:** A computer is a very fast device. The computer takes a fraction of seconds to perform any operation. The speed of computer is measured in micro seconds (10^{-3}), Milliseconds (10^{-6}), nanoseconds (10^{-9}) and even Picoseconds (10^{-12}).A powerful computer is capable of performing about 3-4 million simple operations per second.

2. **Accuracy:** The accuracy of computer is very high and the degree of a particular computer depends upon its design. But for a particular computer, each and every calculation is performed with the same accuracy. Errors can occur in a computer but these are mainly due to human rather than technological weakness.

Characteristics / Features of Computer

Speed

Automation

Reliability

Versatility

Characteristics of Computer

Accuracy

Logical

Diligence

Memory

3. **Storage Capacity :** Computers can store data and instruction with a lot of volume and very high efficiency.
4. **Diligence:** unlike human being a computer is free from monotony, tiredness, luck of concentration etc. and hence can work for hours together without creating any error. A computer can perform the last calculation with exactly the same accuracy and seed as the first one.
5. **Automation:** Once a Program is in the computer's memory, CPU follows the instructions until it meets the last instruction. Though the program concept many takes can be performed simultaneously, some on foreground and some on background. Thus automation bring the program execution fast
6. **Reliability:** Because, computer is an electronic device thus it perform all operations with 100 % accuracy and reliability. Reliability can affect only error prone by human mind.
7. **Versatility:** versatility is one of the most wonderful things about the computer. One moment it can do any one operation and next moment if can perform any other operation. A computer is capable of performing almost any task according to given instructions.

Limitation or Drawback of Computer

1. **No I.Q. :** Computer is not a magical device. It performs only those works which man can does but the main difference is that computer can work those operations with very high speed and reliable accuracy. It has no any intelligence quality or thinking power.
2. **No Feeling:** Because computer is only a machine, it has no feeling like human being. It has no brain for thinking as man can does. Man had successes to make computer memory be different inventions of technology but he couldn't make heart.
3. **Data Machine Readable :** Computer data is read by machine, meaning data obtained from the computer can be read by the computer itself.
4. It required power to operate.
5. Problem may occur due to system breakdown.