

$$F = \overline{A.B} \oplus A.B = \overline{A.B} \cdot A.B + \overline{A.B} \cdot \overline{A.B} = A.B + \overline{A.B} = 1$$

A	В	A.B	A.B	$A.B + \overline{A.B}$
0	0	0	1	1
0	1	0	1	1
1	0	0	1	1
1	1	1	0	1

$$F = 1$$
 $\overline{C} = M$