Daniel Martinez

CS 231 (40973)

Class Time: M,W,F 1:30 – 2:20

Prof. Sahar Mosleh

CODE:

Loop address(0x4CB23)

Loop:

beq $t1, $t2, done

lw $s1, 0(($t0)

add $s0, $s1, $s0

addi $t1, $t1, 1

j Loop

done:

beq $t1, $t2, done

| op (4) | rs (9) | rt (10) | Immediate (4) |

6 bits 5 bits 5 bits 16 bits

(0001 00) (01 001) (0 1010) (0000 0000 0000 0100)

ANSWER:

(0001 0001 0010 1010 0000 0000 0000 0100)

lw $s1, 0($t0)

| op (35) | rs (8) | rt (17) | Immediate (0) |

6 bits 5 bits 5 bits 16 bits

(1000 11) (01 000) (1 0001) (0000 0000 0000 0000)

ANSWER:

(1000 1101 0001 0001 0000 0000 0000 0000)

add $s0, $s1, $s0

| op (0) | rs (17) | rt (16) | rd (16) | shamt (0) | func (32) |

6 bits 5 bits 5 bits 5 bits 5 bits 6 bits

(0000 00) (10 001) (1 0000) (1000 0) (000 00) (10 0000)

ANSWER:

(0000 0010 0011 0000 1000 0000 0010 0000)

addi $t1, $t1, 1

| op (8) | rs (9) | rt (9) | Immediate (1) |

6 bits 5 bits 5 bits 16 bits

(0010 00) (01 001) (0 1001) (0000 0000 0000 0001)

ANSWER:

(0010 0001 0010 1001 0000 0000 0000 0001)

j Loop

| op (2) | Address (0x4CB23 🡪 4,12,11,2,3) |

6 bits 26 bits

(0000 10) (00 0000 0100 1100 1011 0010 0011)

ANSWER:

(0000 1000 0000 0100 1100 1011 0010 0011)