Chap 9 (Week 11)

組別

姓名 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

學號 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Use MOVSD to delete the first element of the following doubleword array. All subsequent array values must be moved one position forward toward the beginning of the array:

**array DWORD 1,1,2,3,4,5,6,7,8,9,10**

.data

array DWORD 1,1,2,3,4,5,6,7,8,9,10

.code

cld

mov ecx, \_\_\_\_\_\_\_\_\_\_\_\_\_ ; set REP counter

mov esi, \_\_\_\_\_\_\_\_\_\_\_\_\_ ; source

mov edi, \_\_\_\_\_\_\_\_\_\_\_\_\_ ; destination

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ; do the move

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ; modify the last element

(1) Write a program that converts each unpacked binary-coded decimal byte belonging to an array (array) into an ASCII decimal byte and copies it to a new array (dest).

**.data**

**array BYTE 1,2,3,4,5,6,7,8,9**

**dest BYTE (LENGTHOF array) DUP(?)**

|  |
| --- |
| **mov esi, \_\_\_\_\_\_\_\_\_\_**  **mov edi, \_\_\_\_\_\_\_\_\_\_**  **mov ecx, \_\_\_\_\_\_\_\_\_\_ ; set loop counter**  **cld**  **L1: \_\_\_\_\_\_\_\_ ; load into AL**  **or al,30h ; convert to ASCII**  **\_\_\_\_\_\_\_\_ ; store into memory**  **loop L1** |

(2) Suppose a two-dimensional array of double-words has 5 logical rows and 6 logical columns. If ESI is used as the row index, what value is added to ESI to move from one row to the next?

(3) Should we use EBP to address an array?