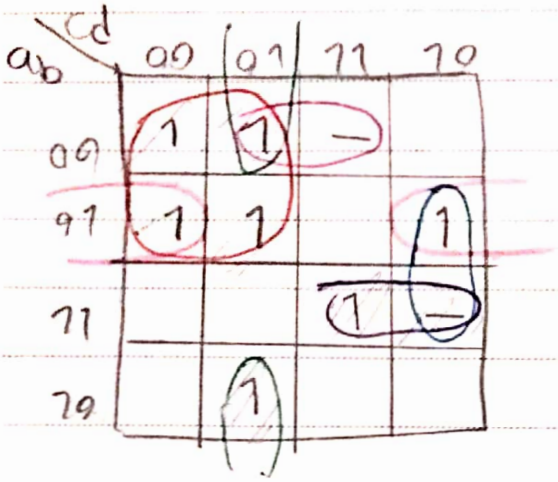
Subject :
Date

$F(a,b,c,d) = \Sigma m(0,1,4,5,6,9,14) + D(3,15)$ (أ)



b PI

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

$\bar{a}\bar{b}d$ -0.5

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

$\bar{a}bd$

$bc\bar{d}$ +4.5

abc

b EPI

$\bar{a}\bar{c}$ +1.5

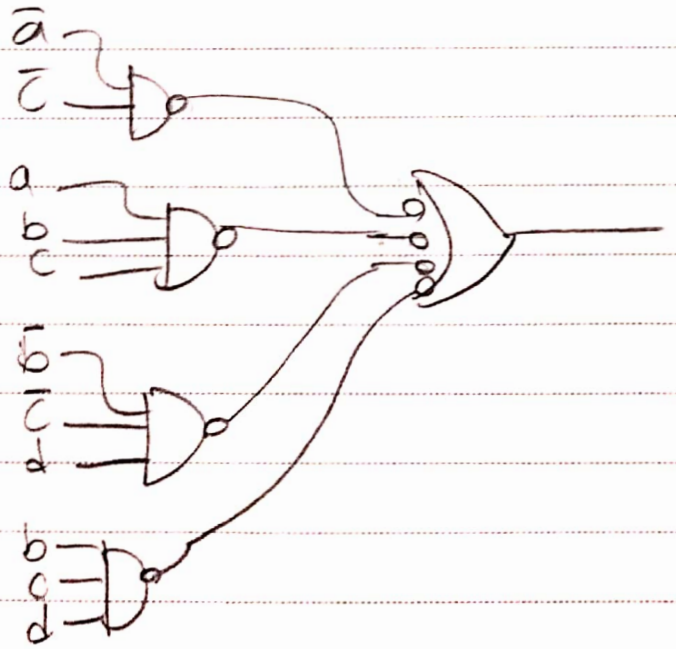
abc

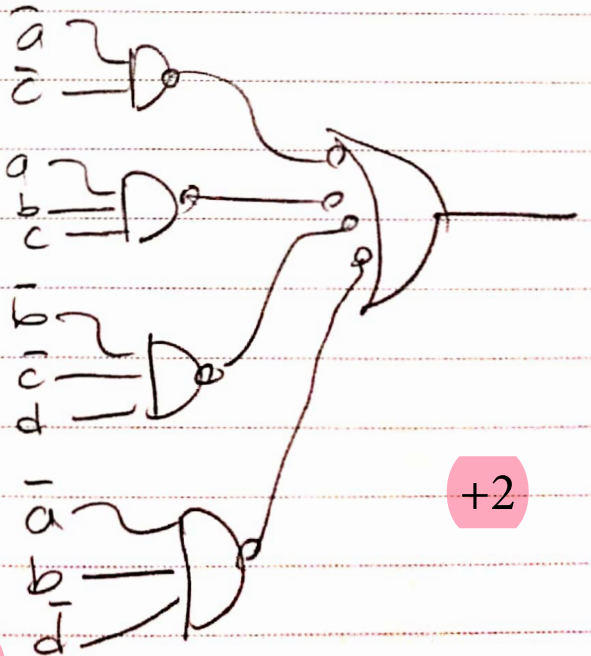
$\bar{b}\bar{c}d$ -0.5

$f(a,b,c,d) = \bar{a}\bar{c} + abc + \bar{b}\bar{c}d + \{bc\bar{d}, \bar{a}bd\}$ +2

-2

NAND-NAND (ب





+2

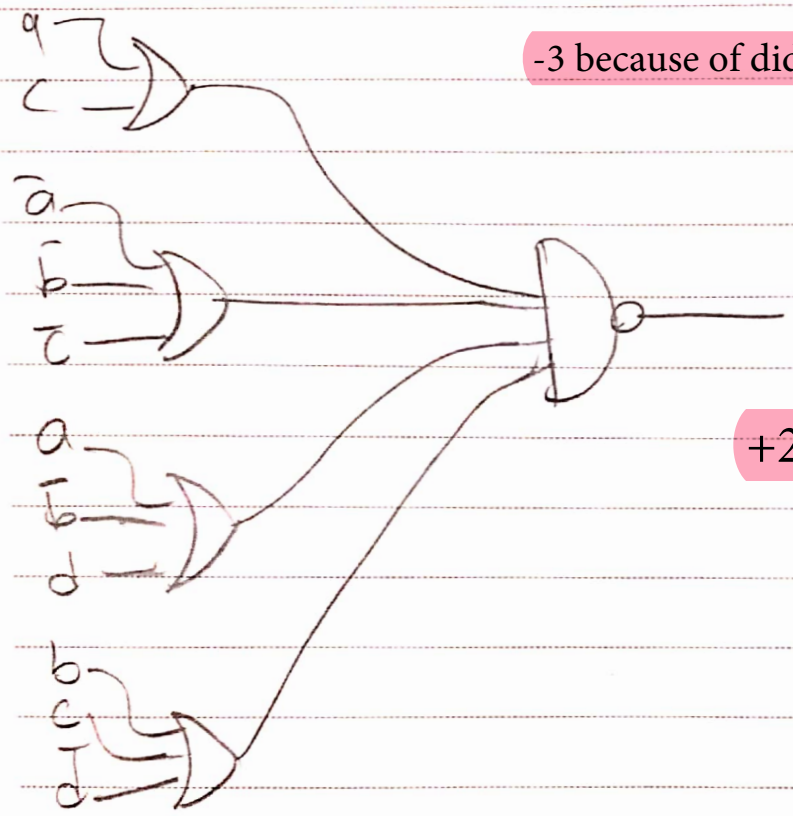
-3 because of did not find F correctly

Subject:
Date

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

OR-AND
INV

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



-3 because of did not find F correctly

+2

ج) کوئین مکلاسکی

0
1
4
3
5
6
9
14
15

(0,1) 1
(0,4) 4
(1,3) 2
(1,5) 4
(1,9) 8
(4,5) 1
(4,6) 2
(6,14) 8

(0,1,4,5) (1,4)
(0,4,1,5) (4,1)

+7

-1 for missed (14,15)

Subject :
Date

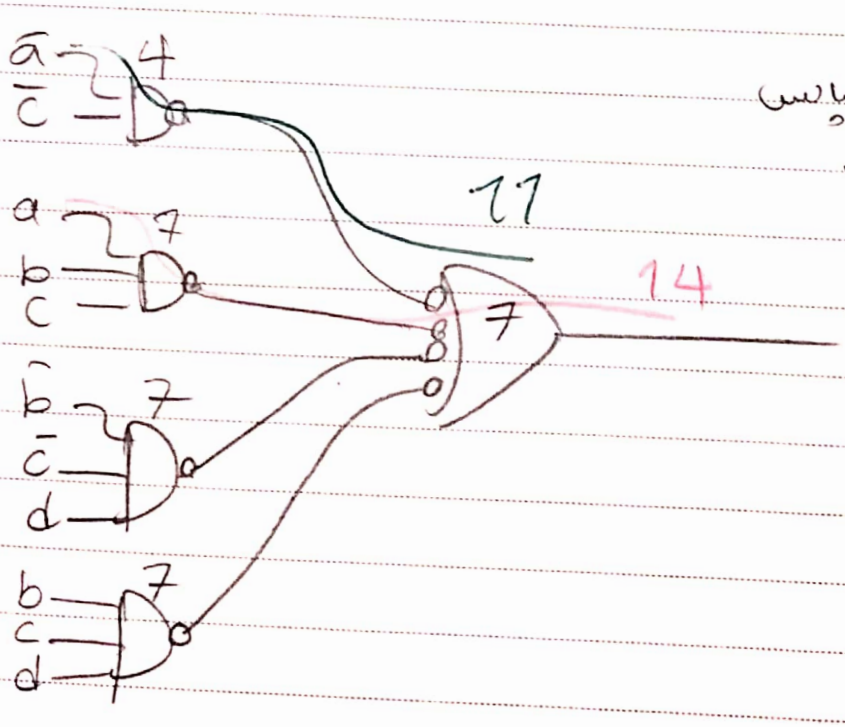
ToPI	0	1	4	5	6	9	14
$\bar{a}\bar{c}$	X	x	x	X			
$\bar{a}b\bar{d}$		X					
$b\bar{c}d$		X				X	
$\bar{a}b\bar{d}$			X		X		
$bc\bar{d}$					X		
abc							X
	✓		✓			✓	✓

+6

+3

-3 for missed "3" in col and incomplete F

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



عضو باس $14 - 11 = 3$

abcd abcd

0 111 → 1 111

-12