(i) Given the following array, using LOOP write some code that should swap the elements in specified order: *1st* with *2nd*, *3rd* with *4th*, *5th* with *6th*, *and 7th* with *8th*.

ARRAY1 SDWORD 12h, 11h, 14h, 13h,16h,15h, 18h, 17h, 19h, 20h

After Swapping: *ARRAY1 = 11h,12h,13h,14h,15h,16h,17h,18h, 19h, 20h*

(ii) Assuming the following array, write some assembly code that should sum up all the EVEN NUMBERS in the array and stores the resulting value in a variable named *result*. You must use base-offset addressing mode for processing array elements.

ARRAY1 WORD 0, 1, 2, 3, 4 99

(iii) Assume the following data segment (starting from 0000 FFFFh) for the following questions.

```
.data
        arr1        SBYTE       3 DUP(-127)
        arr2        WORD        2, 2 DUP(?)
                    DWORD       2 DUP (7FE09A9h),$
```

```
                                main PROC
1.      00FF C10C               MOV AL, [arr1+1]
2.      00FF C10D               MOV ESI, OFFSET[arr2 +6]
3.      00FF C10E               MOV DX, WORD PTR [arr2+7]
4.      00FF C10F               ADD AL, AL
5.      00FF C110               MOV ECX, 0Ch
6.      00FF C111               JMP L1
7.      00FF C112               INC DL
8.      00FF C113               INC CL
9.      00FF C114               L1: SUB CL,DL
10.     00FF C115               MOV AL,DL
11.     00FF C116               L2: ADD AL, 2
12.     00FF C117               LOOP L2
13.     00FF C118               MOV BYTE PTR [ESI],AL
                                main ENDP
```

(iv) What will be the last element in the data segment?

(v) What will be the final value of AL?

(vi) What will be the Status of CF, ZF, and OF after line 4 is executed?

(vii) What is stored in EIP after line 6 is executed?

(viii) Draw Byte by Byte memory (with addresses) for **DWORD array** (unnamed) after execution of above code.