**Assignment**

**Module -1: Understanding of hardware and its**

**Components**

**Section 1: Multiple Choic**

**01. Which of the following is NOT a component of the CPU?**

**Ans**-. RAM

**02. What is the function of RAM in a computer?**

**Ans-**RAM is a random access memory, volatile memory, primary data stored devise, small memory chips that from a memory module, hard-drive to open data memory

**03. Which of the following is a primary storage devices**

**Ans**-1 and 2 both

**04. What is the purpose of a GPU?**

**Ans-**  The main purpose of gpu is rendering graphics ,accelerating computing tasks, video playback and encoding ext.

**Section 2: True or False**

**05. The motherboard is the main circuit board of a computer**

**where other components are attached.**

**Ans-**True

**06. A UPS (Uninterruptible Power Supply) is a hardware device that provides emergency power to a load when the input power**

**source fails.**

**Ans-**True

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

**functionality of a component.**

**Ans-**True

**08.Explain the difference between HDD and SSD.**

|  |  |
| --- | --- |
| **HDD** | **SSD** |
| Slower speed drive. | Faster speed drive. |
| Noisier and vibration Slightly. | **Silent** and No vibration. |
| More pwer ues | Less power ues |
| Larger storeg size | Smaller storeg size |

1. **Describe the function of BIOS in a computer system.**

Ans-Bios in a computer system in loading the operating system ,

Hardware initialization ,bios setup [ex.(f2 **f2**, **del**, or **esc**,f10,f11,f12)],and booting the computer ext.

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

**computers.**

**Ans-** Input device commonly used in computers is mouse , keyboard,

Microphone,these devices allow users to interact with the computer.

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

**motherboard:**

· **CPU - CENTRAL PROCESSING UNIT (SOCKET)**

· **RAM SLOTS - MEMORY SLOTS**

· **SATA-HARD - DISCK CABLE CONNECTORS**

· **PCI-E SLOT - PCI EXPRESS SLOT**

|  |
| --- |
| **[ CPU Socket ]**  **|**  **| [ RAM Slot ] [ RAM Slot ] |**  **|**  **| PCI-E Slot |**  **|**  **| [ SATA ] [ SATA ]** |

1. **Demonstrate how to install a RAM module into a computer.**

**Ans-**Turn off the computer and unplug it-open computer case- view the ram slots-prepare and insert ram module-close the case and check ram recognized.

**Section 5: Essay**

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

**Ans-** Computer **overheating,**improves performance, ex.air cooling (fans and heats-inks),**thermal paste,liquid cooling (water cooling),** heat pipes, vapor chambers cooling ext.

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

**architecture.**

**Ans-** There is a tree tips of bus [1.bus width 2.data bus 3.address bus] bus is a set of cables ,bus is a significance data per cycle , faster performance,**supports memory more ext.**