

17.12.2019

**MECE 223 DIGITAL DESIGN
LAB. ASSIGNMENT**

Using the D flip-flop, design a three bit synchronous binary counter. Counter counts up from 0 to 7, continuously. If counter equals even number, output should be 1 otherwise it should be 0.

- a) Tabulate the characteristic table of D -flip-flop
- b) Tabulate the excitation table of D -flip-flop
- c) Draw the state diagram
- d) Draw the state table
- e) Draw the sequential logic circuit
- f) Implement the circuit in part e) and show to your instructor for approval
- g) Properly document your results and submit your report due on 27.12.2019