**ASSIGNMENT**

**NAME : HITANSHU PANCHAL**

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

**Section 1: Multiple Choice**

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

**ANS-** RAM

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

**ANS –** RAM STAND FOR RANDOM ACESS MEMORY. RAM IS PRIMARY MEMORY OF COMPUTER THAT STORES DATA. RAM IS VOLATILE MEMORY, WHICH MEANS IT STORES DATA AS LONG AS POWER IS ON

1. **Which of the following is a primary storage device?**

**ANS –** 1 & 2BOTH (SSD&HDD)

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

**ANS-** GPU STANDS FOR GRAPHIC PROCESSING UNIT. GPU RENDERS GRAPHIC LIKE IMAGE, VIDEO ETC.

**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.** : **An expansion card is a circuit board that enhances the functionality of a component.**

**ANS –** TRUE

**Section 3: Short Answer**

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

|  |  |
| --- | --- |
| **HDD** | **SDD** |
| **1.** USES MAGNETIC SPINING DISKS TO READ DATA | USES FALSH MEMORY |
| **2.** HDD IS SLOW | SDD IS FAST |
| **3.** CHEAP | EXPENSIVE |
| **4.** STORES MORE DATA | LESS DATA THAN HDD |

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

**ANS-** BIOS STANDS FOR BASIC INPUT OUTPUT SYSTEM. BIOS IS LCATED ON MOTHERBOARD. BIOS WORKS ON POST ( POWER ON SELF TEST) AND CHECK RAM,CPU,ETC WOKS PROPERLY.

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

**ANS-** THERE ARE THREE TYPES OF INPUT DEVICES ARE AS FOLLOWS :

* **1 KEY BOARD**

KEYBOARD IS USE GIVING COMMANDS IN TEXT AND NUMERIC FORMAT. KEYBOARD INCLUDES ALPHBETSW, NUMBERS AND SPECIAL CHARACTERS.

* **2 MOUSE**

MOUSE IS USE FOR POIONTING, CLICKING DRAGGING. MOUSE HAS TWO BUTTONS LEFT AND RIGHT AND SCROLL WHEEL.

* **3 SCANNER**

SCANNER IS USED TO SCAN PICTURES AND DOUCMENTS.

**Section 5: Essay**

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

**ANS-** PROPER COOLING MECHANISM IS EESENTIAL FOR PERFECT PERFORMANCE. IMPORTANCE ARE AS FOLLOWS

* **PREVENTS EXCESSIVE HEATING ON MOTHERBOARD**
* **COOLING IMPROVES PERFORMANCE OF CPU AND GPU**
* **INCRESES LIFE OF HARDWARE COMPONENTS**

HERE ARE SOME EXAMPLES OF COOLING METHODS-

1. AIR FAN COOLING
2. LIQUID COOLING

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

**ANS-** BUS WIDTH IS NUMBER OF BITS COMPUTER CAN MOVE AT ONE TIME.

**THERE ARE DIFFERENT TYPES OF BUSES :**

* DATA BUS – CARRIES DATA
* ADDRESS BUS- CARRIES MEMORY
* CONTROL BUS – CARRIES CONTROL SIGNALS
* **WHY BUS WIDTH IS IMPORTANT?**
* FASTER DATA MOVEMENT
* BETTER PERFORMANCE
* MORE MEMORY ACCESS