

Chapter-1:

Hardware Components of a Computer

ACTIVITY – Answers

1. Write a short note on CPU and its components.

Answer:

CPU (Central Processing Unit) is the brain of the computer. It processes all instructions and controls the working of the computer.

It has three main components:

- **ALU (Arithmetic Logic Unit):** Performs mathematical calculations and logical operations.
- **CU (Control Unit):** Controls and coordinates all activities of the computer.
- **Memory Unit:** Stores data and instructions temporarily for processing.

2. State the purpose of SMPS.

Answer:

SMPS (Switched Mode Power Supply) is used to supply power to all components of a computer. It converts AC (Alternating Current) from the main supply into DC (Direct Current) required by the computer.

3. Briefly explain the use of any two ports.

Answer:


- **USB Port:** Used to connect devices like keyboard, mouse, pen drive, and printer to the computer. It also provides power to connected devices.
- **VGA Port:** Used to connect a monitor to the computer for displaying output.

LET'S WORKOUT

A. Tick (✓) the correct option

1. Which type of device is a CPU?

Answer: d. Processing device

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2. _____ supplies power to the different components of a computer.
Answer: c. SMPS
 3. Which of the following devices stores data on optical disc?
Answer: a. CD
 4. Which of the following is used to connect a peripheral device to the computer?
Answer: c. Port
 5. Which of the following devices is used to get audio output?
Answer: a. Sound card

B. Fill in the blanks

(Hints: Heat sink, Internal, CMOS, Modulator, Keyboard)

1. Disc drive is an **internal** device.
2. **Keyboard** generates a unique set of binary numbers.
3. **Heat sink** dissipates heat out of the system.
4. MODEM stands for **Modulator** Demodulator.
5. **CMOS** chip stores low-level system information.

C. Write T for True and F for False

1. VGA ports are specifically designed to accept sound input.
Answer: F
2. ROM stores the firmware of a computer.
Answer: T
3. A hard disk converts data in the form of 0s and 1s and stores them.
Answer: T
4. SMPS takes AC current and converts it into DC current.
Answer: T
5. Modem connects your computer to the Internet via telephone lines.
Answer: T

D. Answer the following questions

1. Define ports. Name any two types of ports along with their uses.

Answer:

Ports are connection points on a computer used to connect external devices.

Types of ports:

- **USB Port:** Used to connect devices like keyboard, mouse, pen drive.
- **VGA Port:** Used to connect monitor to the computer.

2. What is the difference between internal and external hardware components? Explain with examples.

Answer:

Internal Hardware	External Hardware
Located inside the CPU cabinet	Located outside the computer
Not visible easily	Easily visible
Example: CPU, RAM, motherboard	Example: Keyboard, mouse, printer

3. What do you understand by the term Motherboard? Also state its purpose in a computer system.

Answer:

The motherboard is the main circuit board inside a computer that connects all hardware components.

Purpose:

- Connects all parts like CPU, RAM, storage devices
- Allows communication between components
- Acts as the backbone of the computer

4. What is the role of CPU? What are its various parts?

Answer:

CPU (Central Processing Unit) is the brain of the computer. It processes data and controls all operations.

Parts of CPU:

- **ALU (Arithmetic Logic Unit):** Performs calculations
- **CU (Control Unit):** Controls operations
- **Memory Unit:** Stores data temporarily



5. Write short notes on:

a. Modem

A modem connects a computer to the internet. It converts digital signals into analog and vice versa.

b. Graphic Card

It helps display images and videos on the monitor. It improves graphics quality.

c. SMPS

SMPS (Switched Mode Power Supply) supplies power to the computer and converts AC to DC.

d. Pen Drive

A pen drive is a portable storage device used to store and transfer data.

Let's Get Ready – Circle the odd one out

1. Monitor, CPU, Printer, Speakers, Projector
Answer: CPU
2. Plotter, Mouse, Keyboard, Scanner, Microphone
Answer: Plotter
3. Hard disk, Monitor, CD, DVD, Pen drive
Answer: Monitor
4. CPU, Mouse, Keyboard, Webcam, Joystick
Answer: CPU

Myths & Facts

1. Microphones are used to input audio data into the computer.
Answer: Fact
2. Graphic Tablets are used for gaming and simulations.
Answer: Myth
3. Joystick comes with a stylus.
Answer: Myth
4. Scanners are used to convert physical documents into digital formats.
Answer: Fact

Let's Apply



Question:

Naman wants to save a copy of his certificates on his computer. Which device will he use?

Answer:

He will use a **scanner** to create digital copies.