

Section - 7 - Q - 1

Shiva

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Minterm :- A minterm is a product (AND) of all variables in the function: in direct or complemented form. A minterm has the property that it is equal to 1 on exactly one row of the truth table.

Each minterm :- 1 for only one combination of values of the variables otherwise 0.

maxterm :- a maxterm of n variables is a sum of the variables in which each appears exactly once in true or complemented form.

Function Tables for Both:

- **Minterms of 2 variables**

xy	m_0	m_1	m_2	m_3
00	1	0	0	0
01	0	1	0	0
10	0	0	1	0
11	0	0	0	1

- **Maxterms of 2 variables**

xy	M_0	M_1	M_2	M_3
00	0	1	1	1
01	1	0	1	1
10	1	1	0	1
11	1	1	1	0

- Each column in the maxterm function table is the complement of the column in the minterm function table since M_i is the complement of m_i .