

Assignment 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?

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?

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)?

Answer: a) Multimeter

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

Answer: a) CMOS battery

Section 2: True or False

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

Answer: True

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

Answer: False

7. 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:

- Power off the computer and unplug it.
- Open the computer case.
- Locate the PCI-E slot on the motherboard.
- Insert the graphics card gently into the slot.
- Secure it with a screw.
- Connect power cables if required.
- Close the case, power on the system, and install the drivers.

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

Answer: RAID (Redundant Array of Independent Disks) combines multiple drives for redundancy or performance.

Common configurations:

- RAID 0: Striping for speed.

- RAID 1: Mirroring for data protection.
- RAID 5: Striping with parity.
- RAID 10: Combination of RAID 1 and RAID 0.

Section 4: Practical Application

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

Answer:

- Turn off and unplug the computer.
- Open the case and remove the old fan's power connector.
- Unscrew or unclip the old fan.
- Clean the CPU and apply new thermal paste.
- Install the new fan properly.
- Connect it to the motherboard.
- 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.

Answer:

Regular maintenance improves performance and extends the lifespan of components. It prevents failures and ensures smooth operation.

Examples include:

- Cleaning dust from fans and vents.
- Checking cables and connections.
- Updating drivers and BIOS.
- Replacing thermal paste.
- Monitoring hard drive health.
- Performing regular backups.