Arquitectura de computador - laboratorio 1

1)

Cin	Cout
0	1
1	0

$\rightarrow$

$\widetilde{X_0}$	$\widetilde{X_1}$	$\widetilde{X_2}$	$\widetilde{X_3}$	$\widetilde{X_4}$	$\widetilde{X_5}$	$\widetilde{X_6}$	$\widetilde{X_7}$

2)

A	B	C	D	Bout
0	0	0	0	0
0	0	1	1	1
0	1	0	1	1
0	1	1	0	1
1	0	0	1	0
1	0	1	0	0
1	1	0	0	0
1	1	1	1	1

D:

A \ BC	00	01	11	10
0	0	1	0	1
1	1	0	1	0

$$A \oplus B \oplus C$$

Bout

A \ BC	00	01	11	10
0	0	1	1	1
1	0	0	1	0

$$BC + \tilde{A}C + B\tilde{A}$$

3)

	inputs			outputs
d	a	b	Out
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0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

d \ ab	00	01	11	10
0	0	1	1	0
1	0	0	1	1

$$Z = \tilde{d}\, b + d\, a$$

4)

a	b	c	d	O_2	O_1	O_0
0	0	0	0	0	0	0
1	0	0	0	0	0	1
0	1	0	0	0	1	0
0	0	1	0	0	1	1
0	0	0	1	1	0	0

$$O_0 = a + c$$

$$O_1 = b + c$$

$$O_2 = d$$