Name: **Id#**

COE 205, Term 051
Computer Organization & Assembly Programming
Quiz# 3

Date: Saturday, Oct. 8, 2005

Q1. Suppose that the following data declarations are allocated in the segment given in the DS register with an offset of 0. Show the content of the allocated memory, in **hexadecimal**. Note that the ASCII code of character 'A' is 41H and that of 'a' is 61H. Also, the ASCII code of character '0' is 30H.

```
I       DB      -5, '3AH'
J       DW      3AH
K       EQU     100
L       DW      K+1
        DD      offset I-1
M       DB      5, 3 dup(-1,1)
```

Variable	*Memory Address (Hex)*	*Memory Content Hex)*
	0000	
	0001	
	0002	
	0003	
	0004	
	0005	
	0006	
	0007	
	0008	
	0009	
	000A	
	000B	
	000C	
	000D	
	000E	
	000F	
	0010	
	0011	
	0012	
	0013	
	0014	
	0015	
	0016	

Q2. Determine the output produced by the given program assuming that it receives character 'A' as an input. Note that the ASCII code for the **Line Feed** character is 10 and that for the **Carriage Return** is 13:

```
        .model small
        .stack 100h
        .data
                LF EQU 10
                CR EQU 13
                MSG DB 'Enter a character:$'
                NLINE DB 10, 13, '$'
                CHAR DB ?, LF,'$'
        .code
        .startup

                MOV AH, 9
                MOV DX, offset MSG
                INT 21H
                MOV AH, 1
                INT 21H
                MOV CHAR, AL
                MOV AH, 9
                LEA DX, NLINE
                INT 21H
                MOV CX, 5
                LEA DX, CHAR
Next:           INT 21H
                INC CHAR
                LOOP Next

        .exit
        END
```