**Q1. We know that the relationship between $K_c$ and $K_p$ is $K_p = K_c(RT)^{\Delta n}$ What would be the value of An for the reaction $NH_4C1(s) \leftrightharpoons NH_3(g) + HCl(g)$?**

(a) 1
(b) 0.5
(c) 1.5
(d) 2

**Sol:** (d) The relationship between $K_p$ and $K_c$ is

$K_p = K_c (RT)^{\Delta n}$

Where $\Delta n$ = (number of moles of gaseous products) − (number of moles of gaseous reactants)

For the reaction,

$NH_4C1(s) \leftrightharpoons NH_3(g) + HCl(g)$

$\Delta n = 2 - 0 = 2$