Name :- Ankit Thaledi

Class :- MCA-B

Std code :- 21711097

NOR gate is also a universal gate similar to NAND gate. Therefore, we can also create all the basic gates employing the NOR gate. The NOR gate is the union of the NOT and OR gate. The output state of NOR gate will be high only when all of the outputs are low. Simply, this gate delivers the complement result of the OR gate.

NOR gate has an output that is normally at logic high and only goes low when any of its inputs are at logic high. The logic NOR gate performs the reverse or complementary operation of the OR gate. It may have two or more inputs and an output.

Symbol :-

Truth table :-

Input		Output
0	0	1
0	1	0
1	0	0
1	1	0

$y = \overline{A + B} = \overline{A}\,\overline{B}$

② NOR Gates :-

$y = \overline{A + B + C} = \overline{A}\,\overline{B}\,\overline{C}$

Inputs			Output
0	0	0	1
0	0	1	0
0	1	0	0
0	1	1	0
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	0

Circuit diagram :-

+5V

R₁ A

R₂ B
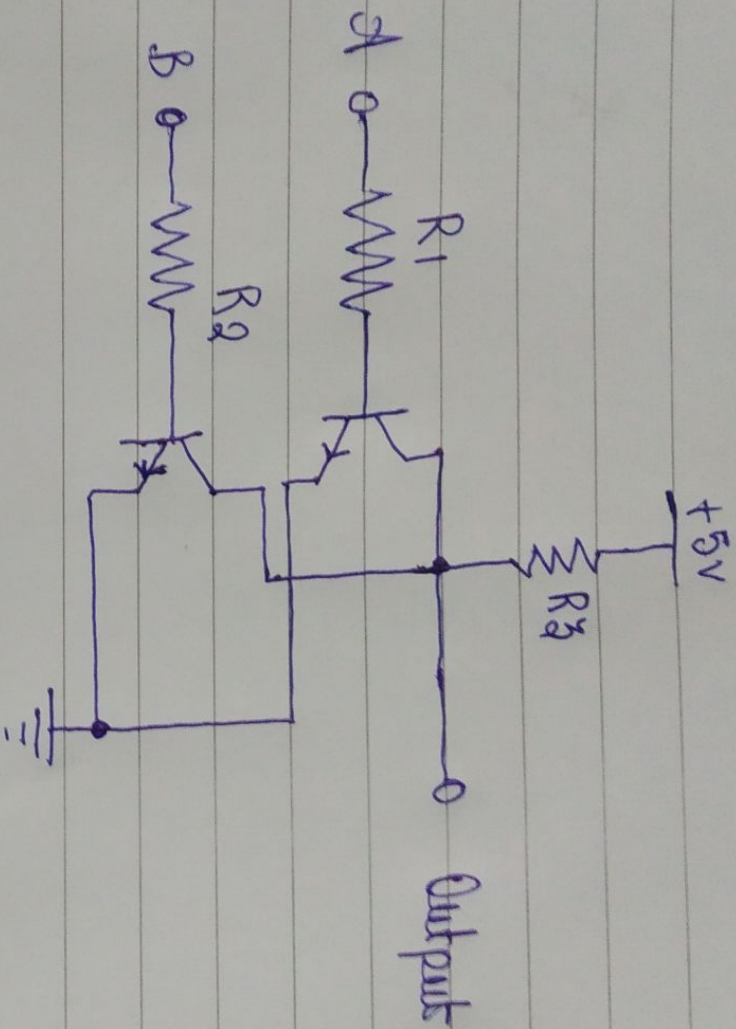
R₃ Output

A	B	Q1	Q2	Output
0	0	OFF	OFF	1
0	1	OFF	ON	0
1	0	ON	OFF	0
1	1	ON	ON	0

$\overline{A} + \overline{A} = \overline{A}$

A $\overline{A}$

$X = \overline{A} + \overline{B} = A.B$

A
B $A.B$