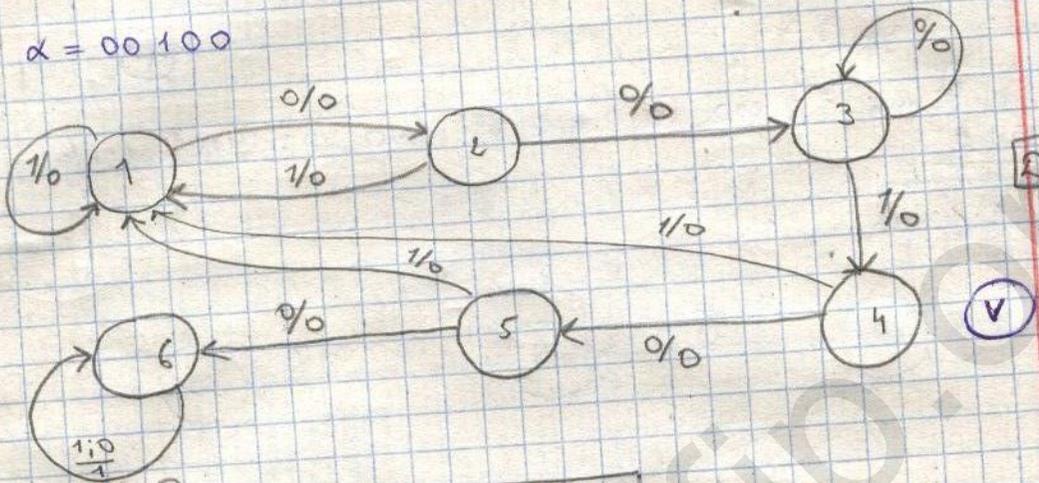


hzo?

N1.

$\alpha = 00100$



S M S

AT S Q	1	2	3	4	5	6
A	0	3/0	3/0	3/0	5/0	6/1
	1	1/0	1/0	1/0	1/0	5/1
		①	①	①	①	②

min
=>

	①	②
1	2	6
2	①	②
3	①	②
4	①	②
5	①	②
6	①	③

min
=>

	①	②	③
1	①	②	③
2	①	②	③
3	①	②	③
4	①	②	③
5	①	②	③
6	①	②	③

min
=>

	①	②	③	④
1	①	②	③	④
2	①	②	③	④
3	①	②	③	④
4	①	②	③	④
5	①	②	③	④
6	①	②	③	④

	①	②	③	④	⑤
1	①	②	③	④	⑤
2	①	②	③	④	⑤
3	①	②	③	④	⑤
4	①	②	③	④	⑤
5	①	②	③	④	⑤
6	①	②	③	④	⑤

maximum
abstrakt

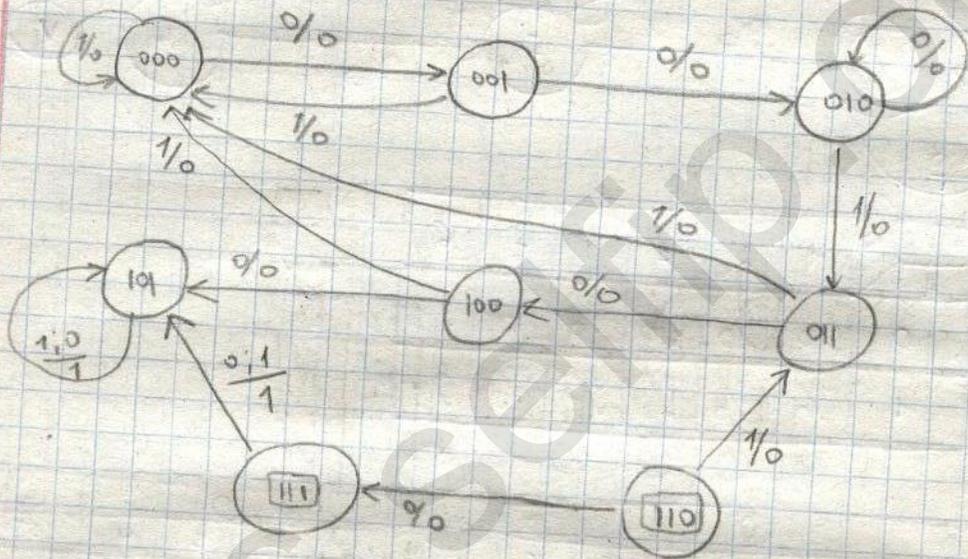
$$|Q_{min}| = Z_{min} = 6$$

$$S_{min} = 3$$

$$Q_{min} = \{ 000 \ 001 \ 010 \ 011 \ 100 \ 101 \ \boxed{110} \ \boxed{111} \}$$

Bagara 2

QM S_{min}



At S _{min} → x(t)	0,1,0 000	001	010	011	100	101	110	111
0	001 0	010 0	010 0	100 0	101 0	101 1	110 0	111 1
1	000 0	000 0	011 0	000 0	000 0	101 1	011 0	101 1

N2. LIT0?

K_4 | S_{min}

$[x(t), q_{1,2,3}(t-1)]$

$$\vec{q}_1(t) = (0001 \quad 11 \boxed{1} \boxed{1} \quad 0000 \quad 01 \boxed{0} \boxed{1})$$

$$\vec{q}_2(t) = (0110 \quad 00 \boxed{1} \boxed{0} \quad 0010 \quad 00 \boxed{1} \boxed{0})$$

$$\vec{q}_3(t) = (1000 \quad 11 \boxed{1} \boxed{1} \quad 0010 \quad 01 \boxed{1} \boxed{1})$$

$$z(t) = (0000 \quad 01 \boxed{0} \boxed{1} \quad 0000 \quad 01 \boxed{0} \boxed{1})$$

T_{k, q_1}	0	1	1	0
x, q_2	0	0	1	1
0,0			✓	
0,1	✓	✓	✓	✓
1,1		✓	✓	✓
1,0				

$\vec{q}_1(t)$

	✓		✓
		✓	✓
		✓	✓
			✓

$\vec{q}_2(t)$

✓			
✓	✓	✓	✓
	✓	✓	✓
			✓

$\vec{q}_3(t)$

✓	✓	✓	✓
✓	✓	✓	✓

$z(t)$

$$\vec{q}_1(t) = \overline{x} q_1 \vee q_1 q_3 \vee \overline{x} q_2 q_3 = \overline{x}^3 (q_1 \vee q_2 q_3) \vee q_1 q_3$$

$$\vec{q}_2(t) = q_2 q_3 \vee \overline{x} q_1 q_2 q_3 \quad (5)$$

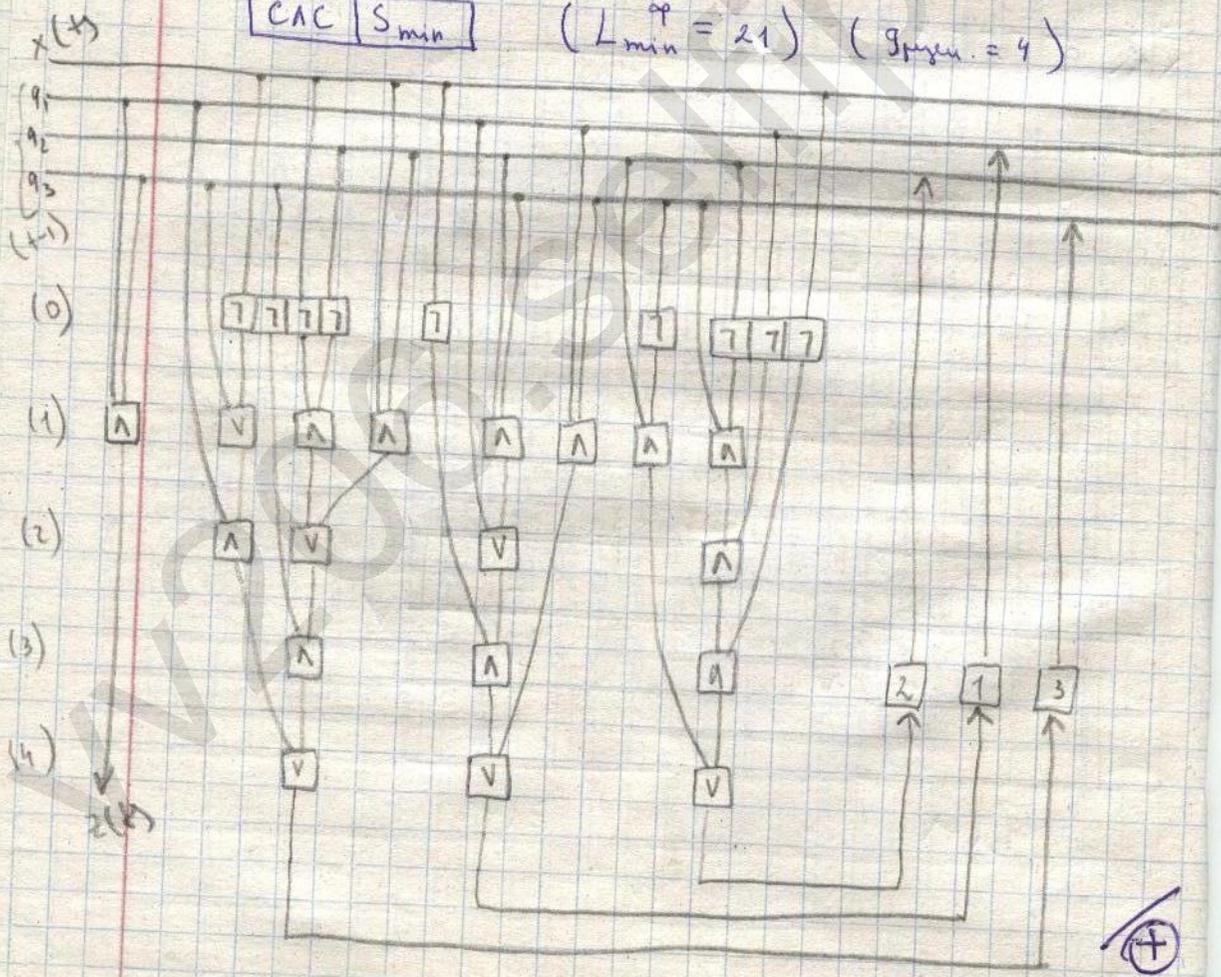
$$\vec{q}_3(t) = \overline{x} q_1 \vee q_1 q_2 \vee \overline{x} q_2 q_3 \vee \overline{x} q_2 q_3 =$$

$$= q_1 (\overline{x} \vee q_3) \vee q_3 (\overline{x} q_2 \vee x q_2) \quad (7)$$

$$\vec{z}(t) = q_1 q_3 \quad (1)$$

$(L_{\min}^{\text{op}} = 18)$

CAC | S_{min} ($L_{\min}^{\text{op}} = 21$) ($g_{\text{max}} = 4$)



5)

№3. кто?

$$\Sigma_a = \{ \text{KS-тип} \}, \Sigma_0 = \{ \Gamma, \Lambda, \Psi \}$$

$\begin{matrix} H \\ A \end{matrix}$	$\begin{matrix} S \\ Q \end{matrix}$	1	2	3	4	5	6
0	0	2/0	3/0	3/0	5/0	6/0	0/1
1	1	1/0	1/0	4/0	1/0	1/0	6/1

[Когнитивная Q_{min}]

"1"	- 4 -	000
"2"	- 1 -	011
"3"	- 2 -	010
"4"	- 1 -	100
"5"	- 1 -	101
"6"	- 3 -	001

$\begin{matrix} S \\ X \end{matrix}$	$\begin{matrix} (H) \\ a \end{matrix}$	000	001	010	011	100	101	110	111
0	0	0	1	0	0	0	0	□	□
1	0	0	0	1	0	0	0	□	□
	1	0	1	0	0	0	0	□	□

$\begin{matrix} RS \\ (H) \\ a \end{matrix}$	0	1
$\begin{matrix} (H) \\ RS \end{matrix}$	0	1
00	0	1
01	1	1
10	0	0

$\begin{matrix} RS \\ (H) \\ a \end{matrix}$	0	1
$\begin{matrix} (H) \\ RS \end{matrix}$	0	1
0	0	1
1	0	0
	1	□

$R_{S,1,2,3}^{(H)}$	000	001	010	011	100	101	110	111
$X(H)$	000	001	010	011	100	101	110	111
0	000	001	010	011	100	101	110	111
1	000	001	010	011	100	101	110	111

$$\left(\frac{R}{S}\right)_1, \left(\frac{R}{S}\right)_2, \left(\frac{R}{S}\right)_3$$

[+]

$[X(H), q_{1,2,3} (+-)]$

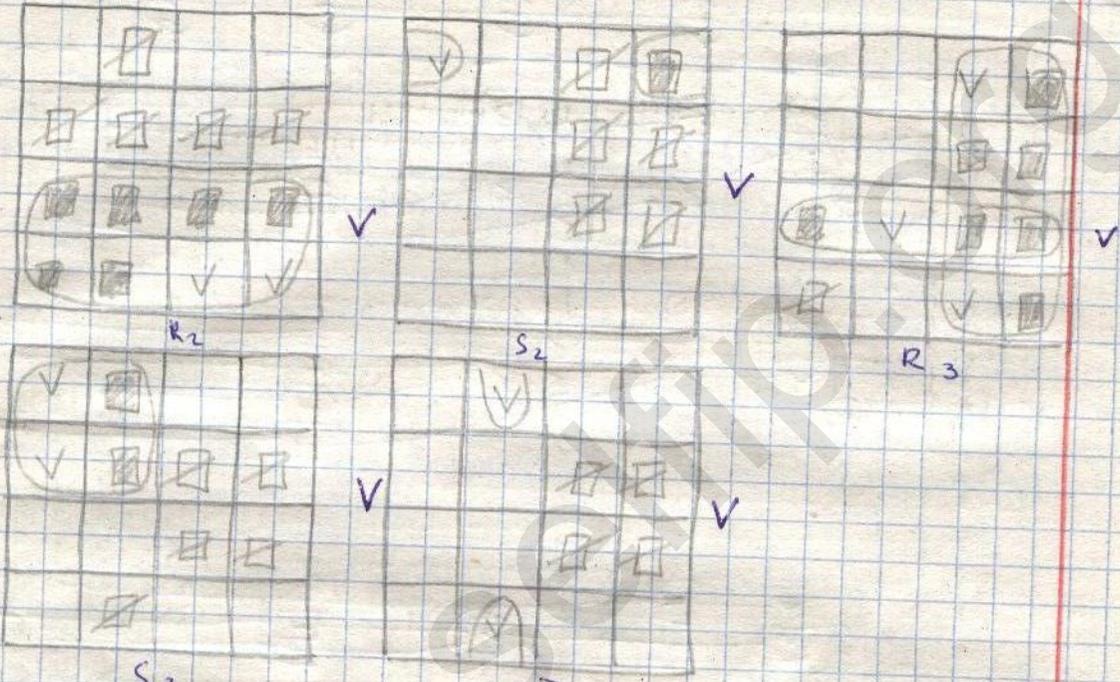
$$\begin{aligned}
 R_1 &= (\square \square \square \square \quad 0 \ 1 \ \square \square \quad \square \square \ 0 \square \quad 1 \ 1 \ \square \square) \\
 S_1 &= (0000 \quad \square \square \square \square \quad 0010 \quad 00 \square \square) \\
 R_2 &= (0 \square 00 \quad \square \square \square \square \quad \square \square 11 \quad \square \square \square \square) \\
 S_2 &= (10 \square \square \quad 00 \square \square \quad 0000 \quad 00 \square \square) \\
 R_3 &= (00 \square 1 \quad 00 \square \square \quad \square 0 \square 1 \quad \square 1 \square \square) \\
 S_3 &= (1 \square 00 \quad 1 \square \square \square \quad 0 \square 00 \quad 00 \square \square) \\
 Z &= (0100 \quad 00 \square \square \quad 0100 \quad 00 \square \square)
 \end{aligned}$$

T_k	q_3	0	1	1	0
X	q_1	0	0	1	1
00		□	□	□	□
01			✓	□	□
11		✓	✓	□	□
10		□	□	□	

□	□	□	
	□	□	
		✓	

R_1

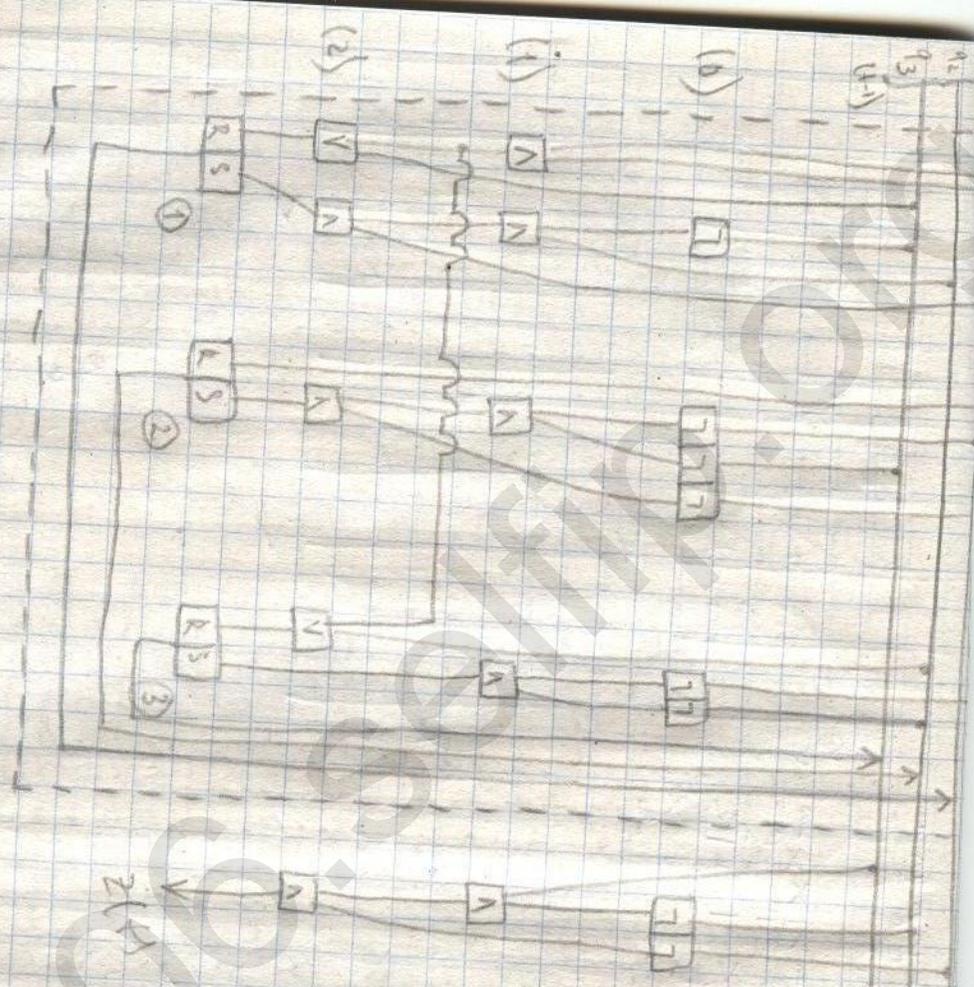
S_1



$$\begin{aligned}
 R_1 &= q_2 \sqrt{q_1} \\
 S_1 &= \frac{1}{q_2 q_3} \\
 R_2 &= \frac{1}{q_1} \\
 S_2 &= \frac{1}{q_1 q_3} \\
 R_3 &= \frac{1}{q_2} \sqrt{q_1} \\
 S_3 &= \frac{1}{q_2} \\
 Z &= \frac{1}{q_1 q_2 q_3}
 \end{aligned}$$

$$(L_{\min}^{\text{opt}} = 10)$$

CCA ; $L_{\min}^{\text{opt}} = 13$; sp. 2.



$$L_{\min}^{\phi} = 13$$

⊕ !

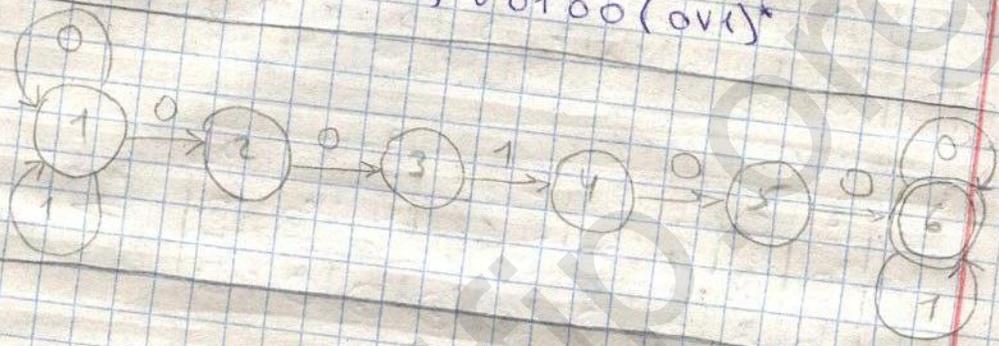
Handwritten scribbles on the left margin of the graph paper.

N4.

$$\alpha = 00100$$

$$A_0 = \{0, 1\}$$

$$L = A_0^* \alpha A_0^* = (0V1)^* 00100 (0VK)^*$$



⊕

N5.

M(L)Q	1	12	123	14	125	1236	146	1256	16	126
A										
0	12	123	123	125	1236	1236	1256	1256	16	126
1	1	1	14	1	1	146	16	1256	126	1236
M	0	0	0	0	0	1	1	1	1	1
	V	V	V	V	V	W	W	W	W	W

1	2	3	4	5	6	7	8	9	10
2	3	3	5	6	6	8	6	10	6
1	1	4	1	1	7	9	9	9	9
V	V	V	V	V	W	W	W	W	W

min
→

N6

⊕

1	2	3	4	5	6	7	8	9	10
2	3	3	5	6	6	8	6	10	6
1	1	4	1	1	2	3	3	9	9

min
→

1	2	3	4	5	6	7	8	9	10
2	3	3	5	6	6	8	6	10	6
1	1	4	1	1	2	3	3	9	9

min
→

1	2	3	4	5	6	7	8	9	10
2	3	3	5	6	6	8	6	10	6
1	1	4	1	1	2	3	3	9	9

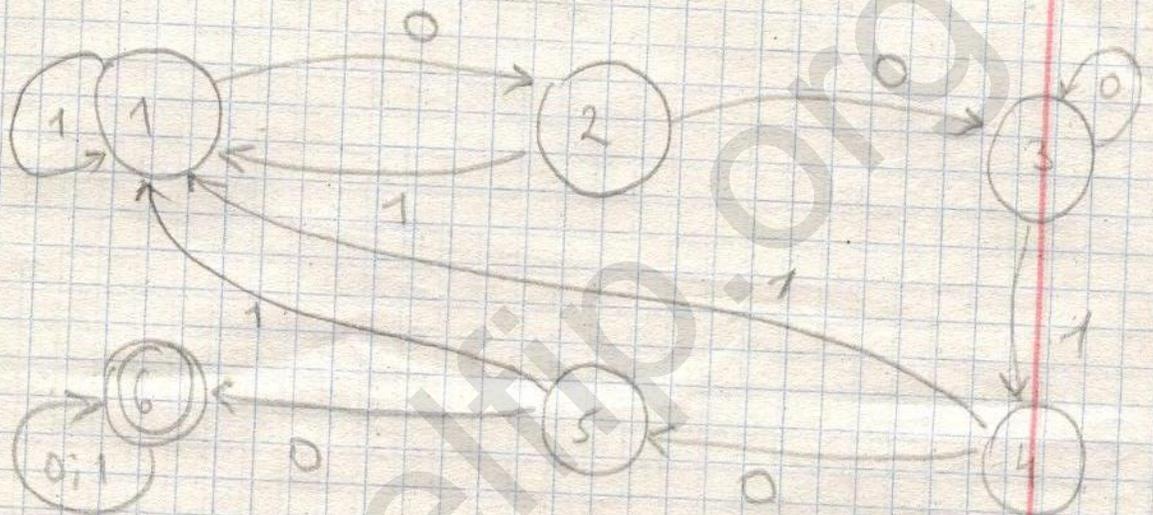
min
→

1	2	3	4	5	6	7	8	9	10
2	3	3	5	6	6	8	6	10	6
1	1	4	1	1	2	3	3	9	9

↓
min - alternative:

M(k) min	Q	1	2	3	4	5	6
k	Q	1	2	3	4	5	6
0		2	3	3	5	6	6
1		1	1	4	1	1	6
u		0	0	0	0	0	1

⊕



полученный автомат
автомату из задания 1.

функционален

Контроль $\tilde{\omega}_M = 000001$

$d = 001001$

$q_0^M = 123456$

$q_0^S = 123456$

$\tilde{\omega}_S = 000001$

?!
☺

⊕