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:

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

#

# 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

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

#

# 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