1. For the following code segment write the machine language representation of each instruction in binary. The instruction codes are add->32,beq->4,addi->8,

lw->35,j->2. Asume that Loop has the address of Ox4CB23

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) (source) (target) (immediate)

000100 01001 01010 0000000000000100

0001 0001 0010 1010 0000 0000 0000 0100

0x112A0004

lw $s1, 0(($t0)

(op) (source) (target) (immediate)

100011 01000 10001 0000000000000000

1000 1101 0001 0001 0000 0000 0000 0000

0x8D110000

add $s0, $s1, $s0

(op) (s) (t) (d) (shmt) (function)

000000 10001 10000 10000 00000 100000

0000 0010 0011 0000 1000 0000 0010 0000

0x02308020

addi $t1, $t1, 1

(op) (s) (t) (immediate)

001000 01001 01001 0000000000000001

0010 0001 0010 1001 0000 0000 0000 0001

0x21290001

j Loop

(op) (address)

000010 00 0000 0100 1100 1011 0010 0011

0000 1000 0000 0100 1100 1011 0010 0011

0x0804CB23