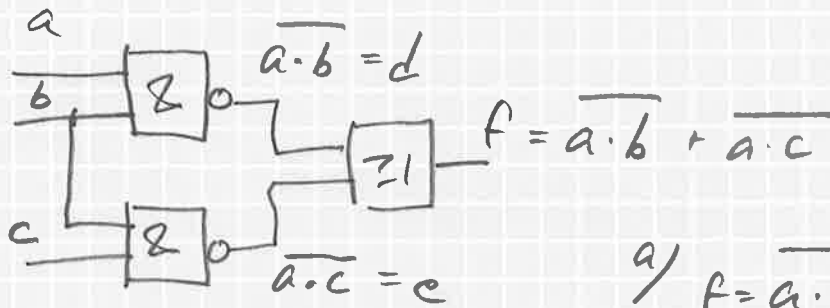


1/



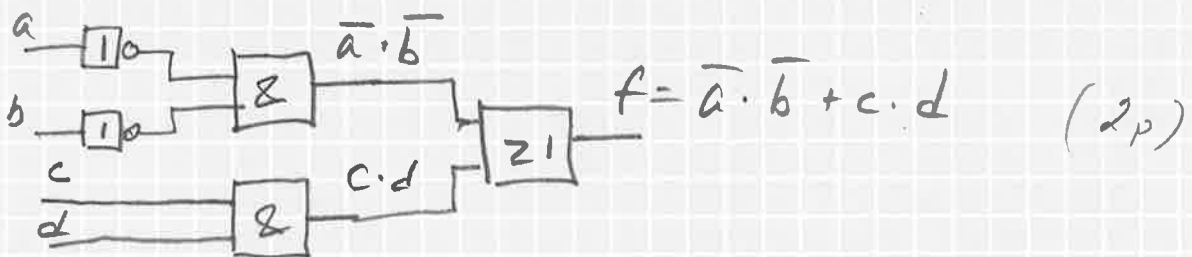
a) $f = \overline{a \cdot b} + \overline{a \cdot c}$ (2p)

b)

a	b	c	d	e	f
0	0	0	1	1	1
0	0	1	1	1	1
0	1	0	1	1	1
0	1	1	1	0	1
1	0	0	1	1	1
1	0	1	1	1	1
1	1	0	0	1	1
1	1	1	0	0	0

(2p)

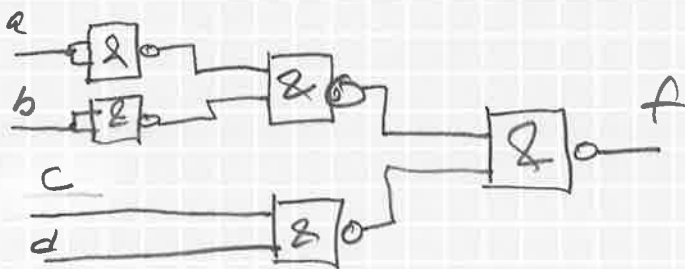
2)



(2p)

b)

$f = \overline{\overline{a \cdot b} + c \cdot d} = \overline{\overline{a \cdot b}} \cdot \overline{c \cdot d}$ (2p)



3)

		cd			
f		00	01	11	10
ab	00		1	1	3
	01	1	1	1	2
	11	1	1		4
	10	1			

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

$$f = \bar{c} \cdot d + \bar{a} \cdot b + \bar{a} \cdot d + b \cdot d \quad (4p)$$

4)

1	1	61
2	0	60
4	1	60
8	1	56
16	1	48
32	1	32
64	0	
128	0	

\Rightarrow a) $61_{10} = 00111101_2$

b) $61_{10} = 75_8$

c) $61_{10} = 3D_{16}$

d) 2

$$00111101_2 = 11000010 + 1$$

Svar: 11000011_2

5)

Se sid 67 i läroboken! (2p)