

1. Which of the following is NOT a component of the CPU?

ANS:-RAM

2. What is the function of RAM in a computer?

ANS:-RAM temporarily stores data and programs that the computer is currently using so the CPU can access them quickly.

3. Which of the following is a primary storage device?

ANS:-HDD AND SSD

4. What is the purpose of a GPU?

Ans:-A **GPU (Graphics Processing Unit)** is responsible for rendering images, videos, and animations. It handles graphics-related tasks and improves performance in gaming, video editing, and graphic design.

5. The motherboard is the main circuit board of a computer where other components are attached.

Ans:-True

6. A UPS (Uninterruptible Power Supply) is a hardware device that provides emergency power to a load when the input power source fails.

Ans:- True

7. An expansion card is a circuit board that enhances the functionality of a component.

Ans:-True

8. Explain the difference between HDD and SSD.

- **HDD (Hard Disk Drive):**
 - Uses spinning magnetic disks
 - Slower performance
 - Cheaper and larger storage capacity
- **SSD (Solid State Drive):**
 - Uses flash memory much faster and more durable.

9. Describe the function of BIOS in a computer system.

Ans:-BIOS (**Basic Input/Output System**) initializes and tests hardware components when the computer starts. It also loads the operating system into memory and allows users to configure basic system settings.

10. List and briefly explain three input devices commonly used with computers.

- **Keyboard:** Used to enter text and commands
- **Mouse:** Used to point, click, and interact with the graphical interface
- **Scanner:** Converts physical documents or images into digital form.

11. Identify and label the following components on a diagram of a motherboard:

Since I can't draw directly here, this is where you'd label them on a motherboard diagram:

- **CPU:** Located in the CPU socket near the center/top of the motherboard
- **RAM slots:** Long, narrow slots located next to the CPU socket
- **SATA connectors:** Small L-shaped ports usually found along the edge of the motherboard for connecting storage drives
- PCI-E Slot

12. Demonstrate how to install a RAM module into a computer

Ans:-Steps:

1. Turn off the computer and unplug it.
2. Open the computer case.
3. Find the **RAM slots** on the motherboard.
4. Open the clips on both sides of the RAM slot.
5. Align the notch on the RAM with the slot.
6. Press the RAM firmly until the clips lock.
7. Close the case and power on the computer.

13 .Importance of proper cooling in a computer system

Ans:-Why cooling is important:

- Prevents overheating
- Protects components
- Improves performance
- Increases system life

Cooling methods:

- **Air cooling:** Uses fans (most common and cheap)
- **Heat sink:** Absorbs heat from CPU
- **Liquid cooling:** Uses liquid to remove heat (more effective, expensive)

14 .Bus width and its significance

Ans:-Bus width means how much data a computer can transfer at one time.

- Wider bus = more data at once
- Narrow bus = less data at once

Significance:

- A wider bus makes the computer **faster**
- Improves overall performance