

LISTA 7

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a) $S = \bar{A}\bar{B} + \bar{A}B + A\bar{B}$

	\bar{B}	B
\bar{A}	1	1
A	1	0

$S = \bar{A} + \bar{B}$ (SIMPLIFICADO)

b) $S = \bar{A}\bar{B} + A\bar{B} + AB$

	\bar{B}	B
\bar{A}	1	0
A	1	1

$S = A + \bar{B}$ (SIMPLIFICADO)

c) $S = \bar{A}\bar{B} + \bar{A}B$

	\bar{B}	B
\bar{A}	1	1
A	0	0

$S = \bar{A}$ (SIMPLIFICADO)

d) $S = \bar{A}\bar{B}\bar{C} + \bar{A}B\bar{C} + A\bar{B}\bar{C} + A\bar{B}C + A\bar{B}\bar{C}$

	\bar{B}	B	
\bar{A}	1	0	1
A	1	0	1
	\bar{C}	C	\bar{C}

$S = A\bar{B} + \bar{C}$ (SIMP.)

2) $S = \bar{A}\bar{B}\bar{C} + \bar{A}\bar{B}C + \bar{A}B\bar{C} + A\bar{B}C + AB\bar{C} + ABC$

	\bar{B}	B
\bar{A}	1 1	0 1
A	0 1 1	1
	\bar{C}	C

$S = \bar{A}\bar{B} + B\bar{C} + AC$

1) $S = \bar{A}\bar{B}\bar{C}D + \bar{A}\bar{B}CD + \bar{A}B\bar{C}\bar{D} + \bar{A}B\bar{C}D + \bar{A}BC\bar{D} + \bar{A}BCD$
 $+ A\bar{B}C\bar{D} + ABCD$

	\bar{C}	C	
\bar{A}	0	1	\bar{B}
A	1	1	B
	\bar{D}	D	\bar{B}

$S = \bar{A}\bar{B}C\bar{D} + BCD + \bar{A}D + \bar{A}B$

2)

$S = \bar{A}\bar{B}\bar{C}\bar{D} + \bar{A}\bar{B}\bar{C}D + \bar{A}\bar{B}C\bar{D} + \bar{A}\bar{B}CD + \bar{A}B\bar{C}\bar{D} + \bar{A}B\bar{C}D + \bar{A}BC\bar{D} + \bar{A}BCD$

A	B	C	D	S
0	0	0	0	1
0	0	0	1	1
0	0	1	0	0
0	0	1	1	1
0	1	0	0	0
0	1	0	1	1
0	1	1	0	1
0	1	1	1	0

1	0	0	0	0
1	0	0	1	0
1	0	1	0	1
1	0	1	1	1
1	1	0	0	0
1	1	0	1	0
1	1	1	0	0
1	1	1	1	1

	\bar{C}	C	
\bar{A}	1	1	\bar{B}
	0	1	B
A	0	0	
	0	0	\bar{B}
	\bar{D}	D	\bar{D}

$$S = \bar{A}BC\bar{D} + \bar{A}\bar{B}\bar{C} + \bar{A}\bar{B}D + \bar{A}CD + A\bar{B}C + ACD$$

$$\begin{aligned}
 Q) S = & \overset{00000}{\bar{A}\bar{B}\bar{C}\bar{D}\bar{E}} + \overset{00001}{\bar{A}\bar{B}\bar{C}\bar{D}E} + \overset{00100}{\bar{A}\bar{B}C\bar{D}\bar{E}} + \overset{00101}{\bar{A}\bar{B}C\bar{D}E} + \overset{01000}{\bar{A}B\bar{C}\bar{D}\bar{E}} \\
 & + \overset{10000}{A\bar{B}\bar{C}\bar{D}\bar{E}} + \overset{10001}{A\bar{B}\bar{C}\bar{D}E} + \overset{10100}{A\bar{B}C\bar{D}\bar{E}} + \overset{10101}{A\bar{B}C\bar{D}E} + \overset{10110}{A\bar{B}CD\bar{E}} + \overset{11000}{AB\bar{C}\bar{D}\bar{E}} \\
 & + \overset{11010}{AB\bar{C}\bar{D}E} + \overset{11011}{AB\bar{C}DE} + \overset{11100}{ABC\bar{D}\bar{E}} + \overset{11111}{ABCDE}
 \end{aligned}$$

A	B	C	D	E	S
0	0	0	0	0	1
0	0	0	0	1	1
0	0	0	1	0	0
0	0	0	1	1	0
0	0	1	0	0	1
0	0	1	0	1	1
0	0	1	1	0	0
0	0	1	1	1	0

0	1	0	0	0	1
0	1	0	0	1	0
0	1	0	1	0	0
0	1	0	1	1	0
0	1	1	0	0	0
0	1	1	0	1	0
0	1	1	1	0	0
0	1	1	1	1	0
1	0	0	0	0	1
1	0	0	0	1	1
1	0	0	1	0	0
1	0	0	1	1	0
1	0	1	0	0	1
1	0	1	0	1	1
1	0	1	1	0	1
1	0	1	1	1	0
1	1	0	0	0	1
1	1	0	0	1	0
1	1	0	1	0	1
1	1	1	0	0	0
1	1	1	0	1	0
1	1	1	1	0	1
1	1	1	1	1	1

		A					
		\bar{D}		D			
\bar{B}	\bar{A}	1	1	0	0	\bar{C}	
	A	1	1	0	0	C	
B	\bar{A}	0	0	0	0	\bar{C}	
	A	0	0	0	0	C	

		A					
		\bar{D}		D			
\bar{B}	\bar{A}	1	1	0	0	\bar{C}	
	A	1	1	0	1	C	
B	\bar{A}	0	0	1	1	\bar{C}	
	A	1	0	1	1	C	

$$S = ACD\bar{E} + \bar{C}\bar{D}\bar{E} + ABD + \bar{B}\bar{D}$$

③

	\bar{B}	B
\bar{A}	1	1
A	1	1

$$S = \bar{B} + C$$

Exercícios para Fixação Extraclasse

④ $S = \bar{A}\bar{B}\bar{C} + \bar{A}\bar{B}C + \bar{A}BC + A\bar{B}C + ABC$

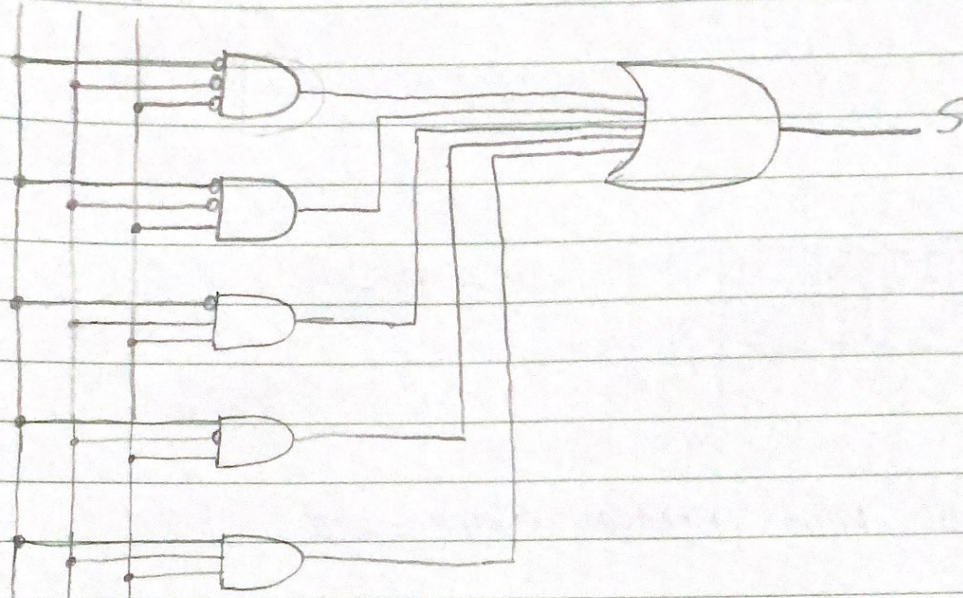
000 001 011 101 111

a)

A	B	C	S
0	0	0	1
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

Q.)

A B C



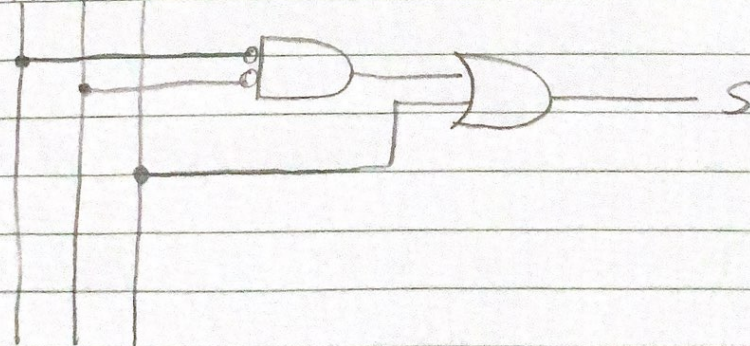
c)

	\bar{B}	B
\bar{A}	1	1
A	0	1
\bar{C}	C	\bar{C}

$$S = \bar{A}\bar{B} + C$$

d)

A B C



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MAPA DE S1:

	\bar{B}	B
\bar{A}	1 1	1 1
A	0 1	1 0
	\bar{C}	C

$$S = \bar{A} + C$$

MAPA DE S2:

	\bar{B}	B
\bar{A}	1 1	0 1
A	0 1	1 1
	\bar{C}	C

$$S = \bar{A}\bar{B} + B\bar{C} + AC$$

MAPA DE S3:

	\bar{B}	B
\bar{A}	1 0	1 1
A	0 1	0 1
	\bar{C}	C

$$S = A\bar{B}C + \bar{A}\bar{C} + \bar{A}B + B\bar{C}$$

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	\bar{D}	D	\bar{A}	A
\bar{B}	1 0	1 0	\bar{C}	
	1 1	1 1	C	
B	1 1	0 0	\bar{C}	
	0 0	0 1	C	
	\bar{E}	E	\bar{B}	B

	\bar{D}	D	\bar{C}	C
\bar{B}	0 0	1 0	\bar{E}	
	1 1	1 1	E	
B	0 0	0 0	\bar{E}	
	0 0	1 1	E	
	\bar{E}	E	\bar{B}	B

$$S = \bar{A}\bar{B}\bar{D}\bar{E} + B\bar{C}D\bar{E} + A\bar{B}\bar{C}D + \bar{A}C\bar{D} + \bar{B}DE + \bar{B}C$$

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MAPA DE S1°

	\bar{C}	C	
\bar{A}	X	0	X
	0	1	0
A	0	X	1
	X	0	1
	\bar{D}	D	\bar{D}

$$S_1 = BD + AC$$

MAPA DE S2°

	\bar{C}	C	
\bar{A}	1	1	0
	1	1	1
A	X	X	0
	X	X	X
	\bar{D}	D	\bar{D}

$$S_2 = \bar{A}B + \bar{C} + \bar{D}$$