ECAT Chemistry Chapter 10 Electrochemistry

Sr	Questions	Answers Choice
1	Time required to deposit one millimole of aluminium metal by the passage of 9.65 amperes through molten electrolyte containing aluminium ion is	A. 30 s B. 10 s C. 30,000 s D. 10,000 s
2	The specific conductance of a 0.1 N KCl solution at 23°C is 0.012 $ohm^{-1}cm^{-1}$. The resistance of cell containing the solution at the same temperature was found to be 55 ohm. The cell constant will be	A. 0.142 cm⁻¹ B. 0.66 cm⁻¹ C. 0.916 cm⁻¹ D. 1.12 cm⁻¹
3	Which of the following cannot conduct electricity :	A. NaCl fused. B. NaCl(aq) _{<o:p></o:p>} C. NaCl(Solid) _{<o:p></o:p>} <o:p></o:p> D. Both (b) and (c)
4	Which of the following is the use of electrolysis?	A. Eletrorefining B. Electroplating C. Both A and B D. None of the above
5	When during electrolysis of a solution of $AgNO_3$, 9650 coulombs of charge pass through the electroplating bath, the mass of silver deposited on the cathode will be	A. 1.08 g B. 10.8 g C. 21.6 g D. 108 g
6	If the standard electrode potential of CU^{2+}/Cu electrode is 0.34 V, what is the electrode potential of 0.01 M concentration of Cu^{2+}? (T=298)	A. 0.399 V B. 0.281 V C. 0.222 V D. 0.176 V
7	Pure water does not conduct electricity because it	A. Has low boiling point B. Is almost unionized C. Is neutral D. Is readily decomposed
8	The specific conductance of 0.1 M NaCl solution is 1.06 x $10^{-2}ohm^{-1}mol^{-1}$. Its molar conductance in $ohm^{-1}cm^2mol^{-1}$is	A. 1.06 x 10² B. 1.06 x 10³ C. 1.06 x 10⁴ D. 53
9	Ionization is the process in which ionic compounds when fused or dissolved in water split up into charged particles called :	A. Atoms. B. Electrons. C. Protons . D. Ions
10	The substance having highest conductivity at room temperature among the following is	A. 0.1 N HCl B. 0.1 N NaCl C. Graphite D. Glass
11	In a compound an atom has negative oxidation state because	A. Atom is negatively charged B. Atom acts as cathode C. Atom is more electronegative D. Atom has lowest ionization energy
12	The cell which generates electricity as a result of spontaneous oxidation-reduction reaction is called	A. Electrolytic cell B. Nelson's cell C. Galvanic cell D. Down's cell
		A. Chemical energy is converted into electricity B. Chemical energy is converted into

13	In a Galvanic cell	neat C. Electrical energy is converted into heat D. Electrical energy is converted into chemical energy
14	Zn does not displace Mg from $MgSO_4$solution because	A. Zn is more electropositive than Mg B. Zn is below Mg in electropositive series C. Zn is above Mg in electrochemical series D. Zn is trivalent Mg is divalent
15	The difference of potential of two electrodes when concentration of solution is 1M each at 25°C and1 atm is called :	A. Cell reaction. B. Electrode potential. C. Cell voltage. D. Standard cell potential.
16	Which of the following is a strong electrolyte?	A. Ca(NO₃)₂ B. HCN C. CH₃COOH D. NH₄OH
17	A current of 9.65 ampere flowing for 10 minutes deposits 3.0 g of the metal which is monovalent. The atomic mass of the metal is	A. 10 B. 50 C. 30 D. 96.5
18	Cell potential depends upon :	A. Concentration of ions B. Nature of electrolyte C. Temperature D. All of above
19	An electrochemical cell is based upon	A. Acid-base reaction B. Redox reaction C. Nuclear reaction D. None of the above
20	In a hydrogen-oxygen fuel cell, combustion of hydrogen occurs to	A. Generate heat B. Remove adsorbed oxygen from electrode surfaces C. Produce High purity water D. Create potential difference between two electrodes