

**Name:**

**Id#**

**COE 205, Term 091**  
**Computer Organization & Assembly Programming**  
**Quiz# 4**

Date: Monday, Dec. 28, 2009

**Q1.** Fill the blank in each of the following:

1. Assume that ESP=00000100H, EAX=12345678H. After executing the instruction PUSH AX, the content of ESP=\_\_\_\_\_ and EAX=\_\_\_\_\_.

2. Assume that ESP=00000100H, EAX=12345678H and EBX=90ABCDEFH. After executing the following sequence of instructions, the content of ESP=\_\_\_\_\_ and EAX=\_\_\_\_\_.

PUSH AX  
PUSH BX  
POP EAX

3. Assuming that ESP=00000100H, after executing the instruction RET 8, the content of ESP=\_\_\_\_\_.

4. Assuming that ESP=00000100H, after executing the instruction Call Quiz4, the content of ESP=\_\_\_\_\_.

**Q2.** Determine what will be displayed by executing the following code:

```
PUSH 1
PUSH 3
PUSH 5
CALL TEST
TEST PROC
    MOV EAX, [ESP + 4]
    ADD EAX, [ESP + 8]
    SUB EAX, [ESP + 12]
    CALL WriteInt
    RET 12
TEST ENDP
```

**Q3.** Determine the content of register EBX after executing the following code assuming EAX=5:

```
MyProc:    CMP  EAX,1
           JAE  ELSE
           MOV  EBX,0
           RET
ELSE:      PUSH EAX
           DEC  EAX
           CALL MyProc
           POP  EAX
           ADD  EBX,EAX
           RET
```