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COE 200, Term 993
Fundamentals of Computer Engineering
Quiz# 2

Date: Sunday, June 25

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

a. $AB + A'C + BCD = AB + A'C$

b. $AB' + B'C'D' + A'B'D + A'B'C = B'$

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

- a. Reduce the function into four literals using algebraic manipulation.
- b. Express the function in a sum of *minterms* and a product of *maxterms*.
- c. Find the *dual* and the *complement* of the reduced function.