

JEE MAIN ELECTROCHEMISTRY — QUALITATIVE ELECTROLYSIS —
PYQS

Max. Marks: 4

Questions: 1

Section A (MCQ) — 1 question

Q.1 Given below are two statements :

1 M aqueous solutions of each of $\text{Cu}(\text{NO}_3)_2$, AgNO_3 , $\text{Hg}_2(\text{NO}_3)_2$, $\text{Mg}(\text{NO}_3)_2$ are electrolysed using inert electrodes. Given: $E^\circ_{\text{Ag}^+/\text{Ag}} = 0.80 \text{ V}$,

$E^\circ_{\text{Hg}_2^{2+}/\text{Hg}} = 0.79 \text{ V}$, $E^\circ_{\text{Cu}^{2+}/\text{Cu}} = 0.34 \text{ V}$ and

$E^\circ_{\text{Mg}^{2+}/\text{Mg}} = -2.37 \text{ V}$.

Statement-I: With increasing voltage, the sequence of deposition of metals on the cathode will be Ag, Hg and Cu.

Statement-II: Magnesium will not be deposited at the cathode instead oxygen gas will be evolved at the cathode.

In the light of the above statements, choose the most appropriate answer from the options given below :

[JEE Main 2025 (Online) 7th April Evening Shift]

- (1) Both Statement-I and Statement-II are incorrect
- (2) Statement-I is incorrect but Statement-II is correct
- (3) Statement-I is correct but Statement-II is incorrect
- (4) Both Statement-I and Statement-II are correct

Scan or tap for the
full solution



ANSWER KEY

Ques.	1										
Ans.	3										