

cd

ab

00	00	01	11	10
00			-	0
01			0	
11	0		0	0
10	0	0		

(P) (ن)

+4.5

sop

PI

ePI

cd

ab

00	00	01	11	10
00	1	1	-	0
01	1	1	0	1
11	0	0	-	1
10	0	1	0	0

$\bar{a}\bar{c}$

$\bar{a}\bar{c}$

+2

$\bar{a}b\bar{d}$

$\bar{b}\bar{c}d$

$\bar{b}\bar{c}d$

$b\bar{c}d$

$b\bar{c}d$

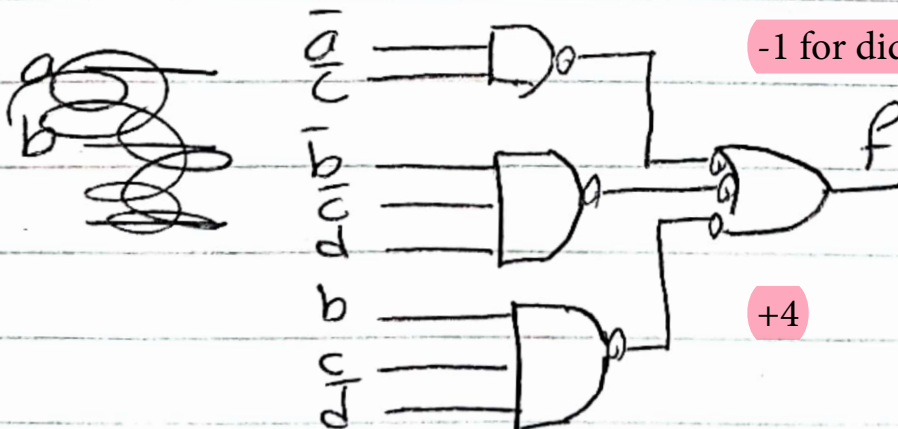
$\bar{a}b\bar{d}$

-0.5 for surplus PI

abc

sop: $f(a,b,c,d) = \bar{a}\bar{c} + \bar{b}\bar{c}d + b\bar{c}d$

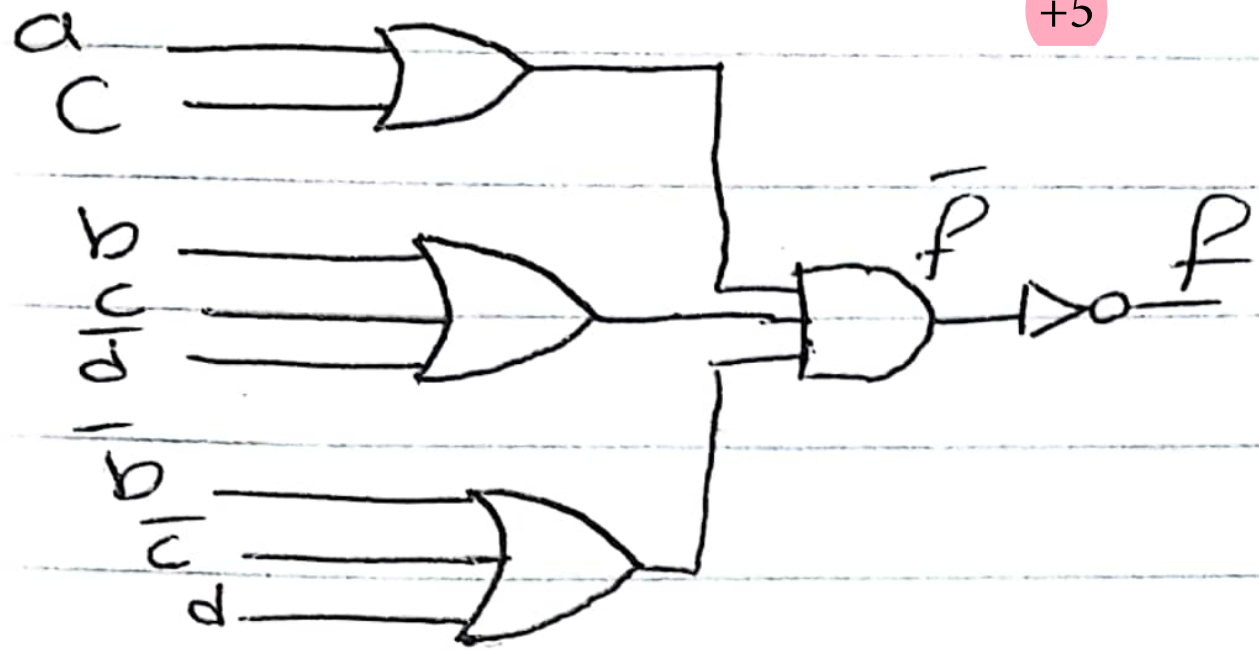
+4



-1 for did not convert gate

+4

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



+5

$$f(a,b,c,d) = m(0,1,7,5,6,9,14) \cdot D(3,15)$$

✓ 0	(0,1) 1	(0,1,4,5) (1,4)
✓ 1	(0,4) 4	(0,4,7,5) (4,7)
✓ 4	(1,3) 2	
✓ 3	(1,5) 4	(1,2,6,14) (8,5)
✓ 5	(1,9) 8	
✓ 6	(4,5) 1	
✓ 9	(4,6) 2	
✓ 14	(6,14) 8	+8
✓ 15	(14,15) 1	

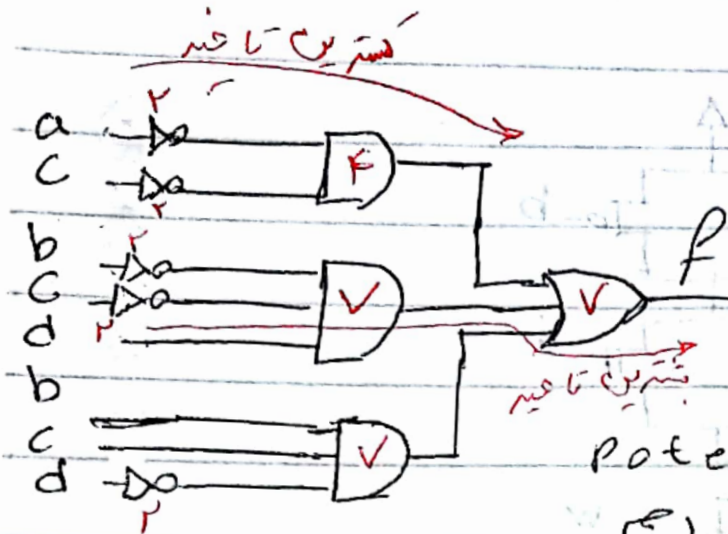
m_i	0	1	4	5	6	9	14
PI	2	0	0	0	0	0	0
$\bar{a} \bar{c}$	x	x	x	x			
$\bar{a} b \bar{d}$			x		x		
$b c \bar{d}$							
$\bar{a} \bar{b} d$		x					x
abc							

+5
-1 for missed PI

$$P_0 = \bar{a} \bar{c} +$$

-6

$$f = \bar{a}\bar{c} + b\bar{c}d + bcd$$



+12

Potential: 0110 ↔ 0100

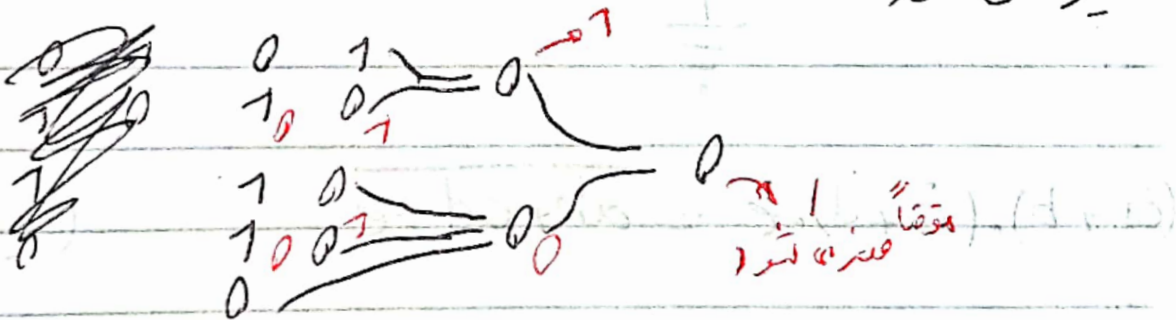
تغییر در C رخ دهد هتار در (م)

۱۲ ۱۵ ۱۶

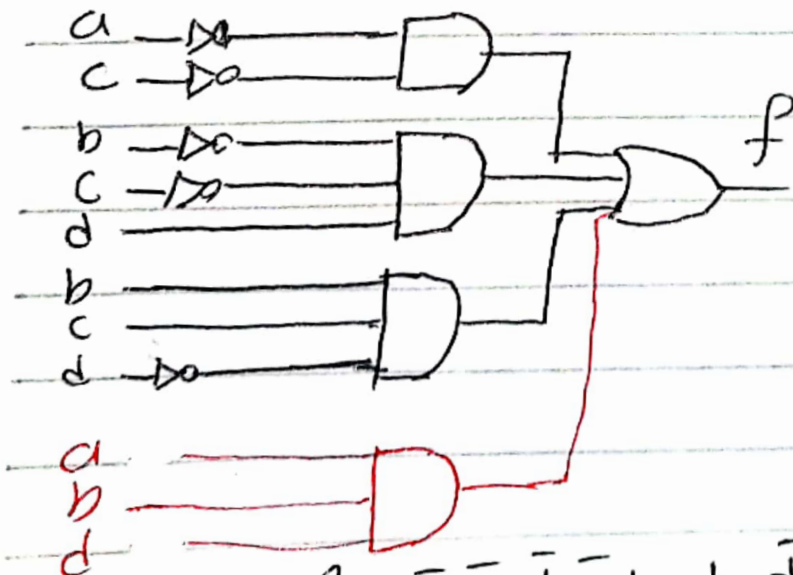
۰ ۱ ۱ ۰ ۰ ۱ ۰ ۰

$$(2+V+V) - (2+E+V) = 3_{ns}$$

سیرا می شود



(9)



+12

+6

$$f = \bar{a}\bar{c} + b\bar{c}d + bcd + \bar{a}b\bar{d}$$