Fall 2018
EE 460R: Introduction to VLSI Design
EE 382M-7: VLSI-1
Homework #7

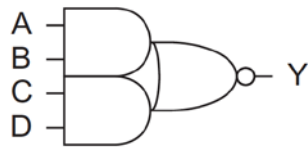**Assigned: November 13th, 2018**   **Due: November 27th, 2018**

1. **Problem 12.10 from the Exercises for Chapter 11**
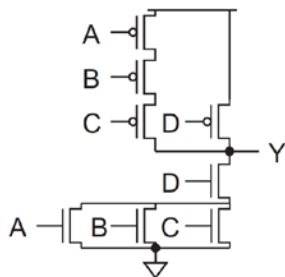
    12.10 Sketch a dot diagram for a 2-input XOR using a PLA.

2. **Derive the switching probabilities for the following circuits:**
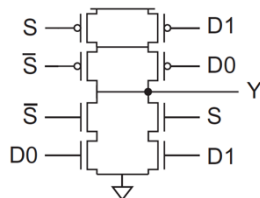
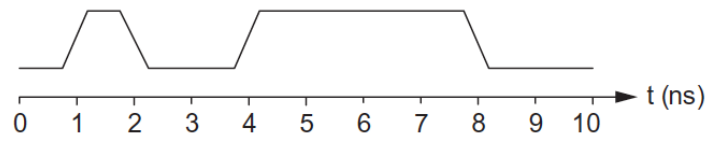   a)

    b)

    c)

3. Problem 5.4 from the Exercises for Chapter 11

5.4 Determine the activity factor for the signal shown in Figure 5.34. The clock rate is 1 GHz.

FIGURE 5.34 Signal for Exercise 5.4

4) Derive the following dynamic power equation:

$$Power_{dyn} = \frac{1}{2}\ C_{switch} * V_{dd} * \Delta V_{switch} * Freq$$