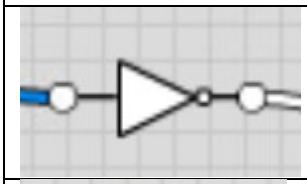
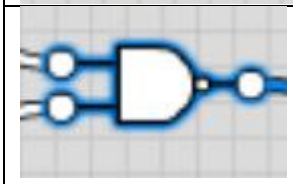
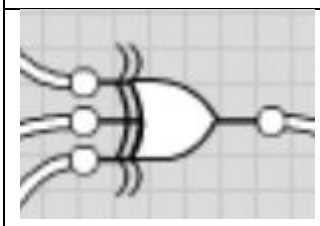
Practical II

Gate	Notation	Truth table
	$\bar{A}$	Input Output 1 0 0 1
	$\overline{AB}$	A B Output 0 0 1 0 1 1 1 0 1 1 1 0
	$\oplus$	A B C Output 0 0 0 0 0 0 1 1 0 1 0 1 0 1 1 0 1 0 0 1 1 0 1 0 1 1 0 0 1 1 1 1

C

A	B	Carry	Sum
0	0	0	0
1	0	0	1
0	1	0	1
1	1	1	0

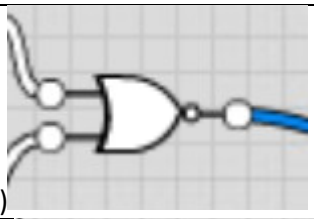
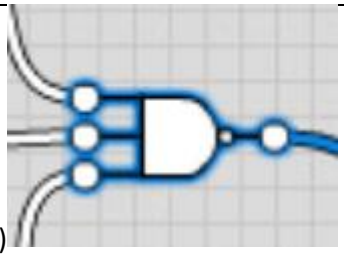
D

B	A	IN	Out0	Out1	Out2	Out3
0	0	0	0	0	0	0
0	0	1	1	0	0	0
0	1	0	0	0	0	0
0	1	0	0	1	0	0
1	0	0	0	0	0	0
1	0	0	0	0	1	0
1	1	0	0	0	0	0
1	1	0	0	0	0	1

2

A)

I) A logic gate in terms of circuitry, is an electronic circuit that use one or more input signals to create an output signal, the output signal is a boolean operation of the input signal.

Gate	Notation	Truth table
i) 	$\overline{A+B}$	Input Output 0 0 1 0 1 0 1 0 0 1 1 0
ii) 	A.B.C	A B C Output 0 0 0 1 0 0 1 1 0 1 0 1 0 1 1 1 1 0 0 1 1 0 1 1 1 1 0 1 1 1 1 0

C)

B	A	x0	x1	x2	x3	X
0	0	0				0
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

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Ripple adder in logic.ly