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* **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?**
* Ensure the computer is plugged in to prevent electrostatic discharge.
* Wear an anti-static wrist strap to prevent damage from electrostatic Discharge.
* Work on carpeted surfaces to prevent slipping.
* Use magnetic tools to handle components more easily.
* **Answer:- B-**  Wear an anti- static wrist strap to prevent damage from electrostatic Discharge
* 2. **What is the purpose of thermal paste during CPU installation?**
* To insulate the CPU from heat.
* To provide mechanical support for the CPU.
* To improve thermal conductivity between the CPU and the heat sink.
* To prevent the CPU from overheating.
* **Answer:-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)?**
* Multimeter
* Screwdriver
* Pliers
* Hex key
* **Answer:- multimeter**
* 4. **Which component is responsible for storing BIOS settings, such as date And time, even when the computer is powered off?**
* CMOS battery
* CPU
* RAM
* Hard drive
* **Answer:- CMOS Battery**
* **Section 2: True or False**
* True or False: When installing a new hard drive, it is essential to format before use.
* **Answer:- True**
* True or False: A POST (Power-On Self-Test) error indicates a problem With the CPU.
* **Answer:- false**
* True or False: It is safe to remove a USB flash drive from a computer Without ejecting it first.
* **Answer:- false**
* **Section :3 short answer**
* 8. **Describe the steps involved in installing a new graphics card in a Desktop computer.**
* **Answer:-** To install a new graphics card in a desktop computer, you can follow these steps:
* Remove the old graphics card
* Install the new graphics card
* Connect cables and power
* Close the case and restart
* Update drivers
* **What is RAID, and what are some common RAID configurations?**
* **Answer:-** RAID – or Redundant Array of Independent Disks – is a type of storage that writes data across multiple drives within the same system. Different configurations are expressed as numbers, such as RAID 0, RAID 1, or RAID 5.
* **RAID 0**
* This configuration is cost-efficient and splits data into blocks across multiple disks. It’s best for applications that require high-speed data streaming. However, it has no redundancy or fault tolerance.
* **RAID 1**
* This configuration mirrors data across two or more disks. It’s reliable due to its redundancy and is best for applications that require high data integrity.
* **RAID 5**
* This configuration uses both striping and parity. It’s fast, reliable, and secure.
* **Section:4 practical application**
* **Demonstrate how to replace a CPU fan in a desktop computer.**
* **Answer:-** To replace a CPU fan in a desktop computer, you can follow these steps:
* Turn off and unplug the computer
* Open the computer case
* Locate the CPU fan
* Remove the fan and clean the processor
* Install the new fan and apply thermal paste
* Close the case and test the fan
* **Section:5 Essay**
* **Discuss the importance of regular maintenance for computer hardware And provide examples of maintenance tasks.**
* **Answer:-** Regular maintenance for computer hardware is important because it helps to:
* **Some examples of maintenance tasks include:**
* **Cleaning**
* Dust, dirt, and debris can accumulate inside your computer and cause it to overheat. Cleaning internal components, such as fans and heat sinks, can help prevent this.
* **Updating**
* Updating drivers and operating systems can help ensure they are compatible and can improve performance.
* **Backing up data**
* Backing up your data at least once a week can help ensure your files are securely stored in the event of a hard drive failure or system crash.
* **Running disk cleanup**
* Running a disk cleanup can help free up disk space on your hard drive by deleting temporary files, extra language files, and large attachments.