**Test Case 1**

main:

addi $s0, $zero, 1000

addi $s1, $zero, 1024

addi $t0, $zero, 1

addi $t1, $zero, 2

sw $t0, 0($s0)

sw $t1, 0($s1)

lw $t2, 0($s0)

lw $t3, 0($s1)

add $t3, $t3, $t2

addi $s2, $zero, 1028

sw $t3, 0($s2)

exit:

**Test Case 2**

main:

addi $t0, $zero, 1

addi $t1, $zero, 2

sw $t0, 1000

sw $t1, 1024

lw $t2, 1000

lw $t3, 1024

add $t3, $t3, $t2

sw $t3, 1028

exit:

**Test Case 3 (given in non-blocking part of minor exam test case pdf, given memory access error)**

lw $t0, 0($s0)

addi $t1, $t1,1

add $t0, $t0, $t1

**Test Case 4 (lw followed by multiple non-blocking instructions)**

lw $s0, 1000

addi $t1, $zero, 1

addi $t2, $zero, 1

addi $t3, $zero, 1

addi $t4, $zero, 1

addi $t5, $zero, 1

addi $t6, $zero, 1

**Test Case 5 (sw/lw followed by multiple addi (non-blocking) and then a lw in the end)**

addi $t0, $zero, 70

sw $t0, 1000

addi $t0, $zero, 5

addi $t2, $zero, 5

addi $t3, $zero, 10

addi $t4, $zero, 20

lw $t0, 1000

sw $t0, 1024

addi $t1, $zero, 4

addi $t2, $zero, 6

addi $t3, $zero, 24

addi $t4, $zero, 36

addi $t1, $zero, 8

addi $t2, $zero, 516

addi $t3, $zero, 124

addi $t4, $zero, 106

addi $t1, $zero, 108

lw $t5, 1024

**Test Case 6 (checking handling of negative values in memory)**

addi $t0, $zero, -500

sw $t0, 1000

add $t1, $t0, $zero

add $t2, $t1, $t0

lw $t3, 1000

add $t4, $t3, $t2

**Test Case 7 (effect of blocking instructions after lw)**

addi $t0, $zero, -279

addi $t1, $zero, 33

add $t0, $t0, $t1

sw $t0, 4000

sw $t1, 1200

addi $t1, $zero, 1

addi $t1, $zero, 1

addi $t1, $zero, 1

addi $t1, $zero, 1

addi $t1, $zero, 1

addi $t1, $zero, 1

addi $t1, $zero, 1

addi $t1, $zero, 1

addi $t1, $zero, 1

addi $t1, $zero, 1

lw $t4, 4000

addi $t1, $zero, 1

addi $t1, $zero, 1

addi $t1, $zero, 1

add $t6, $t4, $t0

sw $t6, 8000

exit: