

LAB-3

Data Table

Input Reference	A B C	F	Min Term	Max term
0	0 0 0	0		$A + B + C$
1	0 0 1	1	$A'B'C$	
2	0 1 0	1	$A'BC'$	
3	0 1 1	0		$A + B' + C'$
4	1 0 0	0		$A' + B + C$
5	1 0 1	0		$A' + B + C'$
6	1 1 0	1	ABC'	
7	1 1 1	0		$A + B' + C'$

Table : 1

	Shorthand Notation	Function
1 st Canonical form	$F = \sum(1, 2, 6)$	$F = (A'B'C) + (A'BC') + ABC'$
2 nd Canonical form	$F = \prod(0, 3, 4, 5, 7)$	$F = (A+B+C)(A+B+C')(A+B+C)(A+B+C')(A+B+C)$

Table : 2

Discussions

Maxterms $\rightarrow A + B + C = 0$



Minterms $\rightarrow A \cdot B \cdot C = 1$

1) Canonical Conjunctive Normal form \rightarrow Product Sum (POS)

2) Canonical Disjunctive Normal form \rightarrow Sum of Products (SOP)