Classification of Computers

☐ Computers can be classified many different ways -- by size, by function, or by processing capacity.

Functionality wise 4 types

  a) Micro computer
  b) Mini Computer
  c) Mainframe Computer
  d) Super Computer

Microcomputers

➢ *Microcomputers* are connected to networks of other computers.
➢ The price of a microcomputer varies from each other depending on the capacity and features of the computer.
➢ Microcomputers make up the vast majority of computers.
➢ Single user can interact with this computer at a time.
➢ It is a small and general purpose computer.

Mini Computer

☐ **Mini Computer** is a small and general purpose computer.
☐ It is more expensive than a micro computer.
☐ It has more storage capacity and speed.
☐ It designed to simultaneously handle the needs of multiple users.

Mainframe Computer

☐ Large computers are called *Mainframes*.
☐ Mainframe computers process data at very high rates of speed, measured in the millions of instructions per second.
☐ They are very expensive than micro computer and mini computer.
☐ Mainframes are designed for multiple users and process vast amounts of data quickly.
☐ Examples: - Banks, insurance companies, manufacturers, mail-order companies, and airlines are typical users.

Super Computers

☐ The largest computers are *Super Computers*.
☐ They are the most powerful, the most expensive, and the fastest.
☐ They are capable of processing trillions of instructions per second.

It uses governmental agencies, such as:-

- Chemical analysis in laboratory
- Space exploration
- National Defense Agency
- National Weather Service
- Bio-Medical research
- Design of many other machines

Limitations of Computer

◆ Computer cannot take over all activities simply because they are less flexible than humans.

◆ It does not hold intelligence of its own. Its IQ level is zero, till date.

◆ They have to be told what to do. It has to be instructed on what it must do and in what sequence.

◆ A Computer cannot take decisions on its own.

◆ Human beings can make certain judgments in our day to day life based on our feelings, taste, knowledge and experience. It also lack of emotions, so it will not make certain judgments like human.

◆ They cannot perform anything outside the defined scope.

◆ If any unexpected situation arise, computer will either produce erroneous result or discard the task altogether.

EXERCISES

Long Question :

1. What is a Computer? List & explain some important characteristics of a computer.
2. Draw a block diagram to illustrate the basic organization of a computer system and explain the function of the various units.
3. What is a Computer? Briefly explain the functionality wise classification of computer.
4. What do the terms "data", "information" and "data processing" mean?

Short Question:

a) CPU stands for?
b) _____ Computer process millions of instructions per second.
c) The brain of a computer system is _____.   (Ans. CPU)
d) _____ Computer process trillions of instructions per second.
e) Computer divided in to how many units?
f) Central Processing Unit divided in to how many units?
g) Who is the father of modern digital Computer?
h) Single user can interact with Micro Computer at a time. (True / False)
i) Multiple users can interact with Mini Computer at a time. (True / False)
j) _____ is a smallest unit of information that is use in computer system.