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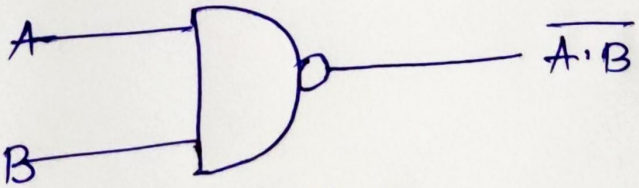
COA Mid term Practical

Ques1

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

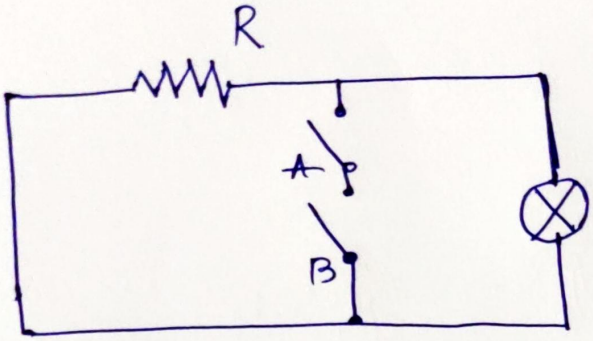
The NAND gate performs the logical NAND operation. NAND gates are known as universal gates (along with NOR gates)



NAND Gate

A	B	Output ($X = \overline{A \cdot B}$)
0	0	1
0	1	1
1	0	1
1	1	0

Circuit Diagram of NAND Diagram



Lamp ON = '1'
Lamp OFF = '0'

Switch A – Open = '0', Closed = '1'
Switch B – Open = '0', Closed = '1'