CSE 3120 Midterm Preparation Fall 2020

Name:
ID:

1. (5.8.2-1)
Write a sequence of PUSH and POP instructions to exchange the values of EAX and EBX.

2. (5.8.2-2)
Suppose you wanted a subroutine to return to an address that was 3 bytes higher in memory than the return address currently on the stack. Write a sequence of instructions that would be inserted just before the subroutine's RET instruction that accomplish this task.

3. (4.9.2-10)
Write a sequence of instructions that set both the Carry and the Overflow flags at the same time.

4. (4.9.2-4)
Write a code using byte operands that adds two negative integers and causes the Overflow flag to be set.

5. (3.9.2-13) Declare a string variable x containing the word “TEST” repeated 500 times.

6. (1.7.1-25) Create a truth table to show all possible inputs and outputs for the Boolean function described by NOT (A OR B)

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7. (1.7.1-15) What is the decimal representation of each of the following signed binary numbers?
a) 10110111

b) 00111010

c) 11111000

8. (4.10-5) Write a program that compiles and uses a loop to calculate the first seven values, Fib(1) to Fib(7), of the Fibonacci number sequence described by the following formula: Fib(1) = 1, Fib(2)=1, Fib(n)=Fib(n-1)+Fib(n-2).