Name: **Id#**

COE 205, Term 001

Computer Organization & Assembly Programming
Quiz# 3

Date: Saturday, November 4

Q1. Give a logic instruction to do each of the following:

a. Clear the even-numbered bits of AX, leaving the other bits unchanged.

b. Set the most and least significant bits of BL, leaving the other bits unchanged.

c. Complement the most significant bit of DX, leaving the other bits unchanged.

d. Replace the value of the word variable WORD1 by its one`s complement.

Q2. Write an 8086 assembly code to implement the following decision structure:

```
IF AX < BX THEN
   Put 0 in DX
ELSE
  IF (BX < CX) OR (BX < DX) THEN
    Put 0 in BX
  ELSE
    Put 0 in CX
  END_IF
END_IF
```

Q3. Suppose that register AX=8BE5h, CX=1821h and the carry flag is 0. Determine the content of register AX and the carry flag after executing the following instruction:

```
ROR AX, CL
```

Q4. Write an 8086 assembly program to multiply the signed content of register AL by 25 based on shift instructions using the smallest number of instructions possible.