

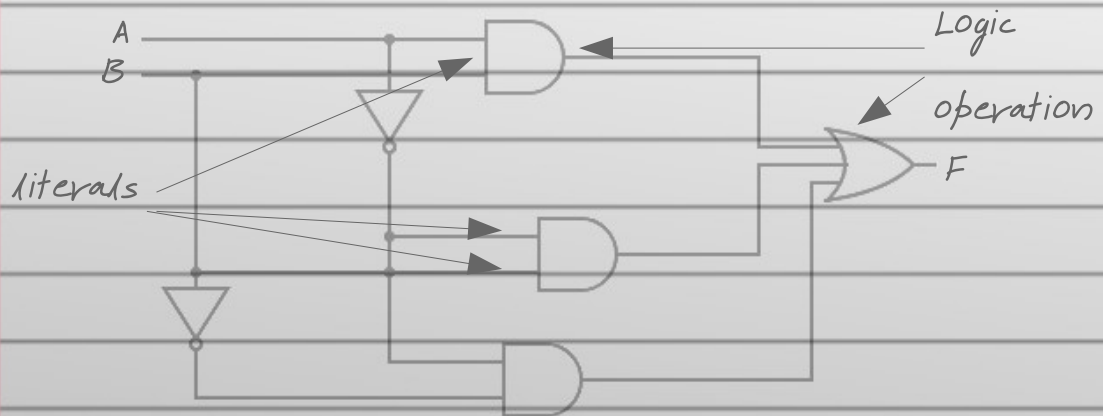
Practical-2

Aim : Simplify given Boolean expression and realize it.

Boolean expressions are composed of :

- Literals Variables and their complements
- Logical operations
- Boolean expressions are realized using a network (or combination)
- of logic gates.

Each logic gate represents one of the literal in the Boolean expression



Boolean expressions are evaluated by substituting a 0 or 1 for each literal, calculating the logical value of the expression.

A Truth table specifies the value of Boolean expression for every combination of the variables in the Boolean expression.

For an n -variable Boolean expression the truth table has 2^n rows (one for each combination).

Two Boolean expressions are equivalent if they

have the same value for each combination of the variable in the Boolean expression.

$$F1 = (A+B)'$$

$$F2 = A:B'$$