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CIS 11

Assignment 4

Section 4.2.8

1. inc val2

2. sub eax,val3

3. mov ax,val4

sub val2,ax

4. CF = 0 SF = 1

5. OF = 1 SF = 1

Section 4.3.8

1. False

2. False

3. True

4. False

5. True

Section 4.4.5

4. True

5. (a) 10h

(b) 40h

(c) 003Bh

(d) 3

(e) 3

(f) 2

Section 4.10

7.

; AddTwoSum\_64.asm - Chapter 3 example.

ExitProcess proto

.data

source BYTE "This is the source string",0

target BYTE SIZEOF source DUP('#')

.code

main proc

mov esi, SIZEOF source

mov ecx, OFFSET source

mov edx, 0

MYLOOP:

mov al,[source + esi - 1]

mov [target + edx],al

inc edx

inc esi

loop MYLOOP

call ExitProcess

main endp

end

ExitProcess proto

.data

source BYTE "This is a string",0

target BYTE SIZEOF source DUP('#')

.code

main proc

;initialize rcx SIZEOF source

MOV rcx, SIZEOF source

;initialize pointer to last character of target

MOV rbx,0

;start loop

MYLOOP:

;grab current character in source

MOV rdx, QWORD PTR source[rcx - rax]

;mov that character to current character in target

MOV QWORD PTR [target + rbx], rdx

;increment target pointer

INC rbx

;decrement source pointer

call ExitProcess

main endp

end