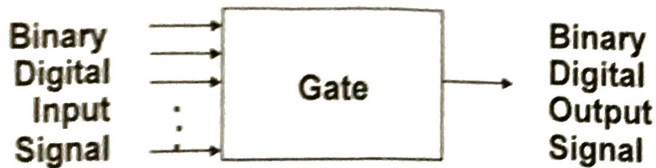


## BASIC LOGIC BLOCK - GATE -



### 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

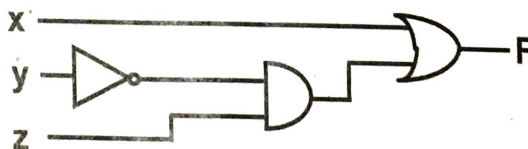
## LOGIC CIRCUIT DESIGN

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

