**Assignment 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?**

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

Explanation

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

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

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

Ans- a) Multimeter

1. **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**

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

**Ans- t**rue

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

**Ans-** False

1. **It is safe to remove a USB flash drive from a computer without ejecting it first.**

**Ans-** false

**Section 3: Short Answer**

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

**Ans-** the new graphic card installing 1 step is Power Off and Unplug the Computer, 2 step Open the Computer Case, 3 step Remove old Graphics Card and install new graphic card, 4 step Close the Case and Reconnect Everything, 5 step Power On and Install Drivers and test CPU

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

Ans- RAID is (Redundant Array of Independent Disks) a storage technology that combines multiple hard drives to improve performance ext.

For example - RAID 0 (Striping), RAID 1 (Mirroring), RAID 5, RAID 6, RAID 10 (1+0)

**Section 4: Practical Application**

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

**Ans-** replace cpu fan in step 1 Power Off and Unplug the Computer and Open the Case, step 2 Disconnect the Old Fan and Remove CPU Fan and Heatsink, step 3 Clean the Old Thermal Paste and Apply New Thermal Paste, step 4 Install the New Fan/Cooler, step 5 Close the Case and Reconnect and check

**Section 5: Essay**

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

**Ans-** Cleaning Dust blocks airflow and causes overheating, Replacing Thermal Paste , BIOS, firmware, and hardware drivers updating, Replace old fan, Regular backups, Check cables, power connectors, and internal plugs ext.