

Lista 9. mapa de karnaugh. Parique Augusto.

①

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

$S = \bar{B} + A$

②

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

$S = A'$

②^{a)}

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

$B'C' B'C BC BC'$

A'	1	0	1	1
A	1	1	1	0

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

$B'C' B'C BC BC'$

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

$S = B' + C'$

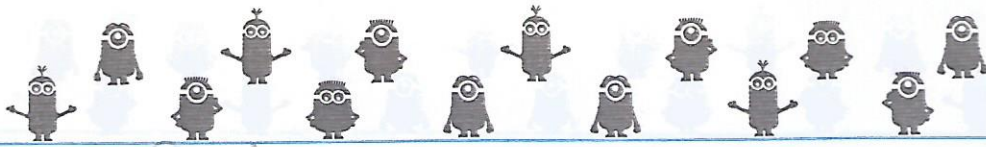
c)

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

$B'C' B'C BC BC'$

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

$S = B'C + AC'$



③ A B C D S

1	0	0	0	0	1
2	0	0	0	1	1
3	0	0	1	0	1
4	0	0	1	1	1
5	0	1	0	0	1
6	0	1	0	1	0
7	0	1	1	0	0
8	0	1	1	1	1
9	1	0	0	0	1
10	1	0	0	1	1
11	1	0	1	0	1
12	1	0	1	1	1
13	1	1	0	0	1
14	1	1	0	1	0
15	1	1	1	0	0
16	1	1	1	1	1

$CD' C'D CD CD'$

$A'B' 1 1 1 1$

$A'B 1 0 1 0$

$AB 1 0 1 0$

$AB' 1 1 1 1$

$S = B + CD + CD'$

b) 1 B C D S

0	0	0	0	1
0	0	0	1	X
0	0	1	0	X
0	0	1	1	X
0	1	0	0	1
0	1	0	1	0
0	1	1	0	0
0	1	1	1	X
1	0	0	0	X
1	0	0	1	1
1	0	1	0	X
1	0	1	1	1
1	1	0	0	X
1	1	0	1	0
1	1	1	0	0
1	1	1	1	X

$A'B' 1 \infty \infty \infty$

$A'B 1 0 \infty \infty$

$AB \infty \infty 0 1$

$AB' \infty 1 1 \infty$

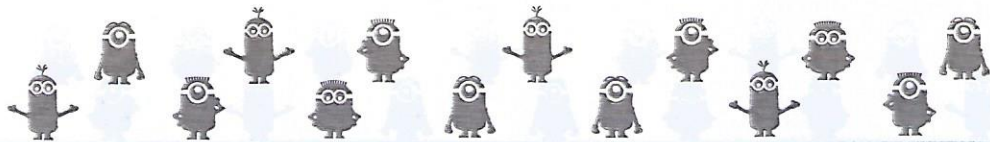
$CD' C'D CD CD'$

\longleftrightarrow

$S = D' + B'$

$1 1 1 0 1$

$1 1 1 1 0$



③ c) A B C D S $\bar{C}\bar{D}\bar{C}D\bar{C}D\bar{C}\bar{D}$

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

$$S = \bar{B}\bar{D} + BD + AC$$