

$$F(a,b,c,d) = \sum m(0,1,2,3,4,5,6,8,10) + \delta(11,12)$$

$$\omega FPI : \bar{a}\bar{c}, \bar{a}\bar{d} \quad +2$$

-0.5 for surplus PI

$$\omega PI : \bar{a}\bar{b}, \bar{a}\bar{c}, \bar{a}\bar{d}, \bar{b}\bar{d}, \bar{c}\bar{d}, bc, bcd \quad +5.5$$

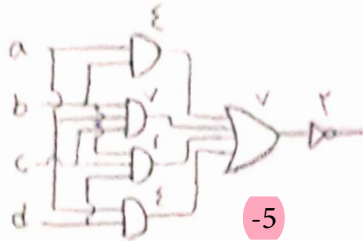
10/10

99/99/100V

100/100/100

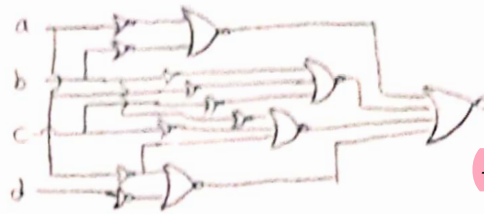
cd	00	01	11	10
ab	00	01	11	10
00	1	1	1	1
01	1	1	1	1
11	1	1	1	1
10	1	1	1	1

-6 for missed F



-5

AND - OR - INV



-5

NOR - NOR

	0	1	2	3	4	5	6	8	10
0	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1

+8

+6

$$F = \bar{a}\bar{b} + \bar{a}\bar{c} + \bar{a}\bar{d} + \bar{b}\bar{d}$$

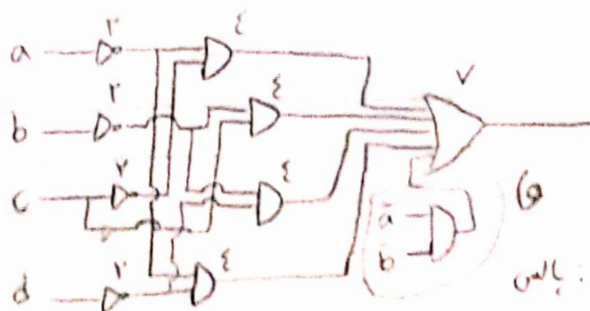
$$\bar{F} = (a+b) \cdot (a+c) \cdot (a+d) \cdot (b+d)$$

$$(a+ac+ab+bc) (ab+ad+bd+d) = (a+bc) (ab+ad) = ab+ad+abc+bcd$$

-6 for missed PIs

$$F = \bar{a}\bar{c} + \bar{a}\bar{d} + \bar{b}\bar{c} + \bar{b}\bar{d}$$

cd	00	01	11	10
ab	00	01	11	10
00	1	1	1	1
01	1	1	1	1
11	1	1	1	1
10	1	1	1	1



+12

$$0001 \leftrightarrow 0011$$

$$11 \leftrightarrow 11$$

$$0011 \leftrightarrow 0001$$

$$11 \leftrightarrow 11$$

-6 for missed solve
Hazard