- (ii) By applying pressure, more product is obtained. According four moles of reactants produce two moles of product so by applying pressure more yield of NH3 is gained.
- Continuous withdrawl of NH3 will also increase the yield. (iii)
- (vi) Rate of reaction can also be increase with the help of catalyst like iron or iron oxide.

Q.13 A catalyst does not change the position of equilibrium but this equilibrium position approach earlier. Why? Ans.

A catalyst decrease the energy of activation required by reacting substance so the position of equilibrium reaches earlier.

How the change in pressure at equilibrium position effect the 0.14 Notesale.co.uk following reaction?

PCl5 PCl3 + Cl2

## Ans.

According to Le-cother's principle by increasing pressure the reaction ve hove toward les number of moles. In the above reaction, by increasing pressure the reaction will move in backward direction.

What is the relationship b/w kc, kp kc & kn? Q.15

Ans.

These four parameters are related as.

 $Kp = Kc (RT)\Delta n = Kx (P)\Delta n = Kn$ 

When mole of products are reactant are equal i.e.  $\Delta n = 0$  their Kp = kc = dx = kn

Prove that Kw is ionic product of water and its value is 1 x 10–14 0.16 at 250.

Ans.

Water undergoes self ionization as  $2H2O \rightarrow H3O++OH$ or H2O  $\rightarrow$  H++ OH-Kc [H2O] = [H+] [OH-]