**CPU & Memory Tutorial 2**

**SECTION A**

1. What exactly is **BIOS** and what does the acronym stand for?
2. When a Computer begins to slow down, what component is most likely overtasked?
   1. RAM
   2. ROM
   3. Flash Memory

(Briefly explain your answer)

1. What is a **Clock Cycle?**
   1. The accuracy of the computer’s internal clock compared to an external one
   2. The CPU’s processing speed
   3. The amount of time it takes a computer to recover something from memory after booting up
2. What is a memory cache?
   1. The amount of memory your computer has on hand for any particular task
   2. An outdated memory storage device
   3. A temporary memory storage device that keeps certain data available for quick reference
3. What is **Bus Width?**
   1. The size of the vehicle use to ship the computer
   2. The number of pins in a computer port
   3. The number of bits that can be sent to a CPU simultaneously
4. Which kind of computer memory is the first to activate when you turn on your computer?
   1. ROM
   2. BIOS
   3. RAM

(Briefly explain the function of the selected device)

1. The following are special purpose Registers **EXCEPT?**
   1. Memory Address Register (MAR)
   2. Memory Data Register (MDR)
   3. Instruction Register (IR)
   4. Memory Buffer Register
2. The following are all Non-Volatile memory types **EXCEPT**?
   1. BIOS
   2. EEPROM
   3. Cache
   4. ROM
   5. RAM
   6. Flash Memory

**Section B**

1. Identify **THREE (3)** current CPU Architecture Designs.
2. Identify **FIVE (5)** CPU Manufacturers
   1. THREE (3) for Laptop/Desktop
   2. One (1) for Smartphones
   3. One (1) for Servers
3. **Identify** and **Explain** **THREE (3)** CPU Features and Enhancements.
4. Draw a well labeled diagram showing the relationship between CPU, Cache and Primary Memory.
5. Identify and Explain **TWO (2)** ways to configure Multiprocessor Systems.
6. Think about the **Modern CPU Block Diagram**.