Class: XI	Department: Computer Science	Date of submission:
Worksheet -3	Topic: Boolean Algebra	Note: for practice

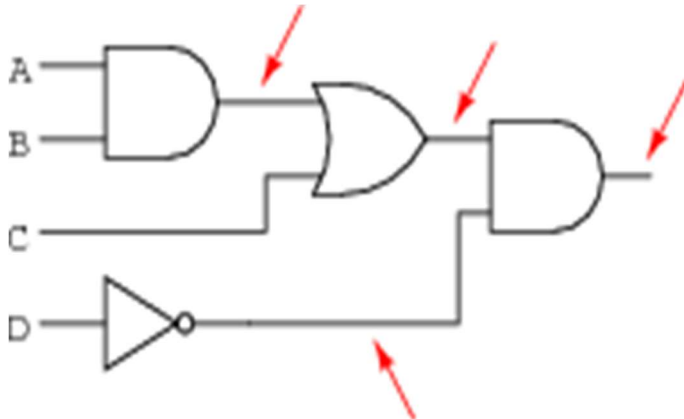1. Prove the Boolean Laws shown below using Truth Table.

   1. X+ X'Y = X + Y
   2. X + XY = X
   3. X+ Y Z = (X + Y) (X + Z)

2. Convert the following logic gate circuit into a Boolean expression.(Write the Boolean expression for the given circuits)
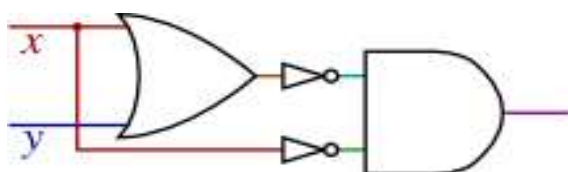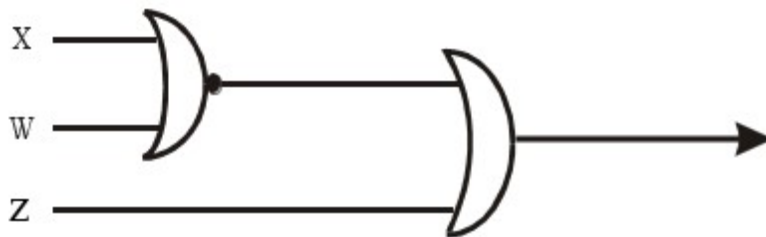
1.
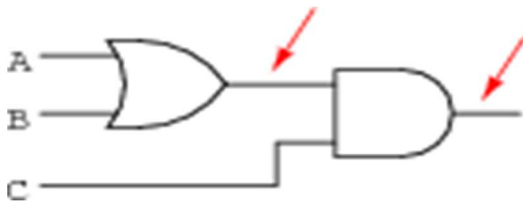
2.

3.

3.
   1.   Draw Logic circuit for y = A.C + B.C' + A'.B.C

2. Draw Boolean Logical Circuit from the given Boolean expression: Q = A.B + B.C.(B+C)

3. Draw Logic circuit for y = A.C + B.C' + A'.B.C

4. Draw a circuit diagram corresponding to the following Boolean Expression:

a) y = A+C .B+C' . A'+B+C

b) F = A'.B.C.(A+D)'

c) F = A.B'+C'.D

d) F = (U.V')+(U'.W')

e) F = A.B + A.C' + B'.A'.C

f) F = (X+Y).(X'+Z').(Y+Z)

4. Obtain logic expression for the following logic circuit:

5. Find the result of the following logic circuit