

**Assignment : - 1**

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**Module 2 :- Installation and Maintenance of Hardware and Its**

**Section 1: Multiple Choice**

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

**a) Ensure the computer is plugged in to prevent electrostatic discharge. b) Wear an anti-static wrist strap to prevent damage from electrostatic discharge.**

**c) Work on carpeted surfaces to prevent slipping.**

**d) Use magnetic tools to handle components more easily.**

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

**Note:-** Because it does not cause any kind of harm to the user

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

**a) To insulate the CPU from heat.**

**b) To provide mechanical support for the CPU.**

**c) To improve thermal conductivity between the CPU and the heat sink.**

**d) To prevent the CPU from overheating.**

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

**Note:-** Because CPU does not over hit during installation and smooth processes Thay.

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

**a) Multimeter b) Screwdriver**

**c) Pliers d) Hex key**

**Ans** :- a) Multimeter

**Note:-** Because Multimeter is measure output voltage power supply

**4. Which component is responsible for storing BIOS settings, such as date and time, even when the computer is powered off?**

**a) CMOS battery b) CPU**

**c) RAM d) Hard drive**

**Ans :-** a) CMOS battery

**Note**:- The CMOS battery saves the BIOS settings and date and time when the computer is turned off**.**

**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

**Note:-** It checks the computer's hardware to see whether they are working properly or not.

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

**Ans**:- False

**Note:-** Ejecting the USB drive may cause its data to be encrypted

**Section 3: Short Answer**

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

**Ans :-**Prepare: Make sure you have the right tools, like a Phillips screwdriver, and that your power supply can support the new graphics card .

1 )Remove the old graphics card: Open the case, locate the screws holding the old card in place, and remove them. Unplug the power connectors.

2)Insert the new graphics card

3) Secure the card: Use the screws you removed earlier to secure the card to the slot.

4)Connect the power cables: Connect the power cables to the graphics card.

5)Close the case and start the computer: Put the case back together, plug in the power supply, and turn on the computer.

6)Install the drivers: The computer will search for drivers when it starts up for the first time. Use the latest drivers to get the most out of the new card.

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

**Ans :-** RAID stands for Redundant Array of Independent Disks, and it's a technology that stores data across multiple hard drives or solid-state drives (SSDs) to protect it in case of a drive failure. Different RAID levels are identified by how data is stored on the drives, and each level offers different benefits.

1. RAID 0 2) RAID 1 3) RAID 1+0 4) RAID 5

**Section 4: Practical Application**

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

**Ans:-** Here are the steps to replace a CPU fan in a desktop computer:

Turn off and unplug the computer

1)Open the case and locate the fan

2)Remove the fan

3)Clean the processor

4)Install the new fan

5)Apply thermal paste

6)Close the case and test the fan

**Section 5: Essay**

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

**Ans**:- sImproved performance

Regular maintenance can help your computer run smoothly and efficiently, with faster processing times and reduced lag.

Keeping your software up to date and running virus scans can help prevent malware and other security threats.

Regular data backups can help protect your data from loss or corruption in the event of a hardware failure.

Prevents major issues

Some examples of computer hardware maintenance tasks include:

Cleaning and dusting the computer case, keyboard, and vents

Updating your operating system, firmware, and drivers

Scanning for malware

Defragmenting your hard drive

Testing your hardware

Checking your cables

Replacing and upgrading components

Troubleshooting and repairing issues