

Related Problems with Solutions

Problem 2:

9.28 How many ions are produced from the complex $\text{Co}(\text{NH}_3)_6\text{Cl}_2$ in solution?

(i) 6

(ii) 4

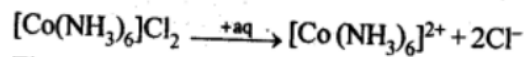
(iii) 3

(iv) 2

Solution:

Ans: Coordination number of cobalt = 6

Hence, the complex is $[\text{Co}(\text{NH}_3)_6]\text{Cl}_2$. It ionizes in the solution as follows



Thus, three ions are produced. Hence, the correct option is (iii)