

Name:- SUMIT PATEL

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?
 - 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.

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.

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

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

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

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

ANS: False

Section 3: Short Answer

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

ANS:

- Steps to install a new graphics card in a desktop computer

- 1) Power off and unplug the computer.
- 2) Open the case using a screwdriver.
- 3) Remove the old GPU
- 4) Insert the new graphics card into the PCIe slot.
- 5) Secure the card with screws to the case.
- 6) Close the case and plug the computer back in.
- 7) Boot the PC and install the latest graphics drivers.

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

ANS:

RAID stands for Redundant Array of Independent (or Inexpensive) Disks.

it's a way to combine multiple hard drives into one system to improve. Speed and safety or both.

Common RAID Configurations:

- RAID 0 – Speed Boost (ONLY SPEED)

- RAID 1 – Data Mirror (Data backup)
- RAID 5 – Speed + Safety (Balanced use)
- RAID 10 (or 1+0) – Fast & Safe (Performance + safety)

Section 4: Practical Application:

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

ANS:

1. Turn off the computer and unplug it
2. Open the case
3. Unplug the old fan
4. Remove the old fan
5. Clean off the old thermal paste
6. Put on new thermal paste
7. Install the new fan
8. Plug the fan in
9. Close up the case
10. Turn it on and check.

Section 5: Essay

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

ANS:

Why Taking Care of Your Computer is Important:

- your computer needs **regular care** to keep working well.
If you don't take care of it, it can become slow, hot, or even stop working.

Examples of maintenance tasks:

1. Clean the dust – Use a soft cloth or air to blow out dust. Dust makes your computer hot.
2. Update the system – Keep Windows and software updated.
3. Run antivirus – This protects your computer from harmful files.
4. Delete junk – It makes the computer faster.
5. Check cables – Make sure nothing is loose or broken.
6. Backup files – Save your important files on a USB or cloud, just in case.

