EET165 Lab #8

Name: _____

Name: _____

Name: _____

Date performed: _____

Title: Data Manipulation Instructions

Purpose: To teach the students how to use different control instructions, with this lab focusing on the subroutine.

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: Switch 8 of the test panel will turn on (and off) a timer that will start at 0 and will stop at 15 seconds.

Step 2: Display the current value of the ACC value on the BCD display. The ACC value must be converted to BCD before being sent to the display. The address of the display is O:4 and O:4.0 is used to access all 16 values at the same time.

Step 3: When the display is working add a "Bar Graph" to the PCL code. Lamp 1 through Lamp 5 will be the bar graph.

a. When the ACC value is less than 3 - all the lamps should be off.
b. When the ACC value is greater than or equal to 3; Lamp 1 should be on.
c. When the ACC value is greater than or equal to 6; Lamp 1 and Lamp 2 should be on, and all the other lamps should be off.
d. When the ACC value is greater than or equal to 9; Lamp 1, Lamp 2, and Lamp 3 should be on, and all other lamps should be off.
e. When the ACC value is greater than 12; Lamp 1, Lamp 2, Lamp 3, and Lamp 4 should be on, and Lamp 5 should be off.
f. When the ACC value reaches 15, all 5 lamps should be on.

Step 4: 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 5: Print out the PLC program and attach it to the back of this lab.