Using the debugger, find the values of the following registers after the execution of the program?

EAX = 00000080

EBX = FFFFFF80

ECX = 00000000

EDX = FFFFFF80

ESI = 00000080

EDI = 00000080

What does the suffix d, h, b, t, y do?

h = hexadecimal

r = encoded real

q/o = octal

t = decimal (alternate)

d = decimal

y = binary (alternate)

b = binary

Why do have t and y when we already have d and b?

t and y is alternate.

2.5 Programming Exercises

1. Signed and Unsigned Values

- Using the assembly program in 2.2.1, show the maximum and minimum values that can be

MOV ’ed to x86 registers?

32 bit

signed = 2147483647 to -2147483648.

unsiged = 4294967295 .

biyt 64

sined = 9223372036854775807 to 9223372036854775808

unsined = 18446744073709551615

Manipulating Register Values .

mov eax , 513

mov ebx , 12

sub eax , ebx

mov ecx , - 78h

mov edx , - 10101000b

add ecx , edx

mov esi , 128t

mov edi , 10000000y

sub esi , eax

Write an assembly program that adds the values of EBX , ECX , EDX , ESI , and EDI into the

register EAX

mov eax , 0

mov ebx , 12

mov ecx , 23

add ebx , ecx

mov edx , - 10101000b

mov esi , 55

add edx , esi

mov edi , 10000000y

add edx , edi

add edi , ebx

add eax , edi

Using registers, write an assembly program that calculates the following expression

X = (A + B + C) − (D + E)

mov ebx , 33

mov ecx , 13

mov edx , 88

add ebx , ecx

add ebx , edx

mov esi , 33

mov edi , 41

add edi , esi

sub ebx ,adi