

Assignment-2

Module 2 : Installation and Maintenance of Hardware and Its Components

Section 1: Multiple Choice

1. Which of the following precautions should be taken before working on computer hardware?

Ans : (b) Wear an anti-static wrist strap to prevent damage from electrostatic discharge.

2. What is the purpose of thermal paste during CPU installation?

Ans : (c) To improve thermal conductivity between the CPU and the heat sink.

3. Which tool is used to measure the output voltage of a power supply unit (PSU)?

Ans : (a) Multimeter

4. Which component is responsible for storing BIOS settings, such as date

and time, even when the computer is powered off?

Ans : (a) CMOS battery

Section 2: True or False:

5. When installing a new hard drive, it is essential to format it before use.

Ans : True

6. A POST (Power-On Self-Test) error indicates a problem with the CPU.

Ans : False

7. It is safe to remove a USB flash drive from a computer

without ejecting it first.

Ans : False

Section 3: Short Answer

8. Describe the steps involved in installing a new graphics card in a desktop computer.

Ans :

Shut down the computer and unplug all cables.

Open the computer case.

Remove the old graphics card

Insert the new graphics card

Connect the required *power connectors to the card.

Close the computer case

Reconnect cables and power on the computer

Install or update the graphics drivers.

9. What is RAID, and what are some common RAID configurations?

Ans : RAID (Redundant Array of Independent Disks) is a storage technology that combines multiple physical hard drives or SSDs into a single logical unit to improve performance, data redundancy, or both.

1. RAID 0 - Data is split across two or more drives.
2. RAID 1 - Data is duplicated on two drives.
3. RAID 5 - Data and parity information are distributed across three or more drives.
4. RAID 6 - Similar to RAID 5 but with two parity blocks.

Section 4: Practical Application

10. Demonstrate how to replace a CPU fan in a desktop computer.

Ans :

- Shut down the computer and unplug the power cable.
- Open the computer case.
- Locate the CPU fan and disconnect its cable from the motherboard.

- Remove the screws, clips, or push pins securing the old fan.
- Clean off old thermal paste.
- Apply new thermal paste.
- Reconnect the fan cable to the CPU fan.
- Close the case start pc.

Section 5: Essay

11. Discuss the importance of regular maintenance for computer hardware and provide examples of maintenance tasks.

Ans : Regular maintenance of computer hardware is important to ensure optimal performance, longer lifespan, reliability, and reduced risk of failure.

Importance of Regular Hardware Maintenance:

Improves Performance
Prevents Overheating
Reduces Risk of Failure
Protects Data
Saves Money

Examples of Hardware Maintenance Tasks:

Cleaning Internal Components
Checking and Securing Cables
Updating Drivers and Firmware
Replacing Thermal Paste
Power Supply Inspection
Backing Up Data

