

## Exercise for Slot2 - CSI106

### **Exercise 1:** Fill in the Blanks

"A computer consists of three main components: the CPU, main memory, and the input/output subsystem. Within the CPU, there are three main parts: the \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_. Which component performs arithmetic operations? \_\_\_\_\_."

### **Exercise 2:** Classify Instruction Types

Classify the following instructions into two main types: CISC or RISC.

1. ADD
2. MOV
3. MUL
4. DIV
5. XOR

### **Exercise 3:** Calculate Necessary Bits

A computer has 256 MB of memory. Each word in this computer is four bytes. Calculate the number of bits needed to address a word in memory.

### **Exercise 4:** Compare Computer Architectures

Compare CISC and RISC architectures. Highlight the main differences between them and the advantages/disadvantages of each architecture.