

José Alejandro Rodríguez Porras 19131

Laboratorio 2

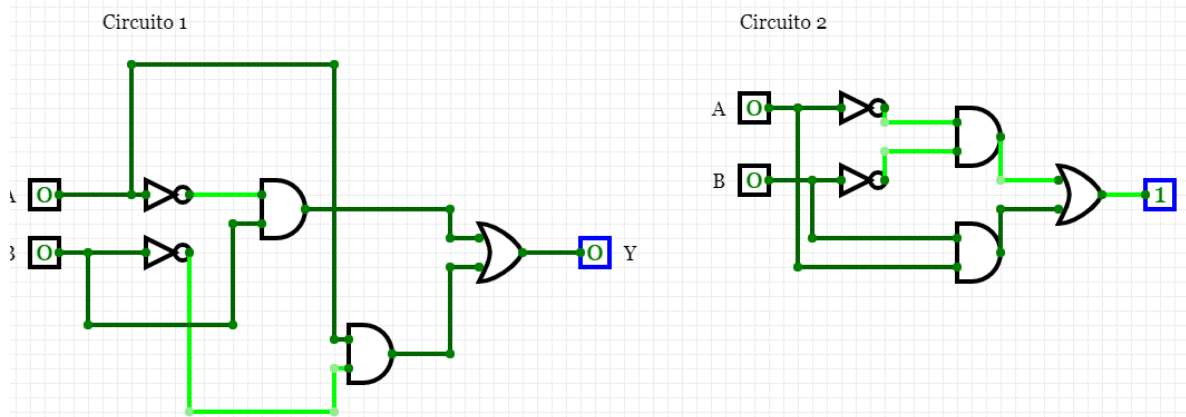
Problema 1

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Carné: 19131

Laboratorio # 2									
Ejercicio # 1								(1)	(2)
$A \cdot B$	$\bar{A} \cdot \bar{B}$	$\bar{A} \cdot B$	$A \cdot \bar{B}$	$\bar{A} \cdot \bar{B}$	$A \cdot B$	$(\bar{A} \cdot B) + (A \cdot \bar{B})$	$(\bar{A} \cdot B) + (A \cdot B)$		
0 0	1 1	0 0	0 0	1 1	0 0	0	0	0	1
1 0	0 1	0 1	1 0	0 0	0 0	1	1	1	0
0 1	1 0	1 0	0 1	0 0	0 0	1	1	1	0
1 1	0 0	0 0	0 0	0 0	1 1	0	0	0	1

Problema 2

Ejercicio 2



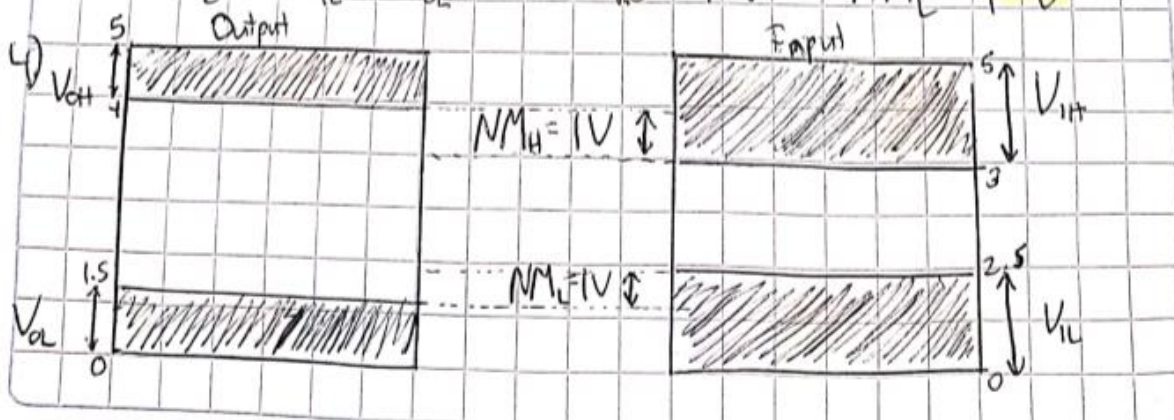
Problema 3

Ejercicio #3

1) Una compuerta lógica de negación NOT

2) $V_{IL} = 0 - 2.5V$ $V_{IH} = 3 - 5V$
 $V_{OL} = 0 - 1.5V$ $V_{OH} = 4 - 5V$

3) $NM_H = V_{OH} - V_{IH} = 4 - 3 = 1V$ $NM_H = 1V$
 $NM_L = V_{IL} - V_{OL} = 2.5 - 1.5 = 1V$ $NM_L = 1V$



Problema 4

Ejercicio #4

$$Y_1 = (A \cdot B) + \overline{(C + D)}$$

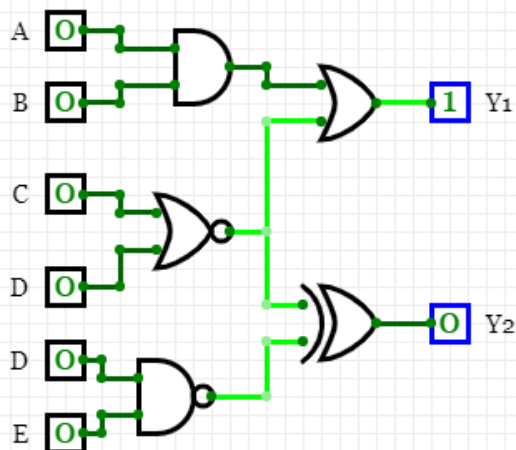
$$Y_2 = \overline{(E \cdot F)} \oplus \overline{(C + D)}$$

Problema 5

Ejercicio				#5		$Y1 = [(A \cdot C \cdot D) \oplus (\bar{B})] \oplus [(A+C) + (\bar{B}) + (A \cdot C \cdot D) \oplus (\bar{B})]$				
A	B	C	D	$A \cdot C \cdot D$	$A+C$	\bar{B}	$(A \cdot C \cdot D) \oplus \bar{B}$	$(A+C) + \bar{B} + (A \cdot C \cdot D) \oplus \bar{B}$	Y	I
0	0	0	0	0	0	1	1	1	1	
1	0	0	0	0	1	1	1	1	1	
0	1	0	0	0	0	0	0	0	1	
0	0	1	0	0	1	1	1	1	1	
0	0	0	1	0	0	1	1	1	1	
1	1	0	0	0	1	0	0	1	0	
1	0	1	0	0	1	1	1	1	1	
1	0	0	1	0	1	1	1	1	1	
0	1	1	0	0	1	0	0	1	0	
0	1	0	1	0	0	0	0	0	1	
0	0	1	1	0	1	1	1	1	1	
1	1	1	0	0	1	0	0	1	0	
1	1	0	1	0	1	0	0	1	0	
1	0	1	1	1	1	1	0	1	0	
0	1	1	1	0	1	0	0	1	0	
1	1	1	1	1	1	0	1	1	1	

Problema 6

Ejercicio 4



Ejercicio 5

