

## Assignment

### Module -1: Understanding of Hardware and Its Components

#### Section 1: MCQs

1. Which of the following is NOT a component of the CPU ?  
☐ ALU & CU
2. What is the function of RAM in a computer ?  
☐ RAM is a store the data I need to retrieve quickly
3. Which of the following is a primary storage device?  
☐ HDD & SSD
4. What is the purpose of a GPU?  
☐ A GPU (Graphics Processing Unit) handles graphics rendering tasks, improving video quality and gaming performance.

#### Section 2: True or False

5. True or False: The motherboard is the main circuit board of a computer where other components are attached.  
☐ True
6. True or False: A UPS (Uninterruptible Power Supply) is a hardware device that provides emergency power to a load when the input power source fails.  
☐ True
7. True or False: An expansion card is a circuit board that enhances the functionality of a component.  
☐ True

#### Section 3: Short Answer

8. Explain the difference between HDD and SSD
1. } HDD (Hard Disk Drive): Uses spinning disks and a moving read/write head. It is slower but cheaper and offers more storage capacity.
2. } SSD (Solid State Drive): Uses flash memory with no moving parts, making it much faster, more reliable, and energy-efficient.
9. Describe the function of BIOS in a computer system.  
☐ BIOS ( Basic input/ output system ) They loading the operating system upon start up and responsible for initializing hardware components .
10. List and briefly explain three input devices commonly used with computers.  
☐ Keyboard: Used for text input and command execution.  
☐ Mouse: A pointing device for navigating the computer interface.  
☐ Scanner: Converts physical documents into digital formats.

#### Section 4: Practical Application

11. Identify and label the following components on a diagram of a motherboard  
☐ CPU: Central Processing Unit, located in the processor socket.  
☐ RAM slot : Memry slots where RAM modules are installed.  
☐ SATA connectors: Used for connecting storage devices like HDDs and SSDs.  
☐ PCIe slot : Expansion slotm for graphic and other cards
12. Demonstrate how to install a RAM module into a computer.  
☐ Open the computer and locate the RAM slots.  
☐ Aligan the RAM module and properly seat a slot  
☐ Push the down into firm and click the place

#### Section 5: Essay

13. Discuss the importance of proper cooling mechanisms in a computer system. Include examples of cooling methods and their effectiveness.

☐ Proper cooling in a computer system is essential to ensure optimal performance

Types of cooling machine

☐ Air cooling

☐ Liquid cooling

☐ Phase change cooling

☐ Immersion colling

☐ Passive cooling

14. Explain the concept of bus width and its significance in computer architecture.

☐ indicates how much data can be transferred during each memory read/write operation improving system efficiency & transmitted at once between the CPU and Memory