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

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

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

SHORT ANSWER

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

Ans: 1) Gather tools and materials

2) the work area

3) Turn off the computer

4) Open the computer case

5) Locate the PCIe slot

6) Remove the old graphic card

7) Install the new graphics card

8) Secure the graphic card

9) Close the computer case

10) Connect monitors and cables

11) Power on the computer

12) Install drivers

13) in last test the graphics card

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

Ans: RAID stands for **Redundant Array of Independent Disks**.

**Common RAID Configurations:**

1. RAID 0 (Striping)
2. RAID 1 (Mirroring)
3. RAID 5 (Striping with Parity)
4. RAID 6 (Striping with Double Parity)
5. RAID 10 (1+0 or Mirroring + Striping)
6. JBOD (Just a Bunch of Disks)

PRACTICAL APPLICATION

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

Ans: 1) Power off and unplug the computer

2) Open Cabinet

3) Wear anti-static wrist strap

4) Locate the CPU fan

5) Remove the fan connecter

6) Apply thermal paste

7) Install the new fan

8) Reconnect the fan connector

9) Close the Cabinet

10) Power on the Computer

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

Ans: Importance of regular Maintenance: -

1) Prevents Overheating

2) Extends Lifespan

3) Improves Performance

4) Enhances Security

5) Data Integrity and Backup

Examples of Maintenance Tasks: -

1. Regular Cleaning

2) Checking and Managing Cables

3) Software Updates

4) Running Antivirus and Malware Scans

5) Disk Cleanup and Defragmentation

6) Monitor System Performance

7) Backup Data Regularly

8) Check Battery Health

9) Inspect Hardware for Issues

10) Update BIOS/Firmware