EET165 Lab #6

Name: _____

Name: _____

Name: _____

Date performed: _____

Title: Timers

Purpose: To teach the students the difference between the different types of counters and how to use them.

Prelab: There is no prelab for this lab.

Procedure: Using the equipment and components provided in the lab, complete the lab as described.

Step 1: A parking lot has a capacity of 10 cars. When the attendant on duty opens the lot for the day, the attendant turns on switch (I:1/4) and the OPEN sign (O:2/4) lights up.

Step 2: Every time a car enters the lot, sensor (I:1/7) adds one to the number of cars in the lot. Every time a car exits the lot sensor (I:1/6) subtracts one from the number of cars in the lot.

Step 3: If the car count is under 10, a sign marked "VACANCY" (O:2/7) is lit.

Step 4: If the car count is 10 (or greater), a sign marked "FULL" (O:2/6) is lit.

Step 5: When the attendant leaves for the night, the attendant will turn off switch (I:1/4) and the CLOSED sign (O:2/3) will light up.

Step 6: When the attendant leaves (and the lot is CLOSED) the sensor counting cars entering the lot (I:1/7) is disabled.

Step 7: When the attendant leaves (and the lot is CLOSED) there may still be cars in the lot. These cars will be able to leave even if the lot is closed. Therefore, the sensor counting cars exiting the lot (I:1/6) will still work.

Step 8: It is possible that the count might be incorrect for one reason or another. Therefore, there is a switch (I:1/2) that will reset the count to zero if the system needs to be reset.

Step 9: Comment your program. Make sure all of the lab member's names are at the top of the code, the comment includes "LAB 6: Parking lot", and the date.

Step 10: When the program is working, call the instructor over and demonstrate the working PLC program. When the program is working correctly, the instructor will sign the lab below.

Signature: _____

Step 11: Print out the PLC program and attach it to the back of this lab.