

JEE MAIN ELECTROCHEMISTRY — DRY CELL, BATTERIES, FUEL CELL AND CORROSION — PYQS

Max. Marks: 8
Questions: 2

Section A (MCQ) — 2 questions

- Q.1** On charging the lead storage battery, the oxidation state of lead changes from x_1 to y_1 at the anode and from x_2 to y_2 at the cathode. The values of x_1 , y_1 , x_2 , y_2 are respectively :

[JEE Main 2025 (Online) 4th April Morning Shift]

- (1) 0, +2, +4, +2 (2) +2, 0, 0, +4
 (3) +4, +2, 0, +2 (4) +2, 0, +2, +4

Scan or tap for the
full solution



- Q.2** The standard cell potential ($E_{\text{cell}}^\ominus$) of a fuel cell based on the oxidation of methanol in air that has been used to power television relay station is measured as 1.21 V. The standard half cell reduction potential for O_2 ($E_{\text{O}_2/\text{H}_2\text{O}}^\ominus$) is 1.229 V.

Choose the correct statement :

[JEE Main 2025 (Online) 3rd April Evening Shift]

- (1) Reactants are fed at one go to each electrode.
 (2) Oxygen is formed at the anode.
 (3) The standard half cell reduction potential for the reduction of CO_2 ($E_{\text{CO}_2/\text{CH}_3\text{OH}}^\ominus$) is 19 mV
 (4) Reduction of methanol takes place at the cathode.

Scan or tap for the
full solution



ANSWER KEY

Ques.	1	2									
Ans.	4	3									