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Ques 1:- Discuss the working of NAND Gate with the help of circuit diagram & Truth Table.

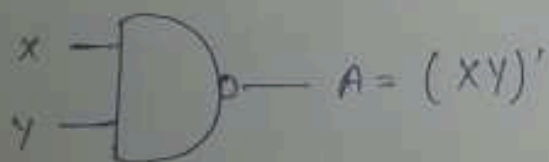
Ans 1:- The working of NAND Gate :-

The NAND Gate is a logic gate that performs the reverse operation of an AND logic gate.

It is a blend of AND and NOT gates and is a commonly used logic gate.

The NAND gate has an output that is normally at logic high & only goes to logic low when all of its inputs are at logic high. A NAND Gate constitutes one or more inputs with a single output.

Diagram :- (NAND GATE)

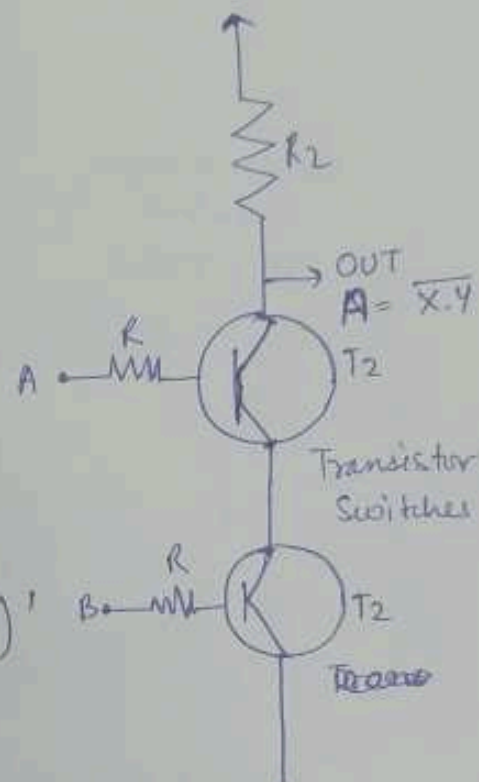
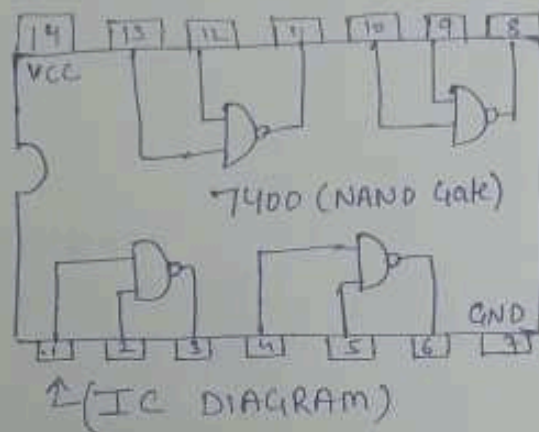


Sign:-

*Shikha*

continue ans (1):-

### Circuit Diagram of NAND Gate:-



### Truth Table of NAND Gate:-

X	Y	$A = (X.Y)$	$A = (X.Y)'$
0	0	0	1
0	1	0	1
1	0	0	1
1	1	1	0

⇒ From the truth table of the gate, it is clear that all the inputs must be high to get a low output. If any of the input is low, the output obtained will be high. If anyone of the input is also high the output will be high that is 1.

Sign:-

*Tripathy*