Lab 10
Binary Counter

Lab report due in OCNL 318 by 5 PM on November 10

- Design a three-bit binary counter

  - The counter follows the sequence 000→001→010…110→111→000 and repeats
  - You must use at least one JK flip-flop and at least one D flip-flop
  - Do not use the 74HC193 IC

- Use a function generator or switch as a clock input

- Build your circuit and verify its operation using a state table

- Demonstrate your circuit to your TA

The report for this lab should include the following sections:

1. Description/Objectives

2. Procedure, which must include

   (a) The input equations for every flip-flop
   (b) Circuit diagram for the counter
   (c) The state table you used to test your implementation

3. Observations

4. Conclusions