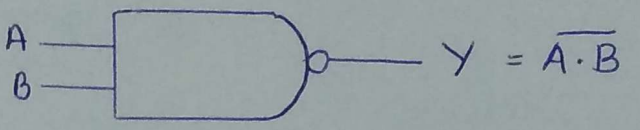
NAND Gate :- The logic NAND gate is a combination of an AND gate and NOT gate. It is also called as "UNIVERSAL GATE" because it is one of the most used logic gate types and all gates can be implemented by using it.

The logic symbol for the gate is :-



Boolean Expression :-

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

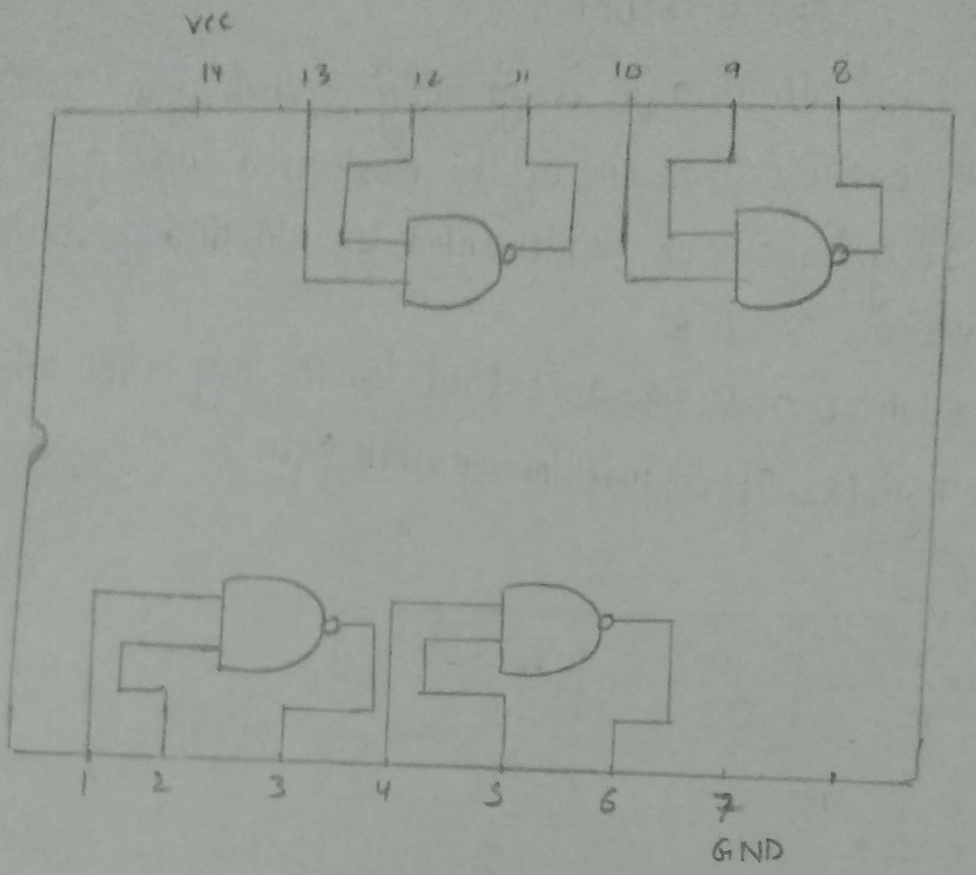
Truth Table :-

A	B	$Y = \overline{A \cdot B}$
0	0	1
0	1	1
1	0	1
1	1	0

Working - Output of a NAND gate should be low only if both the gate inputs are high. In any other case the

output be high. So if any one or both inputs are low the output of NAND gate will be high.

IC Diagram of NAND Gate:-



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Logic Diagram:-