

Lab 5

Note:

Show all the working on paper (truth tables, K maps, equations etc.) and submit their pictures

Implement the questions where it is written; “implement on logic works” or specific part only

Q1:

For the Boolean functions **implement the circuit on Logic Works** and make a **truth table**.

$$F2 = [(A.(B+C')+(A'+C'))'] \cdot C$$

Max terms and min terms:

Q2:

Find Max terms from the following Min terms

- (i) $F(X,Y,Z) = \sum m(1,3,5,7)$
- (ii) $F(X,Y,Z) = \sum m(0,2,4,6,7)$
- (iii) $F(A,B,C) = \sum m(0,1,3,4,5,7)$

In Q2 Only Implement part (iii) on Logic Works for Max terms.

Q3:

For the Boolean function $F1(A,B,C) = \sum m(0,2,3,4,6) + d(7)$ do the following:

- a) Find truth table
- b) Find minimal SOP expression for Boolean function $F1$ using K-Maps and **implement it on Logic Works**

Q4:

For the Boolean function $F1(A, B, C, D) = \sum m(0, 2, 4, 6, 7, 8, 10, 12, 14, 15) + d(3, 11)$ do the following:

- a) Find truth table
- b) Find minimal SOP expression for Boolean function $F1$ using K-Maps and **implement it on Logic Works.**