

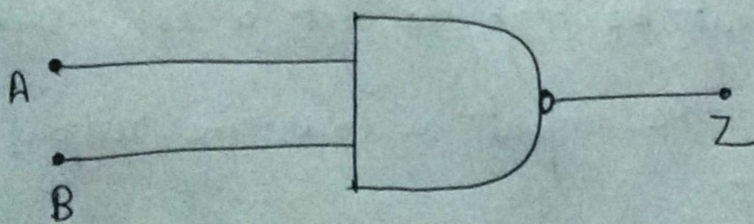
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Answer No - 01

**NAND gate** - The NAND gate is a combination of an AND gate and NOT gate. They are connected in cascade form it is also called Negated and gate. The NAND gate provides the false or low output only when their output is high or true.

The NAND gate is essential because different types of a boolean function are implemented by using it. it performs the function of OR, NOR and AND gate.



Logical Expression.

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

Mansi  
Student sign.



The output can only be low when both the inputs are high

### Truth Table

A	B	Z
0	0	1
0	1	1
1	0	1
1	1	0

The truth table of the gate it is clear that all the inputs must be high to get a low output and if any of the inputs is low, the output obtained will be high. If any one of the inputs is also high the output will be high that is 1.

Amarsi  
Student Sign.