

01

$$'COST = \$72' \Rightarrow (434F53543D243732)_h$$

02

$$(01010011010101000100111101010000)_b = (53544F50)_h = 'STOP'$$

03

a.

Codificador

b.

Codificador

c.

Decodificador

d.

Decodificador

04

A	B	C	D	SARDA ATIVA
0	0	0	0	S_0
0	0	0	1	S_1
0	0	1	0	S_2
0	0	1	1	S_3

A	B	C	D	SARDA ATIVA
0	1	0	0	S_4
0	1	0	1	S_5
0	1	1	0	S_6
0	1	1	1	S_7

A	B	C	D	SARDA ATIVA
1	0	0	0	S_8
1	0	0	1	S_9
1	0	1	0	X
1	0	1	1	X

A	B	C	D	SARDA ATIVA
1	1	0	0	X
1	1	0	1	X
1	1	1	0	X
1	1	1	1	X

AB \ CD	00	01	11	10
00	1	0	0	0
01	0	0	0	0
11	X	X	X	X
10	0	0	X	X

$$S_0 = \bar{A}\bar{B}\bar{C}\bar{D}$$

AB \ CD	00	01	11	10
00	0	1	0	0
01	0	0	0	0
11	X	X	X	X
10	0	0	X	X

$$S_1 = \bar{A}\bar{B}CD$$

AB \ CD	00	01	11	10
00	0	0	0	1
01	0	0	0	0
11	X	X	X	X
10	0	0	X	X

$$S_2 = \bar{B}CD$$

AB \ CD	00	01	11	10
00	0	0	1	0
01	0	0	0	0
11	X	X	X	X
10	0	0	X	X

$$S_3 = \bar{B}CD$$

AB \ CD	00	01	11	10
00	0	0	0	0
01	1	0	0	0
11	x	x	x	x
10	0	0	x	x

$$S_4 = B\bar{C}\bar{D}$$

AB \ CD	00	01	11	10
00	0	0	0	0
01	0	1	0	0
11	x	x	x	x
10	0	0	x	x

$$S_5 = B\bar{C}D$$

AB \ CD	00	01	11	10
00	0	0	0	0
01	0	0	0	1
11	x	x	x	x
10	0	0	x	x

$$S_6 = B\bar{C}\bar{D}$$

AB \ CD	00	01	11	10
00	0	0	0	0
01	0	0	1	0
11	x	x	x	x
10	0	0	x	x

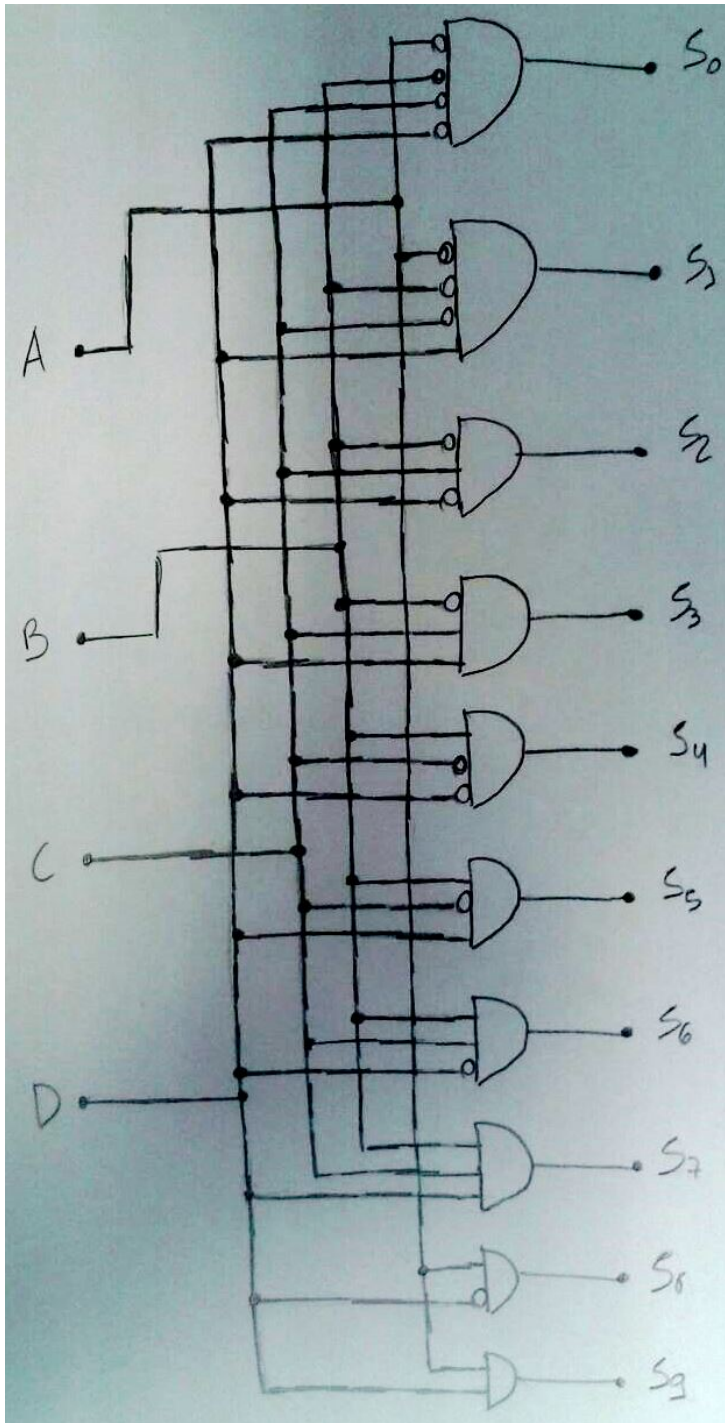
$$S_7 = BCD$$

AB \ CD	00	01	11	10
00	0	0	0	0
01	0	0	0	0
11	x	x	x	x
10	1	0	x	x

$$S_8 = A\bar{D}$$

AB \ CD	00	01	11	10
00	0	0	0	0
01	0	0	0	0
11	x	x	x	x
10	0	1	x	x

$$S_9 = AD$$



05

AB \ CD	00	01	11	10
00	0	0	0	0
01	0	1	1	1
11	X	X	X	X
10	1	1	X	X

$$S_3 = A + BD + BC$$

AB \ CD	00	01	11	10
00	0	1	1	1
01	1	0	0	0
11	X	X	X	X
10	0	1	X	X

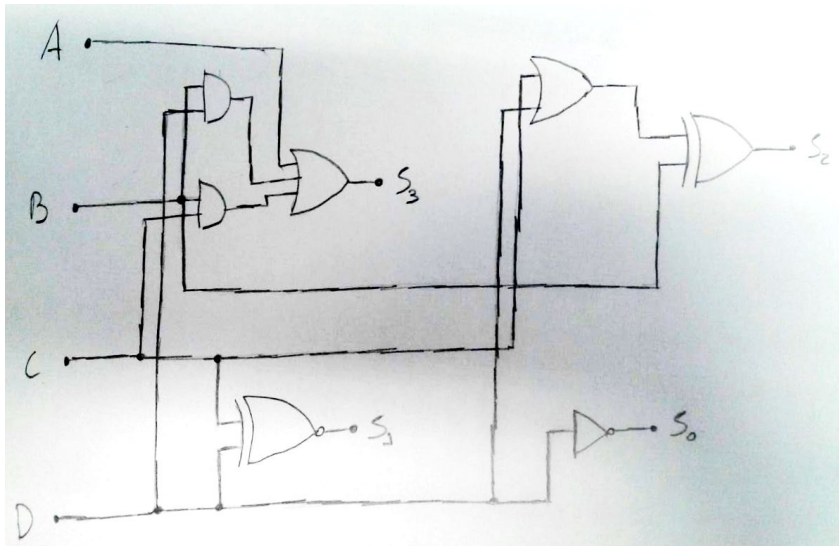
$$S_2 = \overline{BCD} + \overline{BD} + \overline{BC} = \overline{BCD} + \overline{B}(C + D) = \overline{BC} + \overline{D} + \overline{B}(C + D) = B \oplus (C + D)$$

AB \ CD	00	01	11	10
00	1	0	1	0
01	1	0	1	0
11	X	X	X	X
10	1	0	X	X

$$S_1 = \overline{CD} + CD = \overline{C} \oplus \overline{D}$$

AB \ CD	00	01	11	10
00	1	0	0	1
01	1	0	0	1
11	X	X	X	X
10	1	0	X	X

$$S_0 = \overline{D}$$



06

G_3	G_2	G_1	G_0	B_3	B_2	B_1	B_0
0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	1
0	0	1	1	0	0	1	0
0	0	1	0	0	0	1	1

G_3	G_2	G_1	G_0	B_3	B_2	B_1	B_0
0	1	1	0	0	1	0	0
0	1	1	1	0	1	0	1
0	1	0	1	0	1	1	0
0	1	0	0	0	1	1	1

G_3	G_2	G_1	G_0	B_3	B_2	B_1	B_0
1	1	0	0	1	0	0	0
1	1	0	1	1	0	0	1
1	1	1	1	1	0	1	0
1	1	1	0	1	0	1	1

G_3	G_2	G_1	G_0	B_3	B_2	B_1	B_0
1	0	1	0	1	1	0	0
1	0	1	1	1	1	0	1
1	0	0	1	1	1	1	0
1	0	0	0	1	1	1	1

G_3G_2	00	01	11	10
00	0	0	0	0
01	0	0	0	0
11	1	1	1	1
10	1	1	1	1

$$B_3 = G_3$$

$G_3 \backslash G_2$	G_1	G_0	G_1	G_0
G_3	0	0	0	0
\bar{G}_3	1	1	1	1
G_3	0	0	0	0
\bar{G}_3	1	1	1	1

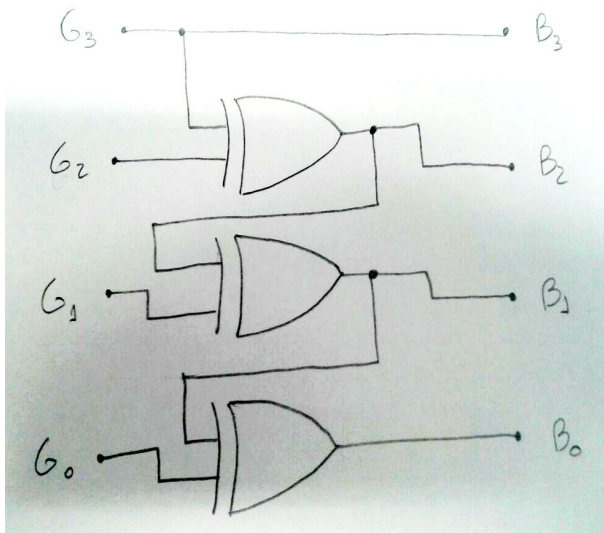
$$B_2 = \bar{G}_3 G_2 + G_3 \bar{G}_2 = G_3 \oplus G_2$$

$G_3 \backslash G_2$	G_1	G_0	G_1	G_0
G_3	0	0	1	1
\bar{G}_3	1	1	0	0
G_3	0	0	1	1
\bar{G}_3	1	1	0	0

$$B_1 = \bar{G}_3 \bar{G}_2 G_1 + \bar{G}_3 G_2 \bar{G}_1 + G_3 G_2 G_1 + G_3 \bar{G}_2 \bar{G}_1 = \bar{G}_3 (G_2 \oplus G_1) + G_3 (\bar{G}_2 \oplus \bar{G}_1) = G_3 \oplus G_2 \oplus G_1$$

$G_3 \backslash G_2$	G_1	G_0	G_1	G_0
G_3	0	1	0	1
\bar{G}_3	1	0	1	0
G_3	0	1	0	1
\bar{G}_3	1	0	1	0

$$B_0 = \bar{G}_3 \bar{G}_2 \bar{G}_1 G_0 + \bar{G}_3 \bar{G}_2 G_1 \bar{G}_0 + \bar{G}_3 G_2 \bar{G}_1 \bar{G}_0 + \bar{G}_3 G_2 G_1 G_0 + G_3 \bar{G}_2 \bar{G}_1 G_0 + G_3 \bar{G}_2 G_1 \bar{G}_0 + G_3 G_2 \bar{G}_1 \bar{G}_0 + G_3 G_2 G_1 G_0 = \bar{G}_3 \bar{G}_2 (G_1 \oplus G_0) + \bar{G}_3 G_2 (\bar{G}_1 \oplus \bar{G}_0) + G_3 \bar{G}_2 (G_1 \oplus G_0) + G_3 G_2 (\bar{G}_1 \oplus \bar{G}_0) = (G_1 \oplus G_0)(\bar{G}_3 \oplus G_2) + (\bar{G}_1 \oplus \bar{G}_0)(G_3 \oplus G_2) = G_3 \oplus G_2 \oplus G_1 \oplus G_0$$



07

A solução dessa questão se encontra a partir do slide 23 da Aula 7.