

Class: 6th**Subject: Computer Science****Lesson No 1. [Fundamentals of computer]*****Points at a glance:***

- i. A computer is an electronic device that can read and write, compare and compute large volumes of data with enormous speed, accuracy and reliability. In other words, a computer is an electronic device that accepts data, processes it, produces the result and stores it for future use.
- ii. A computer does four main jobs: It **inputs** data, **Processes** it, displays the **output** from the data as information and finally **stores** it.
- iii. The various characteristics of computers are: Speed, Accuracy, Reliability, Storage Capacity, Versatility, Deligence etc.
- iv. The data that we feed into a computer is called input.
- v. The result obtained after processing input is called the output.
- vi. Transformation of data into information is called processing.
- vii. The person who uses the computer is called a user.
- viii. All the physical and mechanical equipments attached together to make a computer system are called hardware.
- ix. A command given to a computer system is called an instruction.
- x. A collection of logically related instructions is called a computer program.
- xi. The various input devices are: Keyboard, Mouse, Scanner, Bar Code Reader, Joystick, Graphic Tablet, Digital Camera, MICR, Touch Screen. Microphone etc.,.
- xii. The various output devices are: Monitor, Printer, Speakers etc.,.
- xiii. The various storage devices are: Hard Disk Drive (HDD), Optical Disc (CD-ROM, DVD-ROM, Blue Ray Disc), Flash drive, Memory Card etc.,.
- xiv. The CPU consists of three parts: ALU (Arithmetic Logic Unit), CU(Control Unit), and MU (Memory Unit)
- xv. Memory is the storage place where data and instuctions are stored.
- xvi. Printers can be classified into two categories : Impact and Non Impact printers.
- xvii. Printers that have direct contact between printer head and paper are known as impact printers and printers that do not have direct contact between printer head and paper are known as Non – Impact printers.
- xviii. The information we get as a printout on paper is called a hard copy.
- xix. Monitor is also known as Screen, Display, Video screen, Video Display Unit (VDU)
- xx. CD-ROM stands for Compact Disc- Read Only Memory
- xxi. DVD stands for Digital Versatile Disc Or Digital Video Disc.
- xxii. A CD- ROM can hold up to 700 MB of data . DVD can hold from 4 GB to 7.5 GB of data.
- xxiii. The ALU is a component of the processor which performs arithmetic, Comparison and logical operations.
- xxiv. Arithmetic operations include – addition, subtraction, multiplication and division.

- xxv. Comparison operations involve comparing one data item with another. For e.g., greater than, less than or equal to etc.
- xxvi. Logical operations use conditions along with logical operators such as AND, OR and NOT.

Exercises [Formative and Summative]

Solved Textual Questions

1. Tick (✓) the correct answer:
 - a. Data
 - b. Input device
 - c. Processing
 - d. Storage device
 - e. Output devices
 - f. CPU
 - g. 4 GB
2. Fill in the blanks
 - a. Input
 - b. Processing
 - c. Output
 - d. Joystick
 - e. Hard copy
3. Define the following
 - a. **Data:** Data is the collection of unorganized facts, which can include words, numbers, images or sounds.
 - b. **Information:** Information is a processed data that is organised, meaningful and useful.
 - c. **Pen drive:** Pendrives, also known as Flash drives, are portable, light weight, and rewriteable storage devices that plug in a USB (Universal Serial Bus) port on a computer.
 - d. **Input devices:** The devices that are used to enter data, instructions and commands into a computer are called input devices.
 - e. **Output devices:** Any hardware component that can convey information to a user is called an output device.
 - f. **Cloud storage:** Cloud storage is an internet service that provides storage facility to computer users.
4. Name the following

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- a. Four major parts of the computer: Keyboard , Mouse, CPU, and Monitor
 - b. Four input devices: Keyboard, Mouse, Scanner, Joystick
 - c. Two output devices: Monitor, Printer
 - d. Two storage devices: Hard disk, Flash drive
 - e. Two types of printers: Impact printers and Non impact printers
 - f. Two pointing devices: Mouse, Joystick
5. Write 'T' for True and 'F' for False statement.
- a. False b. False c. True d. True e. False
6. Answer the following questions
- a. A computer is an electronic device that accepts data, processes it, produces the result and stores it for future use. A computer is called a computer system, as it is not a single machine but a collection or combination of many devices which work together to perform a task.
 - b. An optical disc is a type of storage media that consists of a flat, round, portable disc made of metal, plastic and lacquer that is written and read by a laser.
The various types of Optical discs are:
Compact Disc (CD), Re-writable CDs and DVDs, Blue Ray Disc etc.
 - c. The processor or Central Processing Unit(CPU), also known as the brain of the computer, is the processing device of a computer which performs all the calculations and processes data into information. It receives the input from the input devices and processes them before providing the processed result to the output devices.
 - d. Graphic tablet, also called Digitizer, is an input device which has a special pen (stylus) to write on it and is used to draw images on the computer.
 - e. **Hardware:** The physical and mechanical equipments attached together to make a computer system are called hardware.
Software: Software is a collection of programs that makes a computer understand the user's requirements, functions to be performed, and the desired output to be produced to the user. In other words, Software is a set of instructions, organized for a common purpose, that tells the computer hardware what to do and how to perform a particular job.
 - f. **Dot matrix printer:** This printer contains movable print head with pins that strike the ribbon, placing a dot on the paper. These printers are less expensive but are very noisy. The speed of this printer is given in CPS(Character Per Second).

Laser Printer: This printer uses laser technology to print text or images on paper. It gives the best quality output and is the most expensive. The speed of this printer is given in PPM (Pages Per Minute).