1.Computer Basics:

CPU: A central processing unit (CPU), also called a central processor or main processor, is the electronic circuitry within a computer that carries out the instructions of a computer program by performing the basic arithmetic, logic, controlling, and input/output (I/O) operations specified by the instructions.

RAM: Random Access Memory (or simply RAM) is the memory or information storage in a computer that is used to store running programs and data for the programs.

HARDWARE: Computer hardware includes the physical, tangible parts or components of a computer, such as the cabinet, central processing unit, monitor, keyboard, computer data storage, graphics card, sound card, speakers and motherboard.

SOFTWARE: Computer software, or simply software, is a collection of data or computer instructions that tell the computer how to work. This is in contrast to physical hardware, from which the system is built and actually performs the work.

VIRUS: A computer virus is a type of malicious software that, when executed, replicates itself by modifying other computer programs and inserting its own code.

WORM: A computer worm is a standalone malware computer program that replicates itself in order to spread to other computers.

TROJAN: In computing, a Trojan horse, or Trojan, is any malware which misleads users of its true intent.

DATA INFORMATION KNOWLEDGE WISDOM:

DATA: information, often in the form of facts or figures obtained from experiments or surveys, used as a basis for making calculations or drawing conclusions

INFORMATION: definite knowledge acquired or supplied about something or somebody

KNOWLEDGE: general awareness or possession of information, facts, ideas, truths, or principles

WISDOM: the knowledge and experience needed to make sensible decisions and judgments, or the good sense shown by the decisions and judgments made

FEATURES OF A COMPUTER: **1. Speed: -** As you know computer can work very fast. It takes only few seconds for calculations that we take hours to complete. You will be surprised to know that computer can perform millions (1,000,000) of instructions and even more per second.

Therefore, we determine the speed of computer in terms of microsecond (10-6 part of a second) or nanosecond (10 to the power -9 part of a second). From this you can imagine how fast your computer performs work.

2. Accuracy: - The degree of accuracy of computer is very high and every calculation is performed with the same accuracy. The accuracy level is **7.**

determined on the basis of design of computer. The errors in computer are due to human and inaccurate data.

3. Diligence: - A computer is free from tiredness, lack of concentration, fatigue, etc. It can work for hours without creating any error. If millions of calculations are to be performed, a computer will perform every calculation with the same accuracy. Due to this capability it overpowers human being in routine type of work.

4. Versatility: - It means the capacity to perform completely different type of work. You may use your computer to prepare payroll slips. Next moment you may use it for inventory management or to prepare electric bills.

5. Power of Remembering: - Computer has the power of storing any amount of information or data. Any information can be stored and recalled as long as you require it, for any numbers of years. It depends entirely upon you how much data you want to store in a computer and when to lose or retrieve these data.

6. No IQ: - Computer is a dumb machine and it cannot do any work without instruction from the user. It performs the instructions at tremendous speed and with accuracy. It is you to decide what you want to do and in what sequence. So a computer cannot take its own decision as you can.

7. No Feeling: - It does not have feelings or emotion, taste, knowledge and experience. Thus it does not get tired even after long hours of work. It does not distinguish between users.

8. Storage: - The Computer has an in-built memory where it can store a large amount of data. You can also store data in secondary storage devices such as floppies, which can be kept outside your computer and can be carried to other computers.

TYPES OF COMPUTERS:

Minicomputers (midrange computers)

Minicomputers (colloquially, minis) are a class of multi-user computers that lie in the middle range of the computing spectrum, in between the smallest mainframe computers and the largest single-user systems (microcomputers or personal computers).

Mainframe computers

The term mainframe computer was created to distinguish the traditional, large, institutional computer intended to service multiple users from the smaller, single user machines. These computers are capable of handling and processing very large amounts of data quickly.

Microcomputers (personal computers)

Microcomputers became the most common type of computer in the late 20th century. The term "microcomputer" was introduced with the advent of systems based on single chip microprocessors.

Supercomputers

A Supercomputer is focused on performing tasks involving intense numerical calculations such as weather forecasting, fluid dynamics, nuclear simulations, theoretical astrophysics, and complex scientific computations.

STORAGE MEASUREMENT: Computer storage is measured in bytes, kilobytes (KB), megabytes (MB), gigabytes (GB) and increasingly terabytes (TB). One byte is one character of information, and is comprised of eight bits (or eight digital 1's or 0's).

Bytes Reference

Unit	Symbol	bytes
byte	B	1
kilobyte	kB	1024 = 210
megabyte	MB	220
gigabyte	GB	230
terabyte	TB	240
petabyte	PB	250
exabyte	EB	260
zettabyte	ZB	270
yottabyte	YB	280
nibble	---	0.5 = 1/2
bit	b	0.125 = 1/8

TYPES OF SOFTWARE: A set of instructions that achieve a single outcome are called program or procedure. Many programs functioning together to do a task make a software.

There are two categories of software –

- System Software
- Application Software

FIRMWARE: In electronic systems and computing, firmware is a specific class of computer software that provides the low-level control for the device's specific hardware.