

Name:

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COE 205, Term 082
Computer Organization & Assembly Programming
Quiz# 4

Date: Saturday, May 23, 2009

Q1. Given that **TABLE1** and **TABLE2** are defined as:

TABLE1 BYTE 'COE 205'
TABLE2 BYTE 'SWE 205'

Determine the content of register **AX** after executing the following code:

```

                                MOV ECX, lengthof TABLE1
                                MOV EBX, -1
                                XOR AX, AX
AGAIN:                          JECXZ DONE
                                INC EBX
                                MOV DL, TABLE1[EBX]
                                CMP DL, TABLE2[EBX]
                                LOOPNE AGAIN
                                JNE DONE
                                INC AX
                                JMP AGAIN
DONE:
```

Q2. Determine the content of register **EAX** after executing the following code:

```
.686
.MODEL FLAT, STDCALL
.STACK

INCLUDE Irvine32.inc
.DATA
TABLE DWORD 10, 5, 200, -20, 30, 400, -60, 9, -1
.CODE
main PROC

    PUSH offset TABLE    ; pushed as 32-bit
    PUSH lengthof TABLE ; pushed as 32-bit
    CALL MYPROC
    exit
main ENDP
MYPROC:
    MOV EBP, ESP
    PUSH EBX
    PUSH ECX
    MOV ECX, [EBP+4]
    MOV EBX, [EBP+8]
    MOV EAX, [EBX]
    DEC ECX
    ADD EBX, 4
NEXT:
    CMP EAX, [EBX]
    JG SKIP
    MOV EAX, [EBX]
SKIP:
    ADD EBX, 4
    LOOP NEXT
    POP ECX
    POP EBX
    RET 8
END main
```