Homework 5

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1 Problem 1

1.1 1(h)

1.1.1 Opcode = 100000

1.1.2 rs = 110011

1.1.3 rt = 000000

1.1.4 offset = 0000 0000 0101 0000

1.1.5 Final = 100000 110011 000000 0000 0000 0101 0000

1.2 1(i)

1.2.1 opcode = 000100

1.2.2 rs = 100011

1.2.3 rt = 010000

1.2.4 funct = 000000

1.2.5 shamnt = 000000

2 Prob 2

2.1 2(h)

2.1.1 1010 0101 0101 1000 0011 1011 1100 1001

2.1.2 opcode = 101001 = sb

2.1.3 rs = 010101

2.1.4 rt = 100000

2.1.5 imm = 1011 1100 1001

2.1.6 This is sb $s0 0($a0)

2.2 2(i)

2.2.1 0000 0010 0000 1011 0000 1000 0010 0011

2.2.2 opcode = 0

2.2.3 rs = 100000

2.2.4 rt = 101100

2.2.5 funct = 100011

2.2.6 This is add $t4 $t1 $s0

3

3 Prob 3

3.1 3(e)

3.1.1 Intruction 2 lw depends on $t0 set in instruction 1

```
int acc = 0;
int val;
do {
val = getAValue();
acc += val;
} while(val != 0)
}
```