

Questão 01

1

$$S = \bar{A}BC\bar{D} + ABC\bar{D} + AB\bar{C}\bar{D} + \bar{A}BCD + AB\bar{C}D$$

$$BIN = 0110 \quad 1110 \quad 1100 \quad 0111 \quad 1111$$

$\begin{matrix} CD \\ AB \end{matrix}$	00	01	11	10
00				
01			1	1
11	1		1	1
10				

$$AB\bar{C}\bar{D} + BC$$

Questão 02

11	2		1
10			

②

0	=	00
1	=	01
2	=	10
3	=	11

msb = x_1
lsb = x_0

Nº	x_1	x_0		$\bar{x}_0 + \bar{x}_1$	$x_0 + \bar{x}_1$	$x_0 x_1$	$\bar{x}_0 x_1$	$x_0 \bar{x}_1$
0	0	0	0	11	101	000	1000	0100
1	0	1	0	10	111	001	0000	1111
2	1	0	1	01	100	010	0111	0000
3	1	1	0	00	110	111	0100	1000

x x x x x

d) (not x_0) and x_1

$\bar{x}_0 x_1$

Questão 03

G_1				
G_2				
	0h às 10h	10h às 16h	16h às 24h	
				Impossível

T_{16}	T_{10}	Horário
0	0	(0h - 10h)
0	1	(10h - 16h)
1	1	(16h - 24h)
1	0	Impossível

G_1 e G_2 p/ após às 16h. ✓

G_1 e G_2 p/ 10h às 16h. ✓

✓
 $(G_1 \cdot G_2) + \overline{T_{16}} \cdot \overline{T_{10}} (G_1 + G_2)$

$G_1 G_2 + (G_1 + G_2)$ // precisa conter

a) $\overline{T_{16}} \cdot \overline{T_{10}} \cdot (G_1 + G_2)$

b) $\overline{T_{16}} \cdot \overline{T_{10}} \cdot (G_1 + G_2)$ ✓

c) $\overline{T_{16}} \cdot \overline{T_{10}} \cdot (G_1 + G_2)$ X

d) $\overline{T_{16}} \cdot \overline{T_{10}} (G_1 G_2)$ X

e) não satisfaz p/ sem falha

A) $G_1 G_2 + \overline{T_{16}} \overline{T_{10}} \cdot (G_1 + G_2)$ ✓

B) $G_1 G_2 + \overline{T_{16}} \overline{T_{10}} \cdot G_1 \cdot G_2$ X

C) $G_1 G_2 + \overline{T_{16}} \overline{T_{10}} \cdot (G_1 + G_2)$ ✓

D) $G_1 G_2 + \overline{T_{16}} \overline{T_{10}} \cdot (G_1 + G_2) + \overline{T_{16}} \cdot \overline{T_{10}} \cdot (G_1 + G_2)$ ✓

E) $G_1 G_2 \cdot \overline{T_{16}} \overline{T_{10}} + \overline{T_{16}} \cdot \overline{T_{10}} (G_1 + G_2)$ ✓

T_{16}	T_{10}					
0	0	0	0	0	1	0 0 1
0	1	1	1	0	0	1 1 1
1	0	0	0	0	0	0 0 1
1	1	1	1	1	1	0 0 1