Name: Id#

COE 202, Term 162

Fundamentals of Computer Engineering

Quiz# 2

 Date: Sunday, March 5

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# **Q1.** Using algebraic manipulation, simplify the following functions into minimum number of literals in sum-of-product form:

1. **F**(A,B,C) = AB'C + B'C' + AB'C'+A'C'
2. **F**(X,Y,W,Z) = Y + X’Y’WZ + Y’WZ + X’YWZ’ + Y’W’Z + XYWZ’

#

# **Q2.** Find the complement of the following function without any simplification:

## F = (XY + Z) . W' + E D'

# **Q3.** Consider the following function:

#  F = X Y + (X' + Z)(Y + Z')

1. Express F as a sum of minterms using F=∑m() notation.
2. Express F as an algebraic sum of minterms.
3. Express F as a product of maxterms using F=∏M() notation.