COE 360, Term 071

Principles of VLSI Design
Quiz# 2

Date: Wednesday, Oct. 24, 2007

Q1. Implement the following functions using **CMOS** with <u>the smallest number of transistors</u> possible. Note that transmission gates are to be used whenever this leads to a better implementation. Indicate the number of transistors needed for your implementation including the ones needed for inverting the inputs:

(1)   F= A' B C + A' B' C'

(2)   F =A B + A C + B C

(3)   A falling-edge triggered D-flip flop.