

Electrochemistry

Sr	Questions	Answers Choice
1	Which element has $E^\circ = 0.00 \text{ V}$?	A. H^+ B. H_2 C. SHE D. All of the above
2	In the Hall Heroult process, aluminum is obtained by	A. Chemical reaction B. Thermal decomposition C. Electrolysis of alumina D. Roasting and leaching
3	In an electrolysis experiment if a charge 96,500 Coulombs is passed through a solution, the amount of substance liberated or deposited at the electrode is directly related to.	A. Mass number of the ion B. One mole of electrons being transferred C. Avogadro's number of ions being discharged D. Standard electrode potential of the metal ion
4	Which of the following changes would typically lead to an increase in the rate of electrolysis.	A. Decreasing the concentration of the electrolyte B. Increasing the distance between the electrodes C. Decreasing the surface area of the electrolytic cell D. Increasing the current passed through the electrolytic cell
5	If 1 Faraday of electricity is passed the mass deposited equals.	A. 1 gram equivalent B. 1 gram C. 1 mole D. 1 atm
6	The principle of measuring DO by Winkler's Method is based on.	A. Iodimetry B. Iodometry C. Acid Base titration D. Complexometry
7	Electrolysis of CuSO_4 using copper electrodes results in	A. Increase in electrolyte concentration B. Decrease in Cu^{2+} concentration C. No change in electrolyte composition D. Formation of new compound
8	If Zn -Cu galvanic cell works ideally after complete discharge, both compartments will have	A. CuSO_4 Solution B. Zn SO_4 Solution C. Cu ions D. Zn Solid
9	What is the unit of cell potential.	A. ampere B. Volt C. Ohm D. Farad
10	Which metal is the best reducing agent.	A. Cu B. K C. Zn D. Fe
11	Electrolyte in electroplating of silver	A. AgNO_3 B. NaCl C. CuSO_4 D. HNO_3
12	A Daniell cell produces electricity through	A. Electrolysis B. Radioactivity C. Spontaneous redox reaction D. Endothermic reaction
13	Electrochemical cells convert chemical energy into	A. Electrical energy B. Heat C. Light D. Nuclear energy
14	Electrochemical series helps in predicting.	A. Rate of reaction B. Type of bond C. Direction of reaction D. Nature of reaction

		<p>C. Direction of redox reactions</p> <p>D. Heat released</p>
15	Cell potential is the difference between	<p>A. Temperature and pressure</p> <p>B. Concentration of ions</p> <p>C. Electrode potentials of cathode and anode</p> <p>D. Mass of electrodes</p>
16	Oxidation number of oxygen in H_2O	<p>A. 1</p> <p>B. -2</p> <p>C. 0</p> <p>D. +1</p>
17	In a galvanic cell, the anode is	<p>A. Negative and site of oxidation</p> <p>B. Positive and site of oxidation</p> <p>C. Negative and site of reduction</p> <p>D. Positive and site of reduction</p>
18	The more positive the standard reduction potential	<p>A. The stronger the reducing agent</p> <p>B. The weaker the oxidizing agent</p> <p>C. The stronger the oxidizing agent</p> <p>D. No effect</p>
19	A positive value for the standard electrode potential of a metal ion metal half cell indicates that	<p>A. The metal is strong reducing agent</p> <p>B. The metal ion is readily oxidized</p> <p>C. The metal ion is readily reduced</p> <p>D. The metal will readily displace hydrogen from dilute acids.</p>
20	A more negative E° value means the electrode	<p>A. Is a strong oxidizing agent</p> <p>B. Is a strong reducing agent</p> <p>C. Is neutral</p> <p>D. Has high electronegativity</p>