Name: **Id#**

ICS 233, Term 141

Computer Architecture & Assembly Language

Quiz# 4

Date: Tuesday, Nov. 18, 2014

Q1. Determine the content of register $v0 after executing the following code:

```
        li $a0, 0x12340000
        jal MyProc


MyProc:
        or $v0, $0 ,$0
        ori $t0, $0, 8
loop:
        rol $a0, $a0, 4
        andi $t1, $a0, 0xf
        add $v0, $v0, $t1
        addiu $t0, $t0, -1
        bne $t0, $0, loop
        jr $ra
```

Q2. Assuming that functions F and G receive two integer arguments in $a0 and $a1 and return their results in $v0, implement the function F given below saving needed registers on the stack. Save changed registers according to the assumed programming convention:

```
int F(int a, int b) {
      return  G(2a,b)+G(a,2b);
}
```