

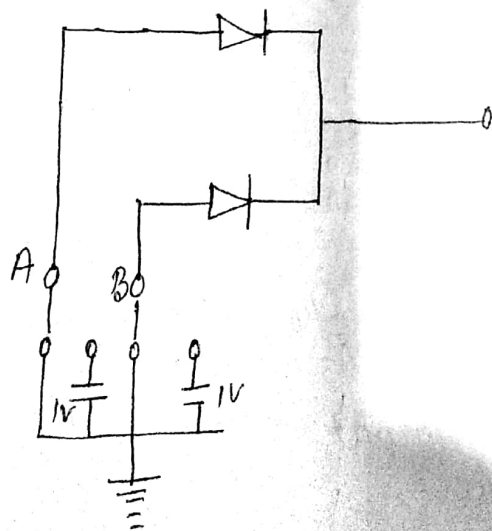
Logic gates.

The digital ckt. that can be analyzed with the help of Boolean algebra is called Logic Gate or Logic ckt, OR, AND, NOT, and Flip-Flop are the most commonly used logic gates.

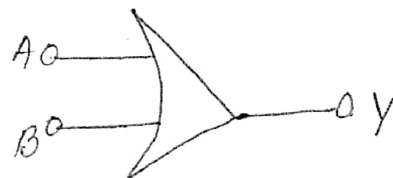
→ OR GATES:- This has two or more input and one output. OR gate configuration with diode known as diode Logic (DL) & with transistor is called Transistor Logic (TL). output = Sum of input

$$Y = A + B + \dots$$

Output is obtained by when any of input is in 'on' state.



(a) Two input OR gate



(b) Symbol of OR gate.

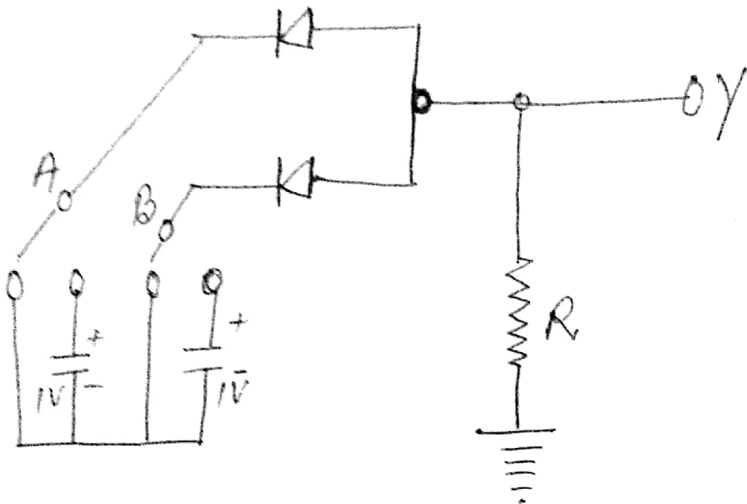
TRUTH TABLE

Input		output
A	B	$Y = A + B$
0	0	0
0	1	1
1	0	1
1	1	1



(c) Electrical

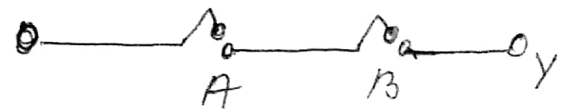
→ AND GATE: - It has two or more inputs and only one output. The output attains 1 state only when all inputs are in 1 state.



2. (a) Two input AND gate



(b) Symbol of AND gate



(c) Electrical equivalent

TRUTH TABLE

input		output
A	B	$Y = A \cdot B$
0	0	0
1	0	0
0	1	0
1	1	1