Lab 3

1-Write and assemble a program to load values into each of registers R20 – R24 and then push each of these registers onto the stack. Single step the program and examine the stack and the SP register after the execution of each instruction.

2- Write and assemble a program to:

a) Set SP = $1FF,
b) Put a different value in each of RAM locations $1FF, $200, $201, $202, $203, and $204,
c) POP each stack location into registers R20 – R24.
d) Use the simulator to single-step and examine the registers, the stack, and the stack pointer.

3- Upon reset, what is the value in the SP register?

4- Upon pushing data onto the stack, the SP register is __ (decremented, incremented).

5- Upon popping data from the stack, the SP register is __ (decremented, incremented).