② (a)

A	B	C	D	$F(A,B,C,D) = \sum (1, 3, 4, 11, 12, 13, 14, 15)$
0	0	0	0	0
0	0	0	1	1
0	0	1	0	0
0	0	1	1	1
0	1	0	0	1
0	1	0	1	0
0	1	1	0	0
0	1	1	1	0
1	0	0	0	0
1	0	0	1	0
1	0	1	0	0
1	0	1	1	1
1	1	0	0	1
1	1	0	1	1
1	1	1	0	1
1	1	1	1	1

K-map

AB \ CD	00	01	11	10
00	0	1	1	0
01	1	0	0	0
11	1	1	1	1
10	0	0	1	0

A	B	C	D	$F(A,B,C,D) = \Sigma(1,2,5,7,8,10,11,13,15)$
0	0	0	0	0
0	0	0	1	1
0	0	1	0	1
0	0	1	1	0
0	1	0	0	0
0	1	0	1	1
0	1	1	0	0
0	1	1	1	1
1	0	0	0	1
1	0	0	1	0
1	0	1	0	1
1	0	1	1	1
1	1	0	0	0
1	1	0	1	1
1	1	1	0	0
1	1	1	1	1

K-map

AB \ CD	00	01	11	10
00	1	1	0	0
01	1	0	1	1
11	1	0	0	1
10	0	1	0	1