

JEE MAIN ELECTROCHEMISTRY — QUANTITATIVE ELECTROLYSIS — PYQS

Max. Marks: 12

Questions: 3

Section A (MCQ) — 1 question

- Q.1** A solution of aluminium chloride is electrolysed for 30 minutes using a current of 2 A. The amount of the aluminium deposited at the cathode is _____.

[Given : molar mass of aluminium and chlorine are 27 g mol^{-1} and 35.5 g mol^{-1} respectively. Faraday constant = 96500 C mol^{-1}]

[JEE Main 2025 (Online) 22nd January Morning Shift]

(1) 1.660 g (2) 1.007 g (3) 0.336 g (4) 0.441 g

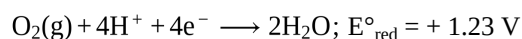
Scan or tap for the
full solution



Section B (Numerical) — 2 questions

- Q.2** Electricity is passed through an acidic solution of Cu^{2+} till all the Cu^{2+} was exhausted, leading to the deposition of 300 mg of Cu metal. However, a current of 600 mA was continued to pass through the same solution for another 28 minutes by keeping the total volume of the solution fixed at 200 mL. The total volume of oxygen evolved at STP during the entire process is _____ mL. (Nearest integer)

[Given:



Molar mass of Cu = 63.54 g mol^{-1}

Molar mass of O_2 = 32 g mol^{-1}

Faraday Constant = 96500 C mol^{-1}

Molar volume at STP = 22.4 L]

[JEE Main 2026 (Online) 24th January Morning Shift]

Scan or tap for the
full solution



- Q.3** Electrolysis of 600 mL aqueous solution of NaCl for 5 min changes the pH of the solution to 12. The current in Amperes used for the given electrolysis is _____. (Nearest integer).

[JEE Main 2025 (Online) 28th January Evening Shift]

Scan or tap for the
full solution



ANSWER KEY

Section A (MCQ) — 1 question

Ques.	1										
Ans.	3										

Section B (Numerical) — 2 questions

Ques.	2	3						
Ans.	111	2						