EGC-220 HW #3 Dr. Izadi

First Name: _____ Last Name: _____

30 Points

1. Simplify the following Boolean function by of a four-variable K-map in terms of minimum Sum of Products and minimum Product of Sums.
    a. $F(A,B,C,D)= \sum m(0, 2, 5, 8, 9, 11, 12, 13)$
    b. $F(A,B,C,D)= \sum m(0, 2, 3, 5, 7, 8, 10, 11, 14, 15)$

45 Points

2. Simplify the following Boolean functions using four variables K-maps and express your answer in minimum sum of products and minimum product of sums.
    a. $F(A,B,C,D) = \sum m (0, 1, 2, 4, 5)+ d(3, 6, 7)$
    b. $F(X, Y, Z,W) = \prod M(0, 6, 8, 13, 14) +d(2, 4, 10)$
    c. $F(A, B, C, D) = \sum m(4, 6, 7, 8, 12, 15) +d(2, 3, 5, 10, 11, 14)$

Due Date: 3/3/2023