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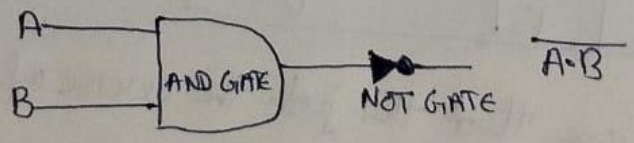
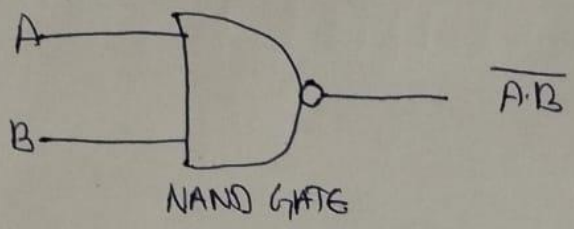
A NAND gate ("not AND gate") is a logic gate that produces a low output (0) only if alle its inputs are true, and high output (1) otherwise. Hence the AND gate is the inverse of an AND gate, and its circuit is produced by Connecting and AND gate to a NOT gate. Just like an AND gate, a NAND gate may have any no. of input probes but only one output probe.

The NAND gate performs the logical NAND operation. NAND gates are known as universal gates (along with NOR gates), which means they are a type of logic gate which can implement any Boolean function without the need to use any other gate type.



The Symbol of a NAND gate is similar to the AND gate, but a bubble is drawn at the output point of the AND gate. The symbol of the NAND gate is shown below.



NAND GATE

NAND Gate Truth Table

NAND gate means "not AND gate", hence the output of this gate is just reverse of that of a similar AND gate.

In the NAND, the fact is the opposite, here, the output is only logical 0 when and only when all inputs of the gate are 1s, and in all other cases, the output of NAND gate is high or 1.

Input		output
A	B	$X = \overline{A \cdot B}$
0	0	1
0	1	1
1	0	0
1	1	0

You can see that this just the reverse of the truth Table of and AND gate.