Name: KEY **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=100-8=000000FEH and EAX=12345678H.

2. Assume that ESP=00000100H, EAX=12345678H and EBX=90ABCDEFH. After executing the following sequence of instructions, the content of ESP=00000100H and EAX=5678CDEFH.

```
PUSH AX
PUSH BX
POP EAX
```

3. Assuming that ESP=00000100H, after executing the instruction RET 8, the content of ESP=ESP+4+8=10CH.

4. Assuming that ESP=00000100H, after executing the instruction Call Quiz4, the content of ESP=ESP-4=100H-4=000000FCH.

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
```

+7

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
```

EBX=0000000FH.