

**Name:**

**Id#**

**COE 205, Term 043**  
**Computer Organization & Assembly Programming**  
**Quiz# 4**

Date: Tuesday, July 26, 2005

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

AX=FFDFH      BX=0008H      CX=0020H      DX=0001H

(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 BX
  
2. IMUL AH
  
3. DIV BX
  
4. IDIV CL

(ii) Write the minimum number of instructions to do the following using only logical instructions:

1. Clear bit 0, Set bit 7, and Complement bit 4 of register AL.
  
2. Change the content of AL register into **UPPER** case assuming that it contains either upper or lower case alphabetic characters.
  
3. Store the content of register CX into register AX using only XOR instructions.