Lab #10 – Design of Ripple Counters

Objective: In this lab you are to design a ripple counters.

1. Using 74LS74 flip flops and other gates, design a ripple counter that counts from 3 to 9. Implement your circuit first in Electronic Workbench and verify its operation. Once satisfied, construct it on your breadboard. Upon completion, have TA or instructor verify the design and sign both the lab cover page and your notebook.
2. Repeat step 1, for a ripple counter that counts from 9 to 3.

In preparation for this lab, each student should draw a complete logic schematic for the circuit he/she intends to construct.