

Assignment module 2 : Installation and Maintenance of Hardware and Its Components

Δ 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

Δ Section 2: True or False

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

Ans:- True

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

Ans:-False

7. True or False: It is safe to remove a USB flash drive from a computer without ejecting it first.

Ans:-False

Δ Section 3: Short Answer

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

Ans:-

- (1) Turn off the computer and unplug it.
- (2) Open the side panel of the case.
- (3) Remove the old graphics card, if present.
- (4) Insert the new graphics card into the PCIe slot.
- (5) Secure the card with a screw.
- (6) Close the side panel and plug the computer back in.

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

Ans :- Raid is use for create a chain in a multiple hard disk, also use for HDD/SSD merging.

There are four types of RAID: -

- I) RAID 0 :- In this RAID we get fast speed for processing. Data Backup process is 50%-50%.
- II) RAID 1:- In this RAID low speed for processing. Data Backup process is 100% in multiple hard disk.
- III) RAID 5/6 :- In this RAID we get faster than RAID 0 for processing. Data Backup process is stripe wise in all hard disk.
- IV) RAID 10 :- In this RAID, this is mix of RAID-0 & RAID-1. speed process is like a RAID -0 & Data Backup process is like a RAID-1

Δ Section 4: Practical Application

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

Ans :- Done in Lab

Δ Section 5: Essay

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

Ans :-

- I) Improved Performance: Regular cleaning, updating, and replacing parts lead to smoother operation, faster processing, and reduced lag.
 - II) Increased Reliability: Maintenance helps prevent unexpected crashes, ensuring stability.
 - III) Improved Security: Keeping security software updated and running malware scans protects against viruses and threats.
 - IV) Data Protection: Regular backups safeguard data from loss or corruption due to hardware Failures.
 - V) Extended Lifespan: Consistent maintenance helps prolong the life of the computer.
- Cleaning and dusting.
 - Updating firmware and drivers.
 - Replacing and upgrading components.
 - Troubleshooting and repairing issues.
 - Monitoring and testing performance.
 - Removing unused programs.
 - Defragmenting your hard drive.