Heimadæmi03 Greining og Hönnun stýrikerfa TÖV201G

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3.5 Simplify the following Boolean functions using variable

a) F (w,x,y,z) = (1,4,5,6,12,14,15)

b) F (A,B,C,D) = (2,3,6,7,12,13,14)

e) F(w,x,y,z) = (1,3,4,5,6,7,9,11,13,15)

d) F(A,B,C,D) = (0,2,4,5,6,7,8,10,13,15)

3.10 Simplify the following functions by first finding the essential prime implicants:

a)F(w,x,y,z) = (0,2,5,7,8,10,12,13,14,15)

b) F(A,B,C,D) = 0,2,3,5,7,8,10,11,14,15)

3.16 Simplify the following functions and implement them with two-level NAND gate circuits;

a) F(A,B,C,D) = AC'D' + A'C + ABC + AB'C + A'C'D'

B) F(A,B,C,D) = A'B'C'D + D' + B'C

d) F(A,B,C,D) = A' + B + D' + B'C

3.A0 Convert the following logic to an equivalent NOR-NOR circuit

3.A1 Convert the following Boolean funcitons from a sum-of-product form to a simplified product-of-sum

i) F(A,B,C,D) = 81,2,3,6,8,9,10,11,12,14)

ii) F(A,B,C,D) = (1,3,4,6,9,11,12,14)

In [ ]: