

Name:

Id#

**COE 360, Principles of VLSI Design, Term 011
Quiz# 2**

Date: Saturday, Oct. 6

Q1. Implement the following Boolean function in CMOS using the smallest possible number of transistors. Determine the total number of transistors used in your implementation.

$$Y = A' B D + A C D + D E$$

Q2. Show the design of a rising-edge D-FF using the smallest number of transistors possible. Demonstrate by a timing diagram the correctness of your design.