

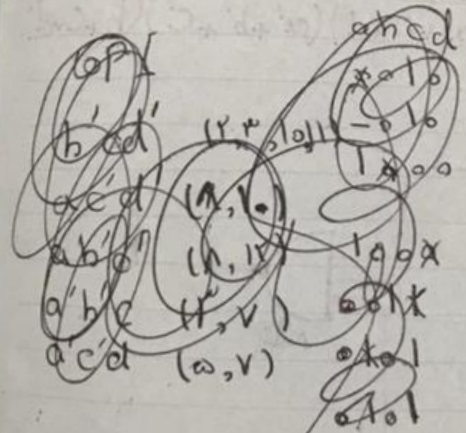
$F(a, b, c, d) = \sum m(2, 3, 5, 7, 8, 10, 11, 12, 13, 14)$ (ع)

✓ 0010 (2)	✓ (2, 3) 1
✓ 1000 (8)	✓ (2, 10) 1
✓ 0011 (3)	(8, 10) 1
✓ 0101 (5)	(8, 12) 1
✓ 1010 (10)	(3, 7) 1
✓ 1100 (12)	✓ (3, 11) 1
✓ 0111 (7)	(5, 7) 1
✓ 1011 (11)	(5, 13) 1
✓ 1101 (13)	✓ (12, 11) 1
	(12, 13) 1

(2, 3, 10, 11) (11, 8),
~~(2, 10, 3, 11) (8, 12)~~

+7

-1 because (1,4) was not wrote



$ab'd'$ (2,3) 1000
 $ab'd'$ (8,10) 1000
 $ac'd'$ (5,13) 1000
 $a'ed$ (3,7) 0111
 $a'bd$ (5,7) 0101
 $abc'd$ (12,13) 1100
 $b'c$ (2,3,10,11) 0010

+6

ab'd'	ac'd'	a'ed	a'bd	abc'd	b'c
✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓

$f(a, b, c, d) = b'c + a'bd + ac'd' + abc'd$

+2

-3

(۱) انت

$$F(a, b, c, d) = \sum m(2, 3, 5, 7, 10, 11, 12, 13) + d(4)$$

-2 because of 3 PI were not wrote

+4

cd \ ab	00	01	11	10
00	0	0	1	1
01	0	1	1	0
11	1	1	0	0
10	1	0	1	1

$$\rightarrow a'c + b'c + bcd + ac'd$$

-3 for missed PIs

LoEPI: —

-2

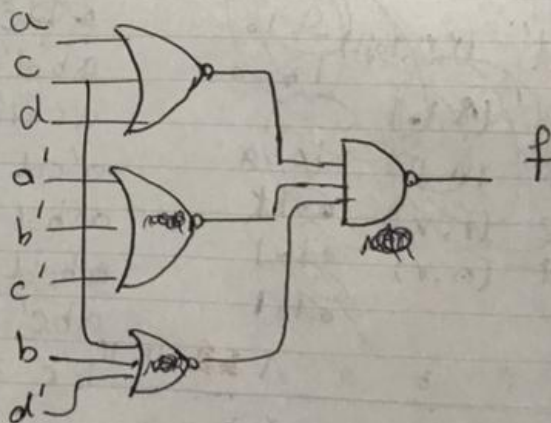
$$F(a, b, c, d) = a'c + b'c + bcd + ac'd$$

+3

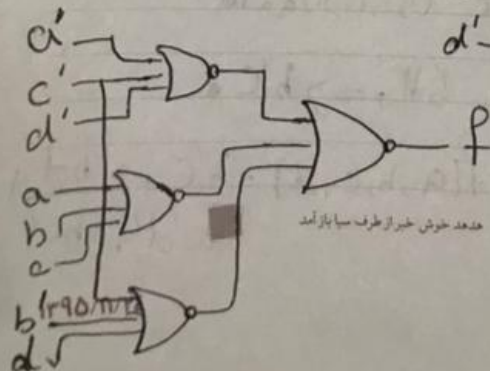
مضامین های بالا POS هستند
۶PI

cd \ ab	00	01	11	10
00	0	0	1	1
01	0	1	1	0
11	1	1	0	0
10	1	0	1	1

$$F(a, b, c, d) = (a + c + d)(a' + b' + c')(b + c + d')$$



-5 for missed AND-OR-INV gate



+5

مؤد ای دل که دکر یاد صیا باز آمد