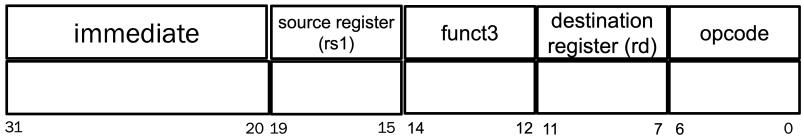
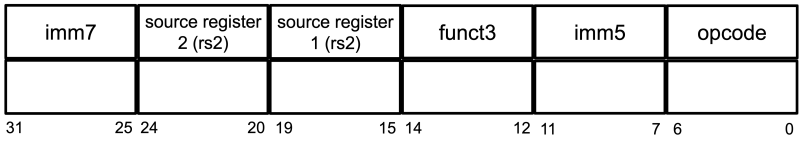
COMP311 In Class Practice 11/11/25 Name: _____

Question 1: Memory Instruction Translation Translate the following instructions into machine code and use the templates.

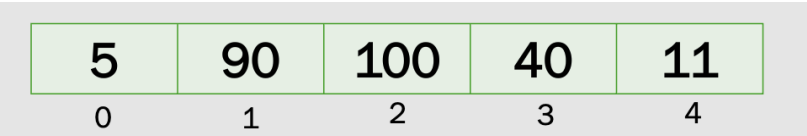
1.1. `x5, 0x20(x7)`



1.2. `sw20, -12(x9)`



Question 2: Memory Accesses Given the integer array whose base address is `0x00004000` answer the following questions. The size of an int is 4 bytes. Assume x10 = `0x00004000`.



2.1. What is the value of x11 after executing the instruction `lw x11 0(x10)` ?

2.2. What is the value of x12 after executing the instruction `lw x12, 4(x10)` ?

2.3. What is the value of x12 after executing the instructions `addi x10, x10, 4`
`lw x12, 8(x10)` ?

2.4. What are the contents of the array after executing the instruction `sw x7, 12(x10)` ?