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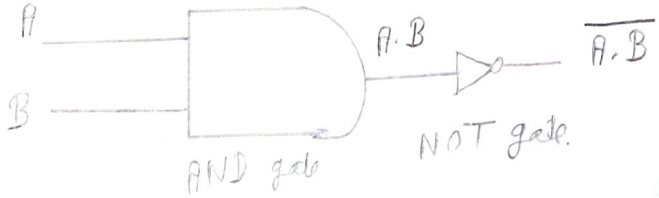
Ans 1 ⇒

A NAND gate is a logic gate that produces a low output (0) only if all its inputs are true, & high output (1) otherwise. Hence the NAND gate is the inverse of an AND gate, & it's circuit is produced by connecting an AND gate to a NOT gate.

WORKING ⇒

The NAND gate performs the logical NAND operation. NAND gates are known as Universal 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 basic logical construction of the NAND gate is :-



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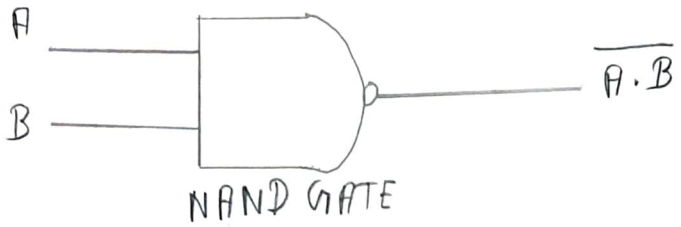
Symbol :-

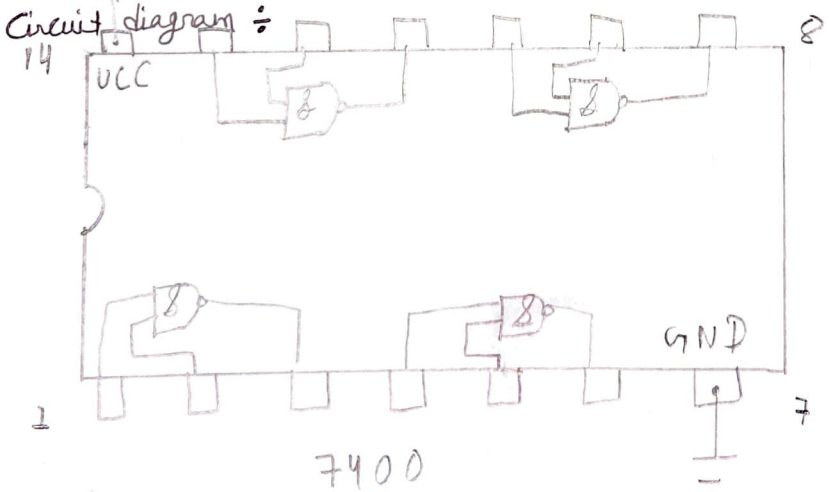


NAND GATE

NAND Crate truth table :-

Inputs		output	
A	B	$A \cdot B$	$\overline{A \cdot B}$
0	0	0	1
0	1	0	1
1	0	0	1
1	1	1	0

Circuit diagram :-



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