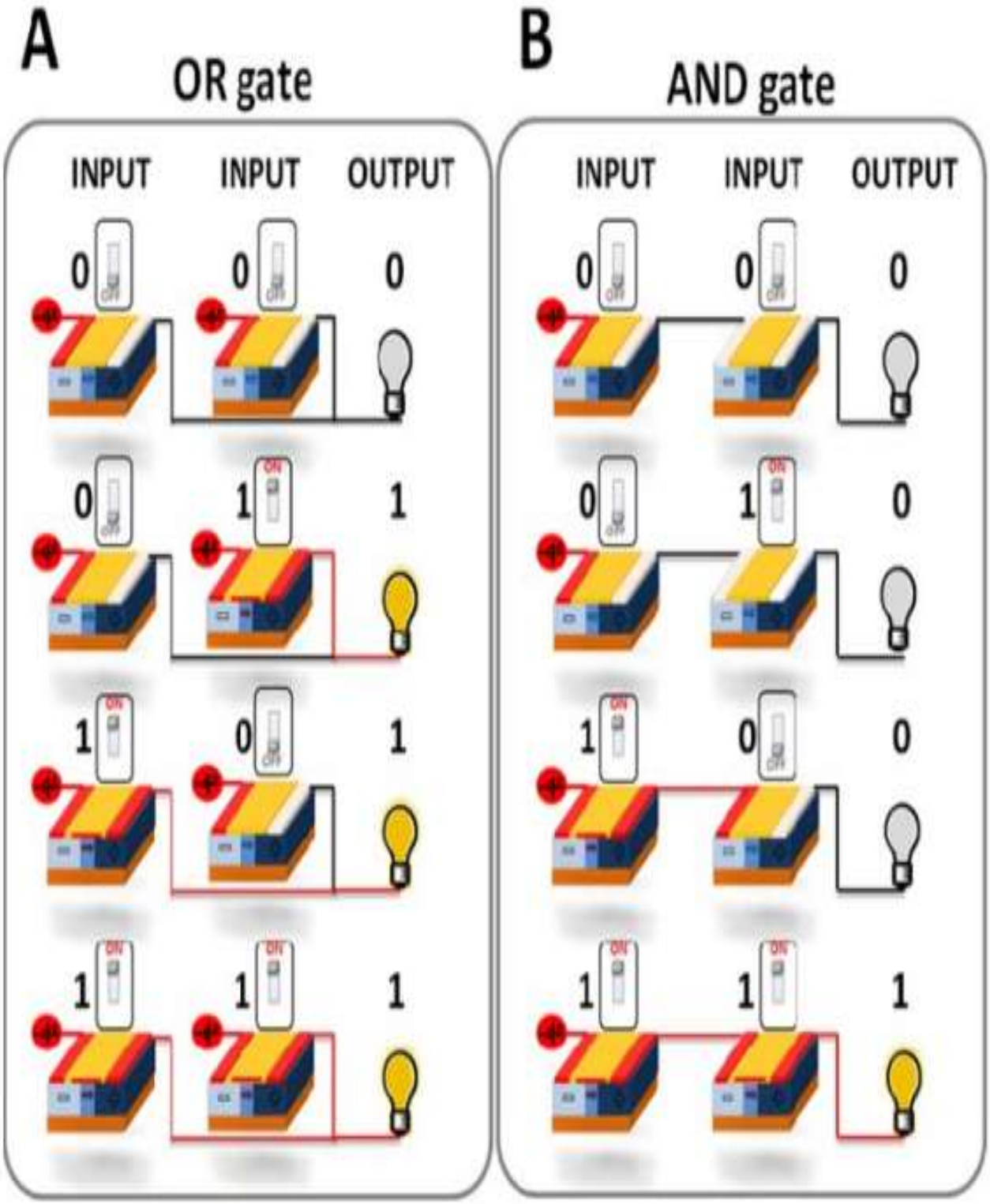
Lec._5

Logic gates (AND, OR, NOT, NAND, NOR, XOR, XNOR)



YES

INPUT	OUTPUT
A	
0	0
1	1

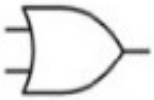
NOT

INPUT	OUTPUT
A	
0	1
1	0

AND

INPUT		OUTPUT
A	B	
0	0	0
1	0	0
0	1	0
1	1	1

OR

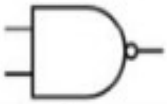


INPUT		OUTPUT
A	B	
0	0	0
1	0	1
0	1	1
1	1	1

XOR

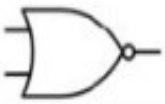
INPUT		OUTPUT
A	B	
0	0	0
1	0	1
0	1	1
1	1	0

NAND



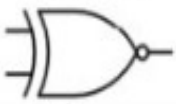
INPUT		OUTPUT
A	B	
0	0	1
1	0	1
0	1	1
1	1	0

NOR



INPUT		OUTPUT
A	B	
0	0	1
1	0	0
0	1	0
1	1	0

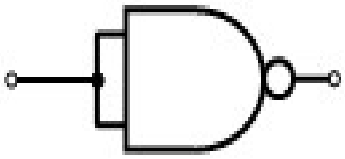
XNOR



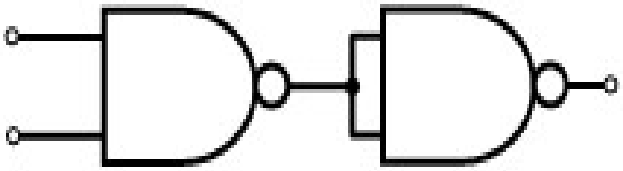
INPUT		OUTPUT
A	B	
0	0	1
1	0	0
0	1	0
1	1	1

Making other logic gates from NAND gates

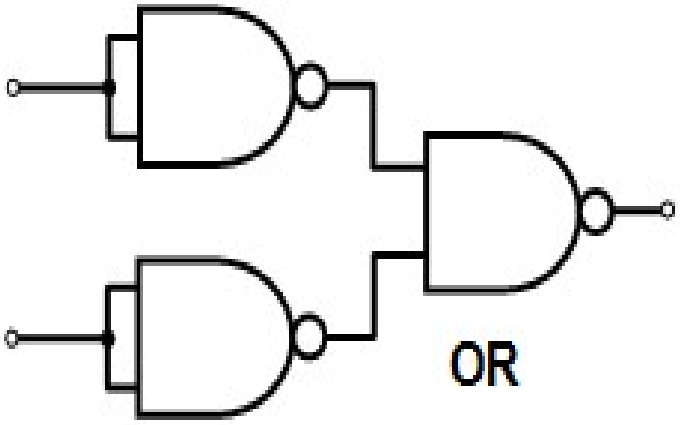
The circuits below show you how to make a NOT, OR, NOR and AND gate using NAND gates.



NOT



AND



OR