

PART 1 - CHEMISTRY

Topic : Equilibrium

SECTION-B : (Maximum Marks : 8)

- This section contains **TWO** questions.
- The answer to each question is a **NUMERICAL VALUE**.
- For each question, enter the correct numerical value of the answer (in decimal notation, truncated / rounded-off to the **SECOND DECIMAL PLACE**; e.g. 6.25, 7.00, -0.33, -.30, 30.27, -127.30) in the place designated to enter the answer.
- Answer to each question will be evaluated according to the following marking scheme :
 Full Marks : +4 If ONLY the correct answer is entered;
 Zero Marks : 0 In all other cases.

1. At 25 °C, the concentration of H^+ ions in 1.00×10^{-3} M aqueous solution of a weak monobasic acid having acid dissociation constant (K_a) of 4.00×10^{-11} is $X \times 10^{-7}$ M. The value of X is _____.
 Use: Ionic product of water (K_w) = 1.00×10^{-14} at 25 °C [JEE Advanced 2025 Paper 1]

Scan or tap for the full solution



2. The solubility of barium iodate in an aqueous solution prepared by mixing 200 mL of 0.010 M barium nitrate with 100 mL of 0.10 M sodium iodate is $X \times 10^{-6}$ mol dm^{-3} . The value of X is _____.
 Use: Solubility product constant (K_{sp}) of barium iodate = 1.58×10^{-9} [JEE Advanced 2025 Paper 2]

Scan or tap for the full solution



Space for Rough Work

JEE ADVANCED EQUILIBRIUM — PYQS

Test Pattern : JEE (Advanced)

ANSWER KEY

SECTION-B

Ques.	1	2										
Ans.	2.2 to 2.3	3.85 to 4.15										