Page No.:

Rayat Shikshan Sanstha's

Name of the college : S.G.M Collage karad.

Subject: Digital Electronics

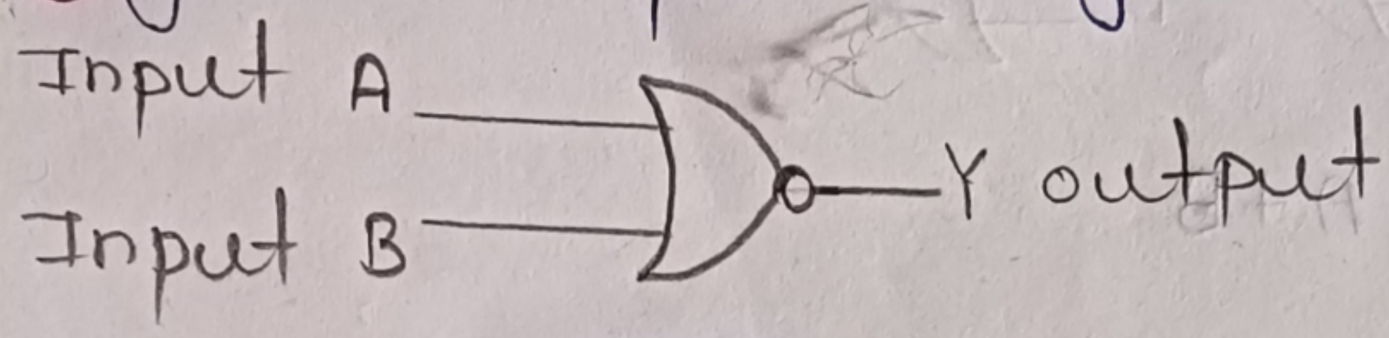
Expt. No. 3 | Name : Pankaj Mane | Class: BCS | Batch: | Roll No.: 12

Date | Title of Expt.: Basic Gates using NOR Gate

Aim :- To study basic gates using NOR gate

NOR Gate :

The NOR gate is NOR-OR circuit which is equivalent to 'OR' gate followed by NOT gate. The output of NOR gate is low if any one of input is high.



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

Truth table :

Input		output
A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

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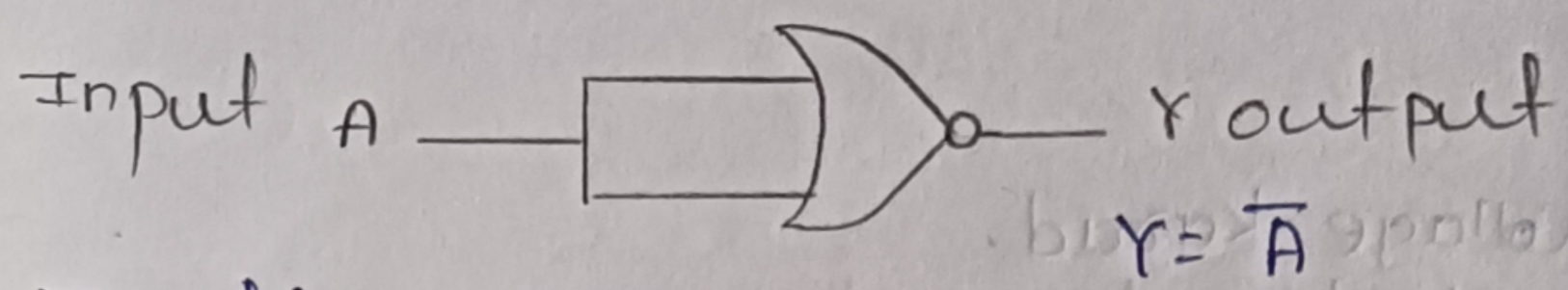
Remarks

2/10/23

Signature

NOR gate is an Universal gate.

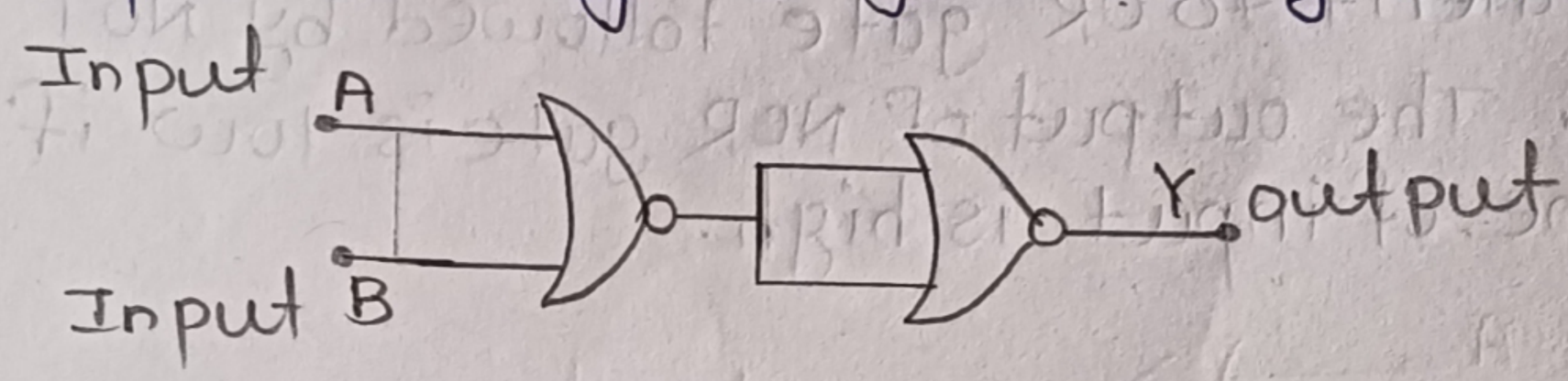
1) Implimenting NOT gate using NOR Gate



Truth table

Input	output
A	Y
0	1
1	0

2) Implimenting OR gate using NOR gate

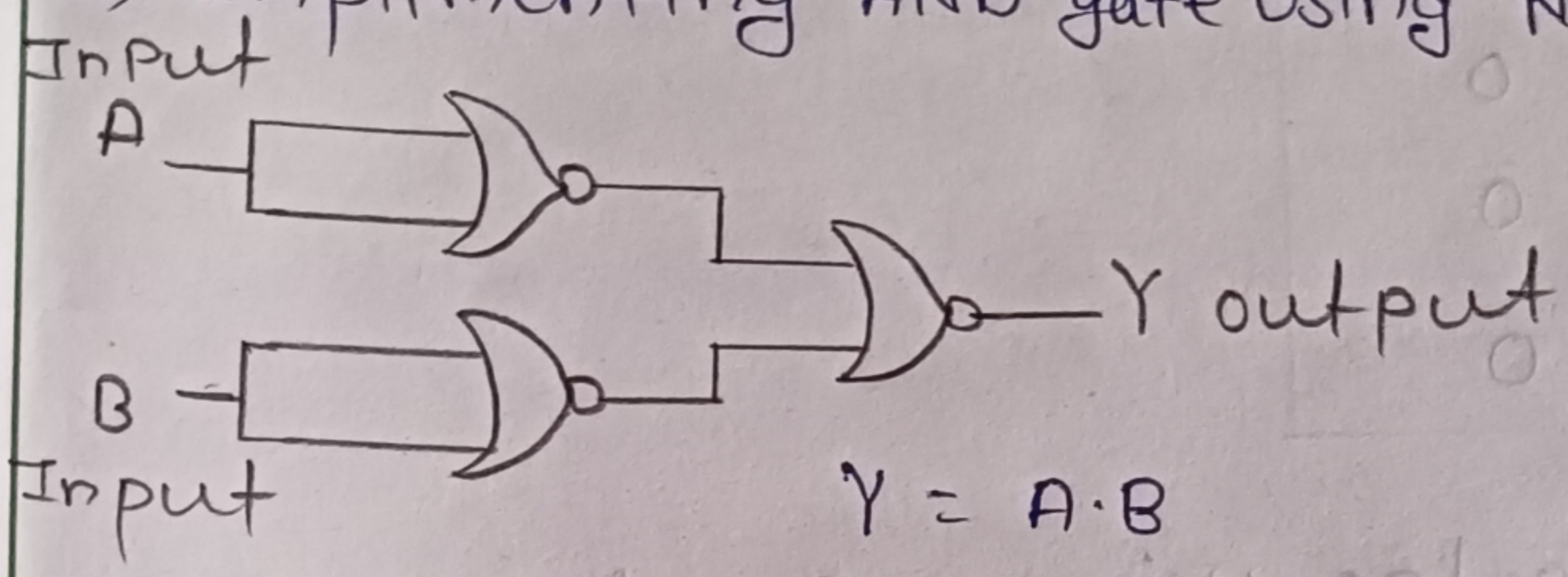


$Y = A + B$

Truth table

Input		output
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

3) Implimenting AND gate Using NOR gate

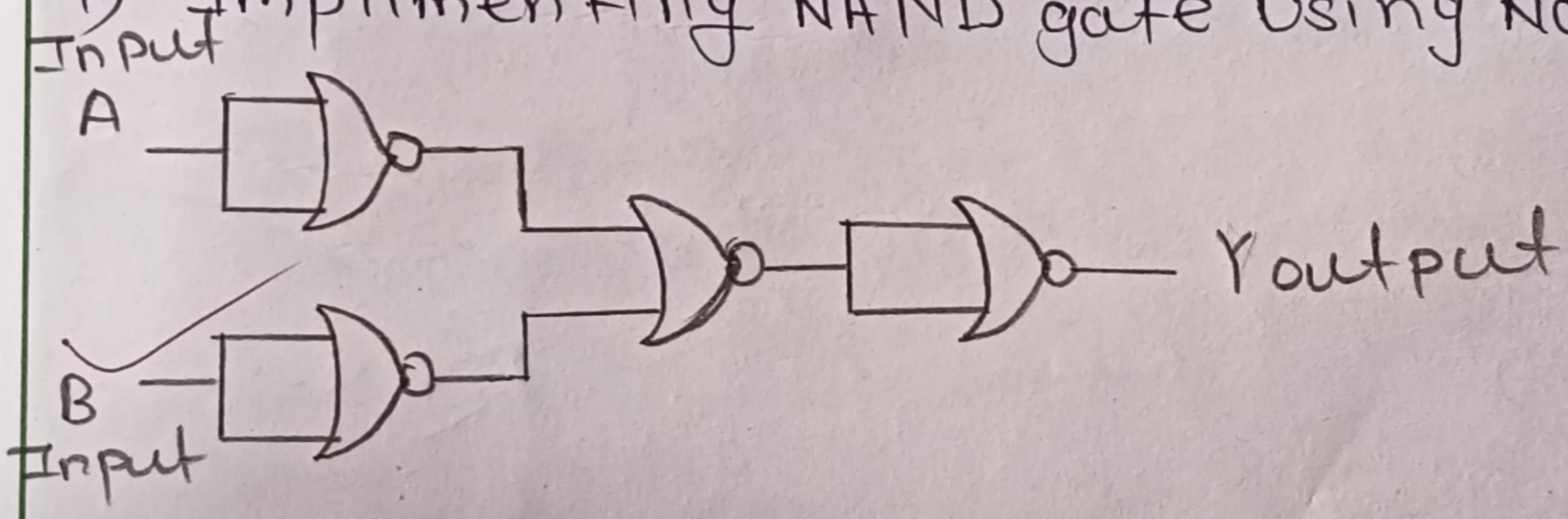


$Y = A \cdot B$

Truth table :

Input		output
A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

4) Implimenting NAND gate using NOR gate



$Y = \overline{A+B}$

Truth table :

Input		output
A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

Result : to study Basic gates using NOR gate and hence operations are verified.