Brain International School
Vikas Puri, New Delhi

ASSIGNMENT NO:4

SUBJECT: CHEMISTRY CLASS-XI NOV'2026

Chapter:1 Equilibrium

Very short answer type questions(2 marks)

1. What is solubility products? Find its relation for Ksp and solubility(s) for AlCl3.
2. Ksp for $CaCl_2$ is $3.6x\ 10^{-8}$ find its solubility.
3. How much $AgNO_3$ will dissolve in 200ml solution if its Ksp is 2.4×10^{-6}.
4. What is common ion effect, explain with example?
5. Ksp for MnS is 3.4×10^{-12}.if Conc. Of MnS is 2.6×10^{-2} ML^{-1}than than find ppt.will form or not .

Short answer type questions(3 marks)

6.What are conjugate acids and bases according to Lewis theory?

7.Find conjugates acid and bases of HSO_4^- and HCO_3^-

8. H_2O is amphoteric in nature explain with example.

9. Find PH of 10^{-8} M HCl solution.

10What are buffer solutions? Write its types with example

Long answer type questions (5 marks).

11.Explain $AlCl_3$ and PCl_5 are Lewis acids.drawing molecular structures.

12.How can you say $P^H + P^{OH} = 14$.Derive properly.

13.Find P^H of 0.002M NaOH and 0.004M H_2SO_4.

14.Kw for water is $10^{-12.6}$, find P^H of water also find nature of water at this Kw.

15.Find relation between Ka and 'C' with degree of dissociation for week acids.