Introduction Logic Gates And Truth Table

- The most basic digital devices are called gates.

- Gates got their name from their function of <u>allowing or blocking</u> (gating) the flow of digital information.

- A gate has one or more inputs and produces an output depending on the input(s).

- A gate is called a combinational circuit.

Types Of Logic Gates

These are the basic gates:
1) OR
2) AND
3) NOT

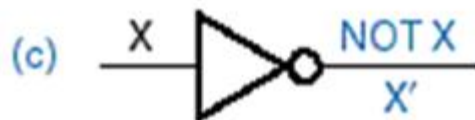Some more logics can be made by combining these basic gates.

Universal gates:

1) NOR

2) NAND

Combinational gates:

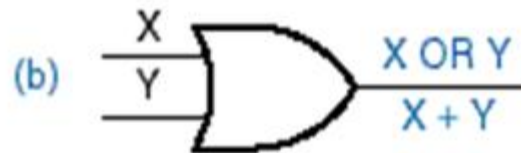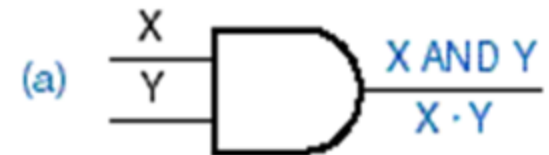1) XOR

2) XNOR

Digital Logic

- Binary system -- 0 & 1, LOW & HIGH, negated and asserted.
- Basic building blocks -- AND, OR, NOT

(c)

X	NOT X
0	1
1	0

(b)

X	Y	X OR Y
0	0	0
0	1	1
1	0	1
1	1	1

(a)

X	Y	X AND Y
0	0	0
0	1	0
1	0	0
1	1	1