Name: **Id#**

COE 205, Term 101

Computer Organization & Assembly Programming

Quiz#3

Date: Wednesday, Nov. 10, 2010

Q1. Fill the blank in each of the following:

1. Assume that the instruction JMP NEXT is at offset address 000000A1H in the code segment, its size is 2 bytes, and the label NEXT is at offset 00000020H. Then, the address stored in the assembled instruction for the label NEXT is _____.

2. Assuming that EBX=FFFFFFFE and ESI=00000010, the address of the source operand in this instruction MOV AL, [EBX+ESI*2-5] is _____ and its addressing mode is _____.

3. The value of EAX after executing the following instructions will be _____.

```
        mov  eax, 0
        mov  ecx, 6
L1:
        add eax, ecx
        loop L1
```

4. The following instructions **{mov eax, esi; add eax, eax; add eax, ebx; add eax, OFFSET Array}** have the following equivalent single instruction _____.

5. The content of register EAX after executing the instructions below will be _____.

```
.DATA
        ARRAY       DWORD  1, 2, 3, 4
                    DWORD  5, 6, 7 , 8
                    DWORD  9, 10, 11, 12
RS EQU   SIZEOF ARRAY
.CODE
        MOV ESI, 2*RS
        MOV EDI, 3
        MOV EAX, ARRAY[ESI+EDI*TYPE ARRAY]
```

6. The content of Intarray after executing the program below will be: _____.

```
.DATA
Intarray DWORD 10000h, 20000h, 30000h, 40000h, 50000h, 60000h
.CODE
main PROC
    mov esi, 0
    mov edi, LENGTHOF Intarray-1
    mov ecx, LENGTHOF Intarray /2
L1:
    mov eax, Intarray[esi*4]
    xchg eax, Intarray[edi*4]
    mov Intarray[esi*4], eax
    inc esi
    dec edi
    loop L1
    exit
main ENDP
END main
```