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

* **1. Which of the following is NOT a component of the CPU?**
  + **Answer:** RAM
* **2. What is the function of RAM in a computer?**
  + **Answer:** The function of RAM (Random Access Memory) is to store data and program instructions that the CPU is currently using. It's a type of temporary, volatile memory, meaning its contents are erased when the computer is turned off.
* **3. Which of the following is a primary storage device?**
  + **Answer:** None of the options listed (HDD, SSD, SD card) are considered primary storage in the same sense as RAM, which is directly accessed by the CPU. The question is flawed based on the provided options. However, if we must choose from the given list, a solid-state drive (SSD) is a form of permanent storage that is faster than a hard disk drive (HDD) and is sometimes colloquially referred to as primary storage.
* **4. What is the purpose of a GPU?**
  + **Answer:** The purpose of a GPU (Graphics Processing Unit) is to handle all the graphics and image processing for a computer. It's especially important for rendering images, animations, and video, which is why it's a key component for gaming and video editing.
* **5. True or False: The motherboard is the main circuit board of a computer where other components are attached.**
  + **Answer:** 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.**
  + **Answer:** True.
* **7. True or False: An expansion card is a circuit board that enhances the functionality of a component.**
  + **Answer:** True.
* **8. Explain the difference between HDD and SSD.**
  + **Answer:** An HDD (Hard Disk Drive) is a traditional storage device that uses spinning platters and a mechanical arm to read and write data. An SSD (Solid-State Drive) uses flash memory to store data and has no moving parts. The main differences are that SSDs are much faster, more durable, and use less power than HDDs.
* **9. Describe the function of BIOS in a computer system.**
  + **Answer:** The function of BIOS (Basic Input/Output System) is to perform a Power-On Self-Test (POST) when a computer is first turned on. It initializes and tests the hardware components and then loads the operating system from a storage device.
* **10. List and briefly explain three input devices commonly used with computers.**
  + **Answer:** Three common input devices are:
    1. **Keyboard:** Used to input text, numbers, and commands into the computer.
    2. **Mouse:** Used to control the cursor on the screen and interact with graphical elements.
    3. **Microphone:** Used to capture audio, allowing for voice commands, recording, and communication.

**Module 2: Installation and Maintenance of Hardware**

* **1. Which of the following precautions should be taken before working on computer hardware?**
  + **Answer:** Wear an anti-static wrist strap to prevent damage from electrostatic discharge.
* **2. What is the purpose of thermal paste during CPU installation?**
  + **Answer:** 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)?**
  + **Answer:** A multimeter.
* **4. Which component is responsible for storing BIOS settings, such as date and time, even when the computer is powered off?**
  + **Answer:** CMOS battery.
* **5. True or False: When installing a new hard drive, it is essential to format it before use.**
  + **Answer:** True.
* **6. True or False: A POST (Power-On Self-Test) error indicates a problem with the CPU.**
  + **Answer:** False. A POST error can indicate a problem with many different hardware components, not just the CPU.
* **7. True or False: It is safe to remove a USB flash drive from a computer without ejecting it first.**
  + **Answer:** False.
* **8. Describe the steps involved in installing a new graphics card in a desktop computer.**
  + **Answer:** To install a new graphics card: first, turn off and unplug the computer. Open the computer case and locate an available PCI-E slot on the motherboard. Remove the metal bracket from the back of the case for the new card. Insert the graphics card into the slot and push down firmly until it clicks. Secure the card with a screw. Finally, connect any necessary power cables from the power supply unit to the card, and close the case.
* **9. What is RAID, and what are some common RAID configurations?**
  + **Answer:** RAID (Redundant Array of Independent Disks) is a technology that combines multiple hard drives into a single logical unit to improve performance or provide data redundancy. Common RAID configurations include RAID 0 (striping for performance), RAID 1 (mirroring for redundancy), and RAID 5 (striping with parity for both performance and redundancy).