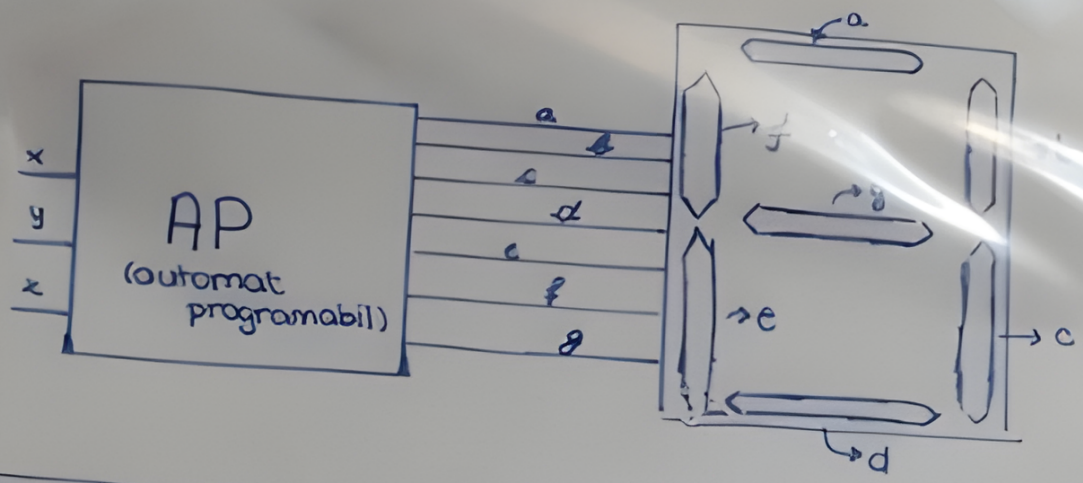
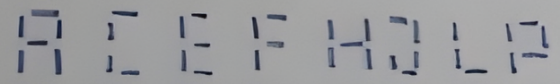


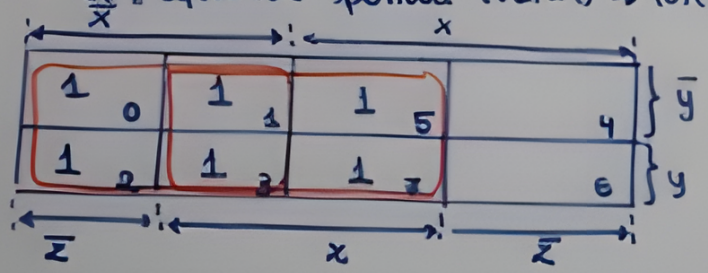
Nr Crt	x	y	z	Afișajul	a	b	c	d	e	f	g
0	0	0	0	A	1	1	1	•	1	1	1
1	0	0	1	C	1	•	•	1	1	1	•
2	0	1	0	E	1	•	•	1	1	1	1
3	0	1	1	F	1	•	•	•	1	1	1
4	1	0	0	H	•	1	1	•	1	1	1
5	1	0	1	J	1	1	1	1	1	•	•
6	1	1	0	L	•	•	•	1	1	1	•
7	1	1	1	P	1	1	•	•	1	1	1
					Q_1	Q_2	Q_3	Q_4	Q_5	Q_6	Q_7



(a) (c) (e) (f) (h) (j) (l) (p)

→ reprezentare în afișeor

(a) → se „aprinde" pentru (val = 1) ⇒ (0)(1)(2)(3)(5)(7)



$\bar{x}\bar{y}\bar{z} = 000 \Rightarrow (0)$

$\bar{x}\bar{y}z = 001 \Rightarrow (1)$

$x\bar{y}z = 101 \Rightarrow (5)$

$x\bar{y}\bar{z} = 100 \Rightarrow (4)$

$\bar{x}y\bar{z} = 010 \Rightarrow (2)$

$\bar{x}yz = 011 \Rightarrow (3)$

$xyz = 111 \Rightarrow (7)$

$xy\bar{z} = 110 = (6)$

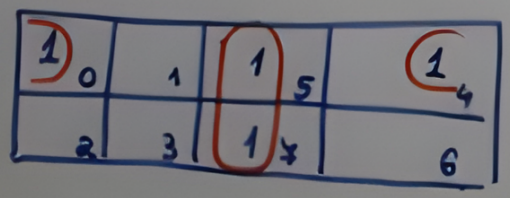
$((0)+(1)+(2)+(3)) + ((1)+(3)+(5)+(7))$

$(\bar{x}\bar{y}\bar{z} + \bar{x}\bar{y}z + \bar{x}y\bar{z} + \bar{x}yz) + (\bar{x}\bar{y}z + \bar{x}yz + x\bar{y}z + xyz)$

$\bar{x} + z$ sau $((0)+(1)+(2)+3) + ((5)+(7)) = \boxed{\bar{x} + xz}$ → (a) Q_1

$\bar{I}_1 + I_1 \cdot I_3$

(b)



→ se aprinde (0)(4)(5)(7)

$((0)+(4)) + ((5)+(7))$

$(\overline{xyz} + x\overline{yz}) + (x\bar{y}z + xyz) = \boxed{\bar{y}\bar{z} + xz}$ → (b) Q_2

$\bar{I}_2 \cdot \bar{I}_3 + I_1 \cdot I_3$

(c) → se aprinde pentru (0)(1)(5)

1 0	1	1 5	1 4
2	3	7	6

$((0)+(3)) + ((5)+(4))$

$(\bar{x}\bar{y}\bar{z} + x\bar{y}\bar{z}) + (x\bar{y}z + x\bar{y}\bar{z})$

$\boxed{\bar{y}\bar{z} + x\bar{y}}$ → (c) Q3

$\bar{I}_2 \cdot \bar{I}_3 + I_1 \cdot \bar{I}_2$

(d) → se aprinde pentru (1)(2)(5)(6)

0	1 1	1 5	4
1 2	3	7	1 6

$((1)+(5)) + ((2)+(6)) = (\bar{x}\bar{y}z + x\bar{y}z) + (\bar{x}y\bar{z} + xy\bar{z})$

$= \boxed{\bar{y}z + y\bar{z}}$ → (d) Q4

$\bar{I}_2 \cdot I_3 + I_2 \cdot \bar{I}_3$

(e) se aprinde pentru (0)(1)(2)(3)(4)(5)(6)(7)

1 0	1 1	1 5	1 4
1 2	1 3	1 7	1 6

$\boxed{e = 1}$ → Q5

$i_1 + i_2 + i_3$

(f) se aprinde pentru (0)(1)(2)(3)(4)(6)(7)

1 0	1 1	5	1 4
1 2	1 3	1 7	1 6

$((0)+(1)+(2)+(3)) + ((7)+(6)) + ((4)+(6))$

$(\bar{x}\bar{y}\bar{z} + \bar{x}\bar{y}z + \bar{x}y\bar{z} + \bar{x}yz) + (xyz + xy\bar{z}) + (x\bar{y}\bar{z} + x\bar{y}z)$

$\bar{x} + xy + x\bar{z}x \Rightarrow \boxed{\bar{x} + xy + x\bar{z}}$ → f - Q6

$\bar{I}_1 + I_1 \cdot I_2 + I_1 \cdot \bar{I}_3$

(g) se aprinde pentru (0)(2)(3)(4)(7) !

1 0	1	5	1 4
1 2	1 3	1 7	6

$((0)+(4)) + ((2)+(3)) + ((3)+(7))$

$(\bar{x}\bar{y}\bar{z} + x\bar{y}\bar{z}) + (\bar{x}y\bar{z} + \bar{x}yz) + (\bar{x}yz + xyz)$

$\boxed{\bar{y}\bar{z} + \bar{x}y + yz}$ → (g) Q7

$\bar{I}_2 \cdot \bar{I}_3 + \bar{I}_1 \cdot I_2 + I_2 \cdot I_3$

"+" sau

"·" și

"—" negat = break contact