

PART 1 - CHEMISTRY

Topic : Electrochemistry

SECTION-A : (Maximum Marks : 4)

This section contains **ONE** question.

Each question has **FOUR** options (A), (B), (C) and (D). **ONLY ONE** of these four options is the correct answer.

For each question, choose the option corresponding to the correct answer.

Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +4 If **ONLY** the correct option is chosen;

Zero Marks : 0 If none of the options is chosen (i.e. the question is unanswered);

Negative Marks : -1 In all other cases.

1. At 300 K, the molar conductivities of the aqueous solutions of three salts at two different concentrations are given below:

Salt	Concentration (M)	Molar conductivity ($\text{S cm}^2 \text{mol}^{-1}$)
NaNO_3	0.01	111
	0.04	101
NaCl	0.01	117
	0.04	107
AgNO_3	0.01	125
	0.04	116

The conductivity of a saturated aqueous solution of AgCl is $1.40 \times 10^{-6} \text{ S cm}^{-1}$ at 300 K. If the solubility of AgCl in water at 300 K is $X \text{ mol L}^{-1}$, then $\log_{10}(X^{-1})$ is

(Assume that AgCl dissolved in water ionizes completely and that the molar conductivity of saturated AgCl solution is equal to its limiting molar conductivity.)

[JEE Advanced 2026 Paper 2]

(A) 3

(B) 4

(C) 5

(D) 6

Scan or tap for the full solution



Space for Rough Work

JEE ADVANCED ELECTROCHEMISTRY — KOHLRAUSCH'S LAW — PYQS

Test Pattern : **JEE (Advanced)**

ANSWER KEY

[illegible]