**•Assignments**

**•Understanding hardware and its components.**

[Section 1: Multiple Choice]

1. Which of the following is NOT a component of the CPU?

1. ALU

2. RAM

3. CU

4. 1 and 3 both

**= (Ans. 4. ALU & CU)**

2. What is the function of RAM in a computer?

**= (Ans. RAM is a computer's short-term memory, where the data that the processor is currently using is stored.)**

3. Which of the following is a primary storage device?

1. HDD

2. SSD

3. SD card

4. 1 and 2 both

**=(Ans. 4. HDD & SSD card)**

4. What is the purpose of a GPU?

[Section 2: True or False]

5. True or False: The motherboard is the main circuit board of a computer

where other components are attached.

**= (Ans. 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.

**= (Ans. TRUE)**

7. True or False: An expansion card is a circuit board that enhances the

functionality of a component.

**= (Ans. TRUE)**

[ Section 3: Short Answer]

8. Explain the difference between HDD and SSD.

**= (Ans. SSDs store data on electronic circuits and HDDs store data on mechanically moving, magnetic platters.)**

9. Describe the function of BIOS in a computer system.

**= (Ans. BIOS identifies, configures, tests and connects computer hardware to the OS immediately after a computer is turned on. The combination of these steps is called the boot process. These tasks are each carried out by BIOS' four main functions: Power-on self-test (POST).)**

10. List and briefly explain three input devices commonly used with

computers.

**= (Ans. 1. Keyboard: keyboard is used for input text data in computer.**

**2. Mouse: after clicking mouse any button for showing something or take any command we chose this as input device.**

**3. Scanner device: some types of data are is in barcode and scanner type, scanner device collect this data and after processing provided correct data in our language.)**

[Section 4: Practical Application]

11. Identify and label the following components on a diagram of a

motherboard:

CPU

RAM slots

SATA connectors

PCI-E slot

**= ( Ans. Done in Lab.)**

12. Demonstrate how to install a RAM module into a computer.

**= ( Ans. Done in Lab.)**

[Section 5: Essay]

13. Discuss the importance of proper cooling mechanisms in a computer

system. Include examples of cooling methods and their effectiveness.

**=(Ans.**

**Computer cooling is required to remove the waste heat produced by computer components, to keep components within permissible operating temperature limits. Components that are susceptible to temporary malfunction or permanent failure if overheated include integrated circuits such as central processing units (CPUs), chipsets, graphics cards, hard disk drives, and solid state drives.**

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

**=(Ans.**

**•A group of Wire which carries.**

**>the signal from one components to other components on the motherboard is called busses.**

**•Busses inter connect.**

**>the motherboard components together to make the communication with each other.**