

## **CSCE 5730: Digital CMOS VLSI Design**

**Assignment 2, Assigned Dated: 09<sup>th</sup> Oct 2007 (Tue), Due Date: 18<sup>th</sup> Oct 2007 (Thu)**

**Instructor: Dr. Saraju P. Mohanty**

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1. Simulate the CMOS circuit of Example 6.2, page 240 of the text book using LTSpice. Verify that the truth tables of Boolean function and the circuit match.
2. Synthesize the Boolean function  $Y = (A*B + C*D)$ . Show all the steps. Verify the circuit functionality using LTSpice.
3. Solve Example 3.2, page-80, for  $V_S = 4\text{ V}$  and  $R_S = 5\text{ V}$  with other parameters remaining the same.
4. Solve the Example 3.5, page-90, for  $V_{SB} = -3.0\text{ V}$ .