**ITCS 1212L**

**Post-Lab 7**

1. (9 points) You were told that when you are using the for-loop, you should determine the initial value of the loop control variable, the condition and the update depending on the logic of your program. What will happen if:
   1. You forget to initialize your loop control variable.
   2. You forget to include your condition.
   3. You forget to include the update rule.
2. (12 points) Use De’ Morgan’s law to convert each of these expressions to a form without parenthesis: (Look up De’ Morgan’s Law online)
   1. ! (A || B)
   2. ! (A && B)
   3. ! (A && B && C)
   4. ! (A || !B)
3. (9 points) What are the 3 types of loops available in C++? Determine the ones that are pre-test loops as well as post-test loops.
4. (5 points) Which loop is guaranteed to execute at least one time ?
5. (5 points) How many times will the following loop run?

char x;

do {

cout << “Enter your input. Correct choices are A, B, and C: “ << endl;

cin >> x;

switch ( x )

{

case ‘A’:

….

case ‘B’:

….

case ‘C’:

….

}

} while(x != ‘A’ || x != ‘B’ || x != ‘C’);

1. Create a multiplication table using a nested for-loop that the outer loop goes from 1 to 10 and the inner loop goes from 1 to 10 as well. Inside the inner loop you display the result of the multiplication of the two loop counters. (20 points)
2. Write a program that reads several integers from a file called inputFile. The program shows the sum and average of all these integers. Write the program in two different ways:
   1. Assume that there are exactly 10 data in the files on 10 different rows. Simulate it and make sure the program works. (15 points)
   2. Assume that you do not know the number of data in files and all you know is the last number is -999. (15 points)