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Subject:- CO Practical

Course:- MCA

Sec:- B

Unit Roll no:- 2101209

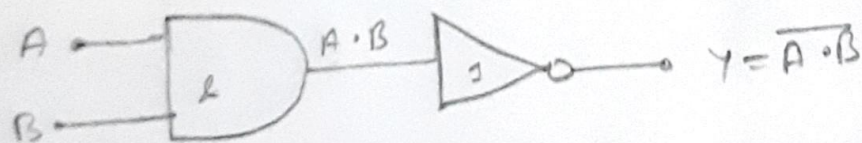
Working of NAND gate:- The NAND gate is a special type of logic gate in the digital logic circuit.

The NAND gate is universal gate.

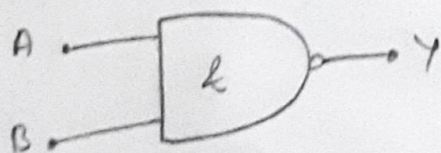
- The NAND gate is combination of NOT-AND gate.
- The output state of the NAND gate will be low only when all the inputs are high.
- Simply, this gate returns the complement result of the AND gate.

Logic Boolean Expression:-

$$(A \cdot B)' = Y$$



2-Input "AND" gate Plus a "NOT" gate



2-Input NAND gate

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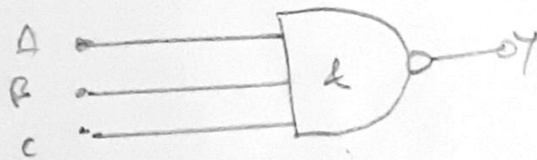
## Truth Table:-

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

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The 3-input NAND Gate :-

Logic Design :-



Truth Table :-

Input 1	Input 2	Input 3	output
A	B	C	Y
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

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