

سوال (۲) الف

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

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

ΣPI

$$b\bar{c}$$

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

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

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

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

ΣEPI

$$b\bar{c}$$

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

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

POS

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

$$F_s \bar{a}\bar{c} + bcd + abc$$

+2

-2

ΣPI

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

$$bcd$$

$$abc$$

+3

ΣEPI

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

$$bcd$$

$$abc$$

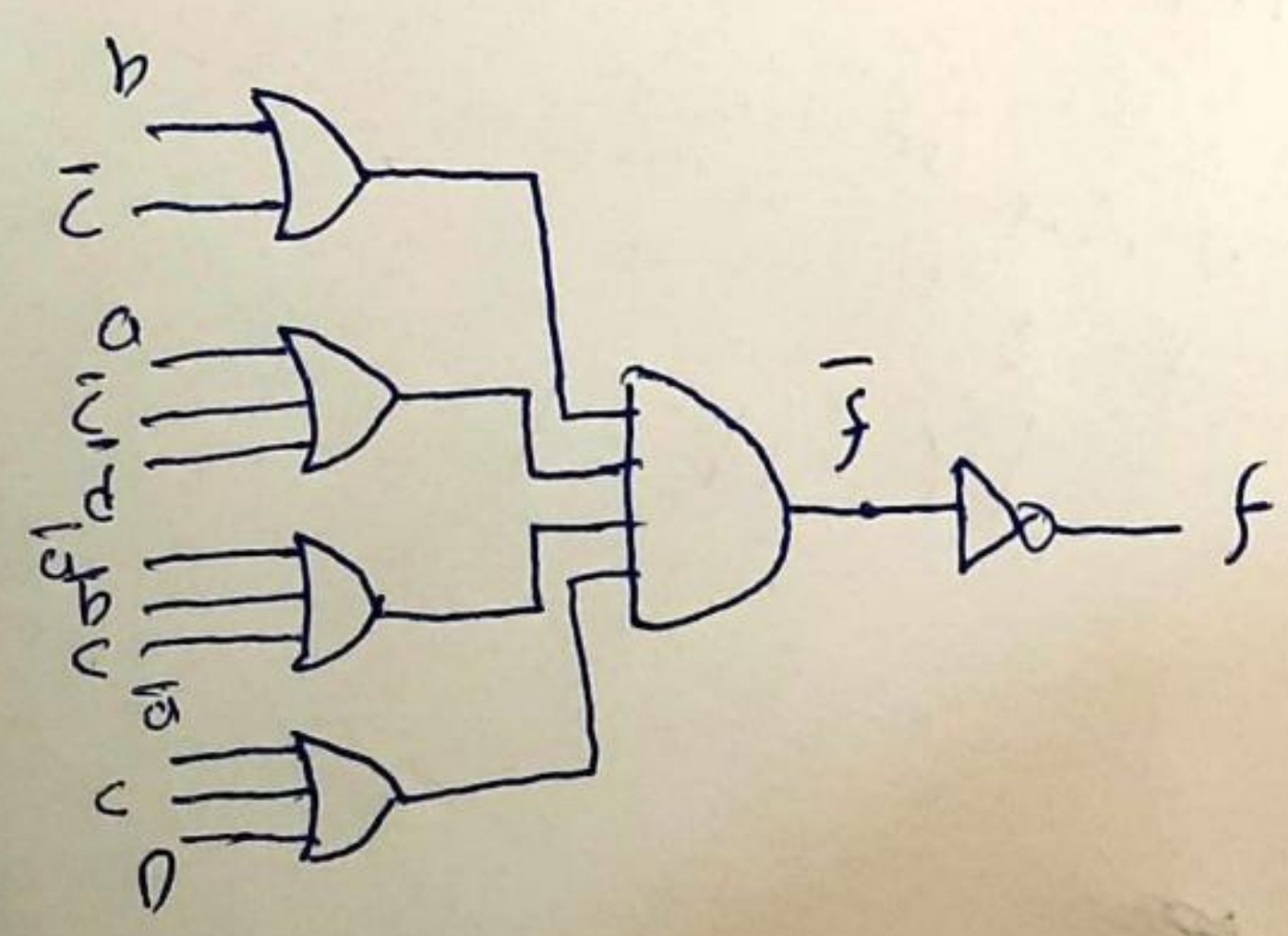
+1

SOP

-1 for surplus EPI

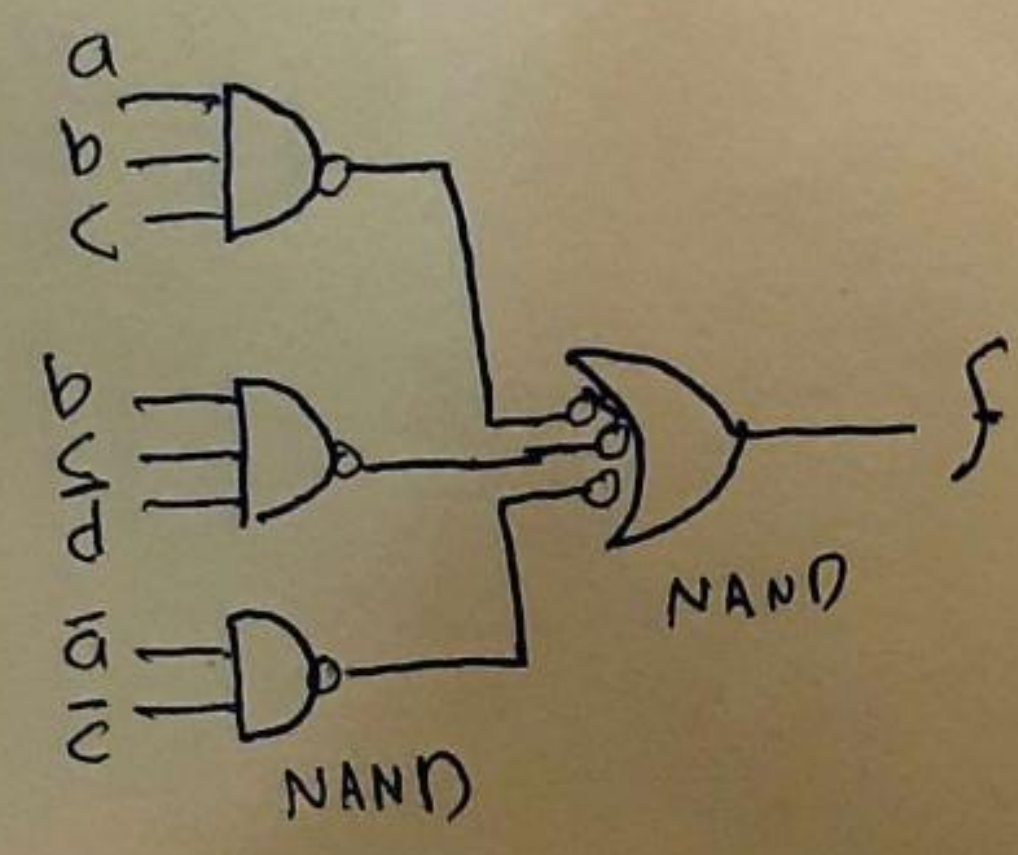
-2 for missed PIs

(OR-AND-INV)



-5

(NAND-NAND)



-5

0	$\sqrt{(0,1)} 1$
1	$(0,4) 4$
4	$(1,5) 4$
5	$(1,9) 1$
9	$(1,3) 2$
3	$\sqrt{(4,5)} 1$
14	$(4,9) 2$
13	$(9,14) 1$
15	$(14,15) 1$

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

+8

ωPI
 $\bar{a}\bar{c}$
 bcd
 abc

+3

-3 for missed PIs

-6 for for did not write table and F

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

$\frac{abcd}{\text{---}} \longleftrightarrow \frac{abcd}{\text{---}}$
 $1000 \longleftrightarrow 1010$

$\sqrt{1+4+9+16}$
 $2+4+9+16$
 $19-16=3$

-12

