

(b)

(1921079642)

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

$$F = \bar{C}\bar{D} + CD + \bar{A}\bar{B} + A$$

(c)

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

$$F = \bar{A}\bar{C} + D + \bar{A}B + A.$$