COE 205, Term 032
Computer Organization & Assembly Programming
Quiz# 3

Date: Sunday, March 14, 2004

Q1. Suppose that the following data segment is 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.

```
I      DB    -2, 250, 'Ab'
       DW    3AaH, `Cd`
L      EQU   16
J      DD    L-17
       DW    offset I+10
K      DB    2 dup( 3dup(-16,'a'))
```

Variable	Memory Address (Hex)	Memory Content Hex)
I	0000	FE
	0001	FA
	0002	41
	0003	62
	0004	AA
	0005	03
	0006	64
	0007	43
J	0008	FF
	0009	FF
	000A	FF
	000B	FF
	000C	0A
	000D	00
K	000E	F0
	000F	61
	0010	F0
	0011	61
	0012	F0
	0013	61
	0014	F0
	0015	61
	0016	F0
	0017	61
	0018	F0
	0019	61

Q2. Given the following data declarations, determine what is printed by each of the following statements. Note that the ASCII code for the <u>Line Feed</u> character is 10 and that for the <u>Carriage Return</u> is 13:

> **MSG DB "Hello",10, " COE 205 ", 10, " Q2 ", "$"**
> **MSG2 DB "Hello",13, " COE 205 ",13, " Q2 "**
> **MSG3 DB " Quiz#3 ", "$"**

(i)   MOV AH, 2
      MOV DL, MSG2
      INT 21H

(ii)   MOV AH, 2
      MOV DL, MSG2-1
      INT 21H

(iii)   MOV AH, 9
      MOV DX, Offset MSG
      INT 21H

(iv)   MOV AH, 9
      LEA DX, MSG2
      INT 21H