

PYQSide

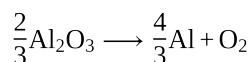
NEET GENERAL PRINCIPLES OF ISOLATION OF ELEMENTS — ELECTROCHEMICAL PRINCIPLES — PYQS

Max. Marks: 12

Questions: 3

Section A (MCQ)

- Q.1** The Gibbs energy for the decomposition of Al_2O_3 at 500°C is as follows



$$\Delta_r G = +960 \text{ kJ mol}^{-1}$$

The potential difference needed for the electrolytic reduction of aluminium oxide (Al_2O_3) at 500°C is at least

[AIPMT 2012 (Mains)]

- (1) 4.5 V (2) 3.0 V (3) 2.5 V (4) 5.0 V

Scan or tap for the
full solution



- Q.2** Aluminium is extracted from alumina (Al_2O_3) by electrolysis of a molten mixture of

[AIPMT 2012 (Prelims)]

- (1) $\text{Al}_2\text{O}_3 + \text{HF} + \text{NaAlF}_4$
 (2) $\text{Al}_2\text{O}_3 + \text{CaF}_2 + \text{NaAlF}_4$
 (3) $\text{Al}_2\text{O}_3 + \text{Na}_3\text{AlF}_6 + \text{CaF}_2$
 (4) $\text{Al}_2\text{O}_3 + \text{KF} + \text{Na}_3\text{AlF}_6$

Scan or tap for the
full solution



- Q.3** The mass of carbon anode consumed (giving only carbon dioxide) in the production of 270 kg of aluminium metal from bauxite by the Hall process is (Atomic mass : Al = 27)

[AIPMT 2005]

- (1) 270 kg (2) 540 kg (3) 90 kg (4) 180 kg

Scan or tap for the
full solution



ANSWER KEY

Ques.	1	2	3								
Ans.	3	3	3								