# Assignment module 2 :

# Installation and Maintenance of Hardware

# 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.

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

## 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:- step 1 - Power down & unplug your PC

step 2 - Remove your Old GPU

step 3 - Install the New Graphics Card

step 4 - Connect Power & Reassemble

step 5 - Power On & Install Drivers

## Section 4: Practical Application

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

ans :-step 1 - power off :-shutdown your computer and unplug the power cord and hold the power button for few seconds

to discharge any electricity.

step 2 - Open the Case :- Remove the side panel to access the CPU area.

step 3 - Locate the CPU fan :- The CPU fan is usually located on top of the CPU which is covered by heatsink.

step 4 - Disconnect the fan :- Disconnect the fan's power cable from the motherboard.

:- It will be a small 3 or 4-pin connector labeled "CPU FAN".

step 5 - Remove the old fan:- Carefully detach the fan from the heatsink.

step 6 - Clean the CPU :- Use a lint-free cloth and isopropyl alcoholto remove any old

thermal paste from the top of the CPU and the bottom of the heatsink.

step-7 - Apply new thermal paste :- apply the small size of new thermal to the center of CPU.

step 8 - install the new fan cooler :- Secure the new fan to the heatsink, ensuring it's properly aligned and making good contact.

step 9 - Reconnect the fan :- Connect the new fan's power cable to the CPU fan on the motherboard.

step 10 - Close the case :- Close the computer case,

and again power on your computer,

and check the new fan is working correctly,

you can see the CPU tempraturen in the BIOS.

## Section 5: Essay

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

ans :- Regular maintenance of computer hardware is Help for optimal performance, longevity, and security.

- It helps some issues like overheating, data loss, and system slowdowns, ultimately saving you time, money, and frustration.

:- Importance of Regular Maintenance:-

1.bettar Performance

2.Reduce Overheating

3.Improving Lifespan

4.Data Security

5.Money Savings

6.Improved Security

\*Bettar Performance :- Dust accumulation, outdated software can significantly impact a computer's speed and responsiveness.

- Reqular maintenance help for system running smothly and perfactly.

\*Reduce Overheating :- With dust fans and heatsink are not working properly so its leading overheating and hardware damage.

- cleaning this components reqularly it s help for maintain operating temperature.

\*Improving Lifespan :- regular maintenance can \*Data Security :- Use reqular antivirus scans and backups are protecting for valuable data.

- data is very important in our computer device so first of all we cares and protect our data from this

reqular maintainance.

\*Money Savings :- if we found minor issues in our computer device or hardware components so its repair very costly.

- Regular maintenance is a cost-effective way to protect your money.

\*Improved Security :- update your software updates and running antivirus scans helps protect your system from security

threats.

\* Examples of Maintenance Tasks:- Hardware Cleaning,

- Software Updates,

- Antivirus Scans,

- Disk Cleanup,

- Data Backups,

- Checking for Driver Updates,

- Physical cleaning.