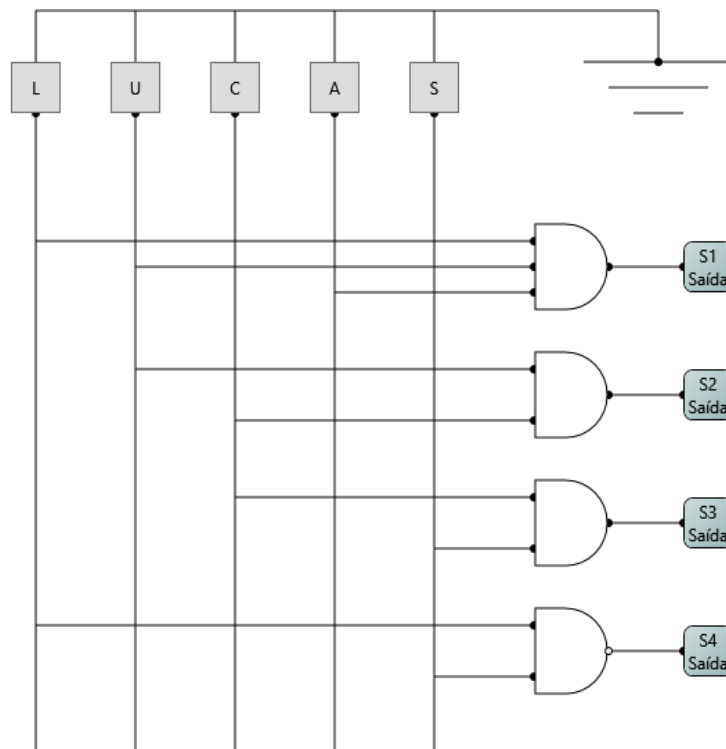







QUESTÃO 01:

	S1	S2	S3	S4
L	1	0	0	1
U	1	1	0	0
C	0	1	1	0
A	1	0	0	0
S	0	0	1	1



QUESTÃO 02:

Caractere	Display	Código			
		S1	S2	S3	S4
L		1	0	0	1
U		1	1	0	0
C		0	1	1	0
A		1	0	0	0
S		0	0	1	1

Código para 14 segmentos

	A	B	C	D	E	F	G1	G2	H	I	J	K	L	M
L	0	0	0	1	1	1	0	0	0	0	0	0	0	0
U	0	1	1	1	1	1	0	0	0	0	0	0	0	0
C	1	0	0	1	1	1	0	0	0	0	0	0	0	0
A	1	1	1	0	1	1	1	1	0	0	0	0	0	0
S	1	0	1	1	0	1	1	1	0	0	0	0	0	0

- Segmentos escolhidos para fazer o mapa de Karnaugh e desenhar o circuito:

A; B; C; D; G1

Mapa de Karnaugh para o segmento A:

Obs: S1 e S2 se referem à vertical; S3 e S4 se referem à horizontal

S1 S2 S3 S4	00	01	11	10
00	X	X	1	X
01	X	X	X	1
11	X	X	X	X
10	1	X	X	X

Expressão simplificada (Segmento A):

$$\overline{S1}.\overline{S2}.S3.S4 + \overline{S1}.S2.S3.\overline{S4} + S1.\overline{S2}.S3.\overline{S4}$$

Mapa de Karnaugh para o segmento B:

S1 S2 S3 S4	00	01	11	10
00	X	X	X	X
01	X	X	X	X
11	1	X	X	X
10	1	X	X	X

Expressão simplificada (Segmento B):

$$\overline{S1}.\overline{S3}.S4$$

Mapa de Karnaugh para o segmento C:

S1 S2 S3 S4	00	01	11	10
00	X	X	1	X
01	X	X	X	X
11	1	X	X	X
10	1	X	X	X

Expressão simplificada (Segmento C):

$$\overline{S1.S3.S4} + \overline{S1.S2.S3.S4}$$

Mapa de Karnaugh para o segmento D:

S1 S2 S3 S4	00	01	11	10
00			1	
01				1
11	1			
10		1		

Expressão simplificada (Segmento D):

$$\overline{S1.S2.S3.S4} + \overline{S1.S2.S3.S4} + \overline{S1.S2.S3.S4} + \overline{S1.S2.S3.S4}$$

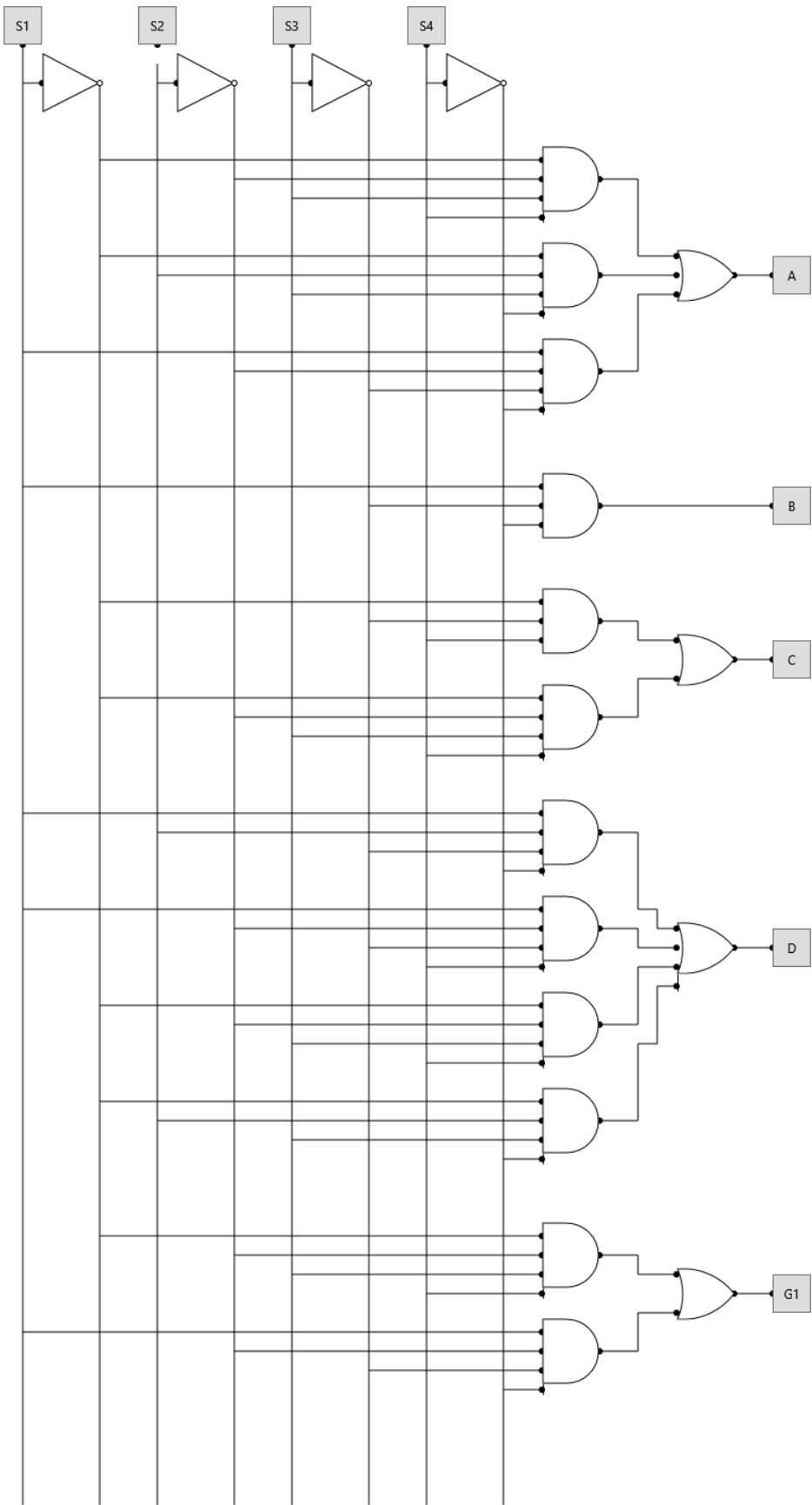
Mapa de Karnaugh para o segmento G1:

S1 S2 S3 S4	00	01	11	10
00	X	X	1	X
01	X	X	X	X
11	X	X	X	X
10	1	X	X	X

Expressão simplificada (Segmento G1):

$$\overline{S1}.\overline{S2}.\overline{S3}.\overline{S4} + \overline{S1}.\overline{S2}.\overline{S3}.S4$$

Circuito:



QUESTÃO 03:

1 1

1 1 0 1

+ 0 1 1 0

1 0 0 1 1

