Name: Id#

COE 200, Term 001 Fundamentals of Computer Engineering Quiz# 2

Date: Monday, Oct. 9

Q.1. Prove the identity of each of the following Boolean functions using algebraic manipulation:

a.
$$AB + A`C` + A`BC + A`B`C = A` + B$$

b.
$$A^C + AC^D + AC + A^B^C = C + D(A + B)$$

Q.2. Consider the following reduced Boolean function $F(A, B, C, D) = AC + A^C + BC + A^D$:

- a. Express the function in a sum of *minterms* and a product of *maxterms*.
- b. Find the *dual* and the *complement* of the function.