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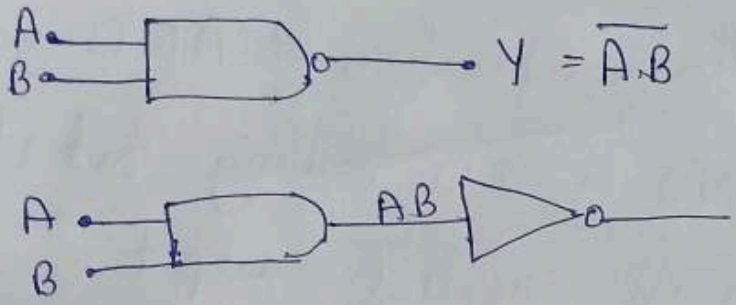
Ans) NAND gate is the combination of AND gate and NOT gate i.e NAND gate is nothing but it is AND gate with an inverted output.

The Logical statement of NAND is if input A is true and B is true then the output if false otherwise true.

, Boolean equation of NAND gate is $Y = \overline{A \cdot B}$

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

Diagram



The Logic or Boolean expression given for a logic NAND gate is that for Logical addition which is the opposite to the AND gate and which it performs on the complements of inputs. The Boolean expression for a logic NAND gate is denoted by a single dot or full stop symbol (.) with a line or Overline, (‾) over the expression to signify the NOT or logical negation of the NAND gate ~~with~~, giving us the expression of: $\overline{A \cdot B} = Q$