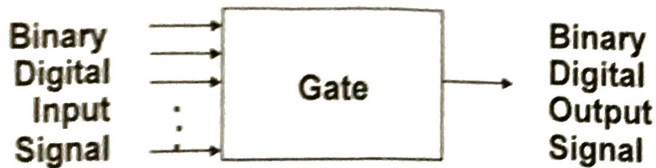


BASIC LOGIC BLOCK - GATE -



Types of Basic Logic Blocks

- Combinational Logic Block

Logic Blocks whose output logic value depends only on the input logic values

- Sequential Logic Block

Logic Blocks whose output logic value depends on the input values and the state (stored information) of the blocks

Functions of Gates can be described by

- Truth Table
- Boolean Function
- Karnaugh Map

LOGIC CIRCUIT DESIGN

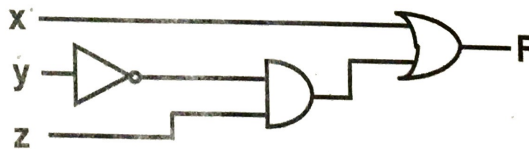
Truth
Table

x	y	z	F
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	0
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	1

Boolean
Function

$$F = x + y'z$$

Logic
Diagram



Boolean Function

$$F = X + Y \cdot Z$$



AND gate operator

$$= X \cdot Z$$

$$= Y' \cdot Z$$

$$= \overline{Y} \cdot Z$$

$$= /Y \cdot Z$$

All
Equivalent

