

Name: Key

Id#

**COE 205, Term 042**  
**Computer Organization & Assembly Programming**  
**Quiz# 4**

Date: Tuesday, April 5, 2005

Q1. Suppose that you have the following initial content of 8086 registers:

AX=FFF0H            BX=0008H            CX=FFF2H            DX=2010H

(i) Determine the content of the destination operand after the execution of each of the following instructions. Indicate the effect on the overflow flag. Use the initial content of the registers for the execution of each instruction.

1. MUL BL

AX = 0780            CF=OF=1

2. IMUL BL

AX =FF80            CF=OF=0

(ii) Write 8086 assembly code to display the decimal content of register AX assuming unsigned numbers.

```
.model small
.stack 100h
.data
num db 0,0,0,0,0, '$'
.code
.startup
    MOV CX, 5
    MOV SI, 4
    MOV BX, 10
Next:  XOR DX, DX
        DIV BX
        ADD DL, '0'
        MOV num[SI], DL
        DEC SI
        Loop Next
    MOV AH, 9
    LEA DX, num
    INT 21H

.exit
end
```