



Electrochemistry

Sr	Questions	Answers Choice
1	Strong reducing agents gave	A. Greater positive value of standard reduction potential B. Greater negative value of standard reduction potential C. Lesser positive value of standard reaction potential D. None of these
2	In the electrolysis of aqueous solution of sodium nitrate, the ions which are reduced at the cathode are	A. H_3O^+ B. Na^+ C. OH^- D. NO_3^-
3	Which of the following yield both hydrogen and chlorine on electrolysis:	A. Electrolysis of acidified water. B. Electrolysis of molten NaCl C. Electrolysis of aqueous NaCl D. Electrolysis of saline water
4	Which one of the following reactions is not spontaneous	
5	Strong oxidizing agents have	A. Greater positive value of standard reduction potential B. Lesser positive value of standard C. Greater negative value of standard D. None of these
6	Which statement is incorrect about standard hydrogen electrode	A. Its oxidation and reduction potential is zero B. It consists of Pt wire dipped on 1 molar HCl solution C. The electrolyte is 1 molar NaOH solution D. H_2 gas is passes in it at 1 atmospheric pressure
7	When fused PbBr_2 is electrolyzed :	A. Lead appears at anode. B. Lead appears at cathode. C. Bromine appears at cathode. D. Lead appears at both electrodes.
8	Electrochemical series is a list of element S arranged into the increasing order of their	A. Standard oxidation potential B. Standard reduction potential C. Cell voltage D. Ionization potential
9	In KO_2 the oxidation state of oxygen is	A. -2 B. -1 C. +1/2 D. -1/2
10	Question Image	A. Adding H_2O and H^+ ions B. Adding OH^- ions C. Adding O_2 molecules D. Adding O atoms
11	Purification of an impure copper is made by electrolytic cell, in which impure copper is anode and pure copper is cathode, and the electrolyte used is	A. H_2SO_4 B. CuSO_4 C. ZnSO_4 D. Na_2SO_4
12	Question Image	A. -1.10 V B. +1.10 V C. -0.42 V D. +0.42 V
13	Metals like Fe, Mg, Al, Cr, Zn have more negative reduction potentials that is why	A. These don't react with steam B. These react very slowly with steam to liberate H_2 gas C. These react rapidly with steam to produce the metallic oxides and liberate H_2 gas D. These react with cold water violently
14	Standard reduction of Zn = -0.76 V and that of Ni is -0.25 V. On coupling them by a salt bridge which of these will act as anode	A. Salt bridge will act as anode B. Zn will act as anode C. Ni will act as anode D. None of these
		A. 0.1 N HCl

15	The substance having highest conductivity at room temperature among the following is	B. 0.1 N NaCl C. Graphite D. Glass
16	Electrolysis is used for :	A. Manufacture of caustic soda B. Refining of copper C. Electroplating D. All of above
17	Pick out the wrong statement. In electrochemical cell	A. Electrons are released at anode B. Cathode is regarded as negative electrode C. Chemical energy is converted into electrical energy D. Salt bridge maintains the electrical neutrality of the solution
18	2.5 faradays of electricity is passed through solution of CuSO_4 . The number of gram equivalents of copper deposited on the cathode would be	A. 1 B. 2 C. 2.5 D. 1.25
19	A cell constant is generally found by measuring the conductivity of aqueous solution of	A. BaCl_2 B. KCl C. NaCl D. MgCl_2
20		A. Fe is reduced B. Fe is oxidized C. Cl_2 is oxidized D. None of these
21	A standard hydrogen electrode is used as standard electrode of which electrode potential is arbitrarily taken as	A. +1 B. -1 C. 0.1 D. Zero
22	During redox reaction an oxidizing agent	A. Gains electrons B. Is oxidized C. Loses electrons D. Hydrolysed
23	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
24	The oxidation number of Mn in KMnO_4 is	A. +2 B. +4 C. +6 D. +7
25	Which of the following is the use of electrolysis?	A. Electrorefining B. Electroplating C. Both A and B D. None of the above
26	In the reaction $\text{K}_2\text{Cr}_2\text{O}_7 + \text{HCl} + \text{CrCl}_3 \rightarrow \text{Cl}_2 + \text{H}_2\text{O}$ the element which is reduced is	A. K B. Cl C. Cr D. H
27	Oxidation number of oxygen in OF_2 is	A. +1 B. -1 C. +2 D. -2
28	The cell in which a non-spontaneous redox reaction takes place as a result electricity is known as :	A. Electrolytic cell. B. Voltaic cell. C. Daniel cell. D. Dry cell.
29	During electrolysis, the reaction that takes place at cathode is :	A. Reduction B. Both (a) and (c) C. Oxidation D. No reaction occurs
30	The cathodic reaction in the electrolysis of dil H_2SO_4 with Pt electrodes	A. Reduction B. Oxidation C. Both oxidation and reduction D. neither oxidation or reduction
31	The oxidation state of an element is zero when	A. It forms an oxide B. It forms hydride C. It is in free state D. Only for noble gases
32	The value of SHE at cathode and anode is always taken to be	A. One B. Zero C. Different D. Same

		<p>A. 0.399 V</p> <p>B. 0.281 V</p> <p>C. 0.222 V</p> <p>D. 0.176 V</p>
33	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)	
34	Metallic conduction is due to the	<p>A. Movement of electrons</p> <p>B. Movement of ions</p> <p>C. Both a and b</p> <p>D. None of these</p>
35	A standard hydrogen electrode (S.H.E) consists of a platinized platinum electrode dipped in 1 molar solution of H^+ ions and hydrogen gas is passed at a pressure of	<p>A. One pascal</p> <p>B. One kilo pascal</p> <p>C. One atmosphere</p> <p>D. Then atmosphere</p>
36	Sodium metal is obtained by the electrolysis of fused NaCl in cell is called	<p>A. Nelson's cell</p> <p>B. Down's cell</p> <p>C. Daniell cell</p> <p>D. Voltaic cell</p>
37	The galvanic or voltaic cells which are rechargeable called as	<p>A. Primary cells</p> <p>B. Secondary cells</p> <p>C. Dry cells</p> <p>D. Infinite cells</p>
38	The standard EMF of Daniel cell is 1.10 volt. The maximum electrical work obtained from the Daniel cell is	<p>A. 212.3 kJ</p> <p>B. 175.4 kJ</p> <p>C. 106.15 kJ</p> <p>D. 53.07 kJ</p>
39	The conductivity of strong electrolyte	<p>A. Increases on dilution slightly</p> <p>B. Does not change on dilution</p> <p>C. Decreases on dilution</p> <p>D. Depends on density of electrolyte it self</p>
40	Cell potential depends upon :	<p>A. Concentration of ions</p> <p>B. Nature of electrolyte</p> <p>C. Temperature</p> <p>D. All of above</p>
41	K,Ca and Li metals may be arranged in decreasing order of their reduction potential as :	<p>A. Li, k, Ca</p> <p>B. Ca, K, Li</p> <p>C. Li, Ca, K</p> <p>D. K, Ca, Li</p>
42	A solution of sodium sulphate was electrolysed using some inert electrodes. The products at the electrodes are	<p>A. $\text{O}_{2\text{g}}$, $\text{H}_{2\text{g}}$</p> <p>B. $\text{O}_{2\text{g}}$, Na</p> <p>C. $\text{O}_{2\text{g}}$, $\text{SO}_{4\text{g}}$</p> <p>D. $\text{O}_{2\text{g}}$, $\text{S}_{2\text{g}}$, $\text{O}_{8\text{g}}$</p>
43	Calculate the amount of charge flowing in 2 minute in a wire of resistance 10Ω when a potential difference of 20 V is applied	<p>A. 120 C</p> <p>B. 240 C</p> <p>C. 20 C</p> <p>D. 4 C</p>
44	An electrochemical cell is based upon	<p>A. Acid-base reaction</p> <p>B. Redox reaction</p> <p>C. Nuclear reaction</p> <p>D. None of the above</p>
45	Standard reduction electrode potential of three metals A, B and C are respectively + 0.05 V, -3.0 and -1.2V. The reducing power of	<p>A. B > C > A</p> <p>B. A > B > C</p> <p>C. C > B > A</p> <p>D. A > C > B</p>
46	When fused PbBr_2 is electrolyzed	<p>A. Bromine appears at the cathode</p> <p>B. Lead is deposited at the cathode</p> <p>C. Lead appears at the anode</p> <p>D. None of these happens</p>
47	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	<p>A. 1.08 g</p> <p>B. 10.8 g</p> <p>C. 21.6 g</p> <p>D. 108 g</p>
48	Lead accumulator contains	<p>A. 30% NaCl solution as electrolyte</p> <p>B. 30% HCl solution as electrolyte</p> <p>C. 30% H_2SO_4 solution as electrolyte</p> <p>D. 30% NaOH solution as electrolyte</p>
49	Ionization is the process in which ionic compounds when fused or dissolved in water split up into charged particles called :	<p>A. Atoms.</p> <p>B. Electrons.</p> <p>C. Protons .</p> <p>D. Ions</p>

50	The difference of potential of two electrodes when concentration of solution is 1M each at 25°C and 1 atm is called :	<p>A. Cell reaction. B. Electrode potential. C. Cell voltage. D. Standard cell potential.</p>
51	For spontaneity of a cell, which is correct?	<p>A. $\Delta G = 0, \Delta E = 0$ B. $\Delta G = -ve, \Delta E = 0$ C. $\Delta G = +ve, \Delta E = 0$ D. $\Delta G = -ve$</p>
52	Coinage metals like Au, Pt, Ag and Cu are the least reactive metals and don't liberate H ₂ gas when treated with acids because	<p>A. These have very high positive values of reduction potentials B. These have very high negative values of reduction potentials C. Their ionization potentials are lowest D. Their reduction potentials are close to SHE</p>
53	Electrochemistry is concerned with the conversion of electrical energy into chemical energy in :	<p>A. Galvanic cell B. Electrolytic cell C. Voltaic cell D. Both (a) and (c)</p>
54	The unit of specific conductivity is	<p>A. Ohm cm⁻¹ B. Ohm cm⁻² C. Ohm⁻¹cm D. Ohm⁻¹cm⁻¹</p>
55	In a Galvanic cell	<p>A. Chemical energy is converted into electricity B. Chemical energy is converted into heat C. Electrical energy is converted into heat D. Electrical energy is converted into chemical energy</p>
56	The best electrode used in salt bridge is KCl. Which other electrolyte can also be used for the purpose :	<p>A. NaCl B. NH₄NO₃ C. KNO₃ D. NaNO₃</p>
57	When aluminium electrode is coupled with copper electrode in a galvanic cell :	<p>A. Reduction takes place at aluminium electrode. B. Oxidation takes place at copper electrode. C. Reduction takes place at copper electrode. D. Both (a) and (c)</p>
58	In a solution of CuSO ₄ how much time will be required to precipitate 2g copper by 0.5 ampere current?	<p>A. 12157.48 sec B. 102 sec C. 510 sec D. 642 sec</p>
59	Sodium can be obtained by :	<p>A. Electrolysis of acidified water. B. By heating NaCl and water at 100°C C. Electrolysis of molten sodium chloride. D. Electrolysis of aqueous sodium chloride.</p>
60	The oxidation number of chromium in K ₂ Cr ₂ O ₇ is	<p>A. 14 B. 12 C. 6 D. None of these</p>
61	Reduction or oxidation potential of standard hydrogen electrode is :	<p>A. 0.0 Volt B. 0.8 Volt C. 1.0 Volt D. 1.8 Volt</p>
62	96500 C electricity is passed through CuSO ₄ . The amount of copper precipitated is	<p>A. 0.25 mole B. 0.5 mole C. 1.0 mole D. 2.00 mole</p>
63	Which of the following is a strong electrolyte?	<p>A. Ca(NO₃)₂ B. HCN C. CH₃COOH D. NH₄OH</p>
64	In a Galvanic cell, the electrons flow from	<p>A. Anode to cathode through the solution B. Cathode to anode through the external circuit C. Cathode to anode through the external circuit D. Anode to cathode through the external circuit</p>

65	Which statement is incorrect for balancing of redox reactions by ion-electron method	<p>A. The reaction is splitted into two half reactions</p> <p>B. H_2O and H^+ ions are added for acidic or neutral reaction to balance O and H atoms</p> <p>C. To balance H, HCl, is added</p> <p>D. To balance O and H in the alkaline reaction OH^- is added</p>
66	Time required to deposit one millimole of aluminium metal by the passage of 9.65 amperes through molten electrolyte containing aluminium ion is	<p>A. 30 s</p> <p>B. 10 s</p> <p>C. 30,000 s</p> <p>D. 10,000 s</p>
67	In a hydrogen-oxygen fuel cell, combustion of hydrogen occurs to	<p>A. Generate heat</p> <p>B. Remove adsorbed oxygen from electrode surfaces</p> <p>C. Produce High purity water</p> <p>D. Create potential difference between two electrodes</p>
68		<p>A. Cu</p> <p>B. H</p> <p>C. N</p> <p>D. O</p>
69	In the electrolysis of fused bauxite ($\text{Al}_2\text{O}_3 \cdot 2\text{H}_2\text{O}$) with fused Cryolite (Na_3AlF_6) using carbon rods as anode. The product obtained at cathode is	<p>A. Na metal</p> <p>B. F_2 gas</p> <p>C. Al metal</p> <p>D. O_2 gas</p>
70	The conversion of chemical energy into electrical energy requires :	<p>A. Electrolytic cell</p> <p>B. Galvanic cell</p> <p>C. Voltaic cell</p> <p>D. Both (b) and (c)</p>
71	Which one of the following reaction takes place spontaneously	
72	Coupling of Pb with its $\text{Pb}^{2+}/\text{Pb} = -0.13 \text{ V}$ and Ag with $\text{Ag}^+/\text{Ag} = +0.80 \text{ V}$, the cell reaction	
73	The reference calomel electrode is made from which of the following?	<p>A. ZnCl_2</p> <p>B. CuSO_4</p> <p>C. Hg_2Cl_2</p> <p>D. HgCl_2</p>
74	In electrolytic cells, the chemical changes may be :	<p>A. Either spontaneous or non-spontaneous</p> <p>B. Always spontaneous</p> <p>C. Always non-spontaneous</p> <p>D. More spontaneous and less non-spontaneous.</p>
75	Fe can displace Cu from CuSO_4 solution because	<p>A. Fe is ferromagnetic</p> <p>B. Fe is below Cu in electrochemical series</p> <p>C. Fe is above Cu in electrochemical series</p> <p>D. Fe exists in divalent oxidation state</p>
76	In an electrolytic cell, the electrons flow from :	<p>A. Cathode to anode or opposite</p> <p>B. Cathode to anode</p> <p>C. Anode to cathode</p> <p>D. Random flow</p>
77	During electrolysis of KNO_3 , H_2 is evolved	<p>A. Anode</p> <p>B. Cathode</p> <p>C. Both a and b</p> <p>D. None</p>
78	Corrosion is basically a	<p>A. Altered reaction in presence of H_2O</p> <p>B. Electrochemical phenomenon</p> <p>C. Interaction</p> <p>D. Union between two light metals and a heavy metal</p>
79	In passage of electricity through aqueous solution of AgNO_3 silver dissolves at anode to form Ag^+ , the electrodes are	<p>A. Silver metal</p> <p>B. Pt metal</p> <p>C. Graphite</p> <p>D. Copper metal</p>
80	Which statement is incorrect for NICAD battery	<p>A. The electrolyte is alkali</p> <p>B. Cd acts as anode</p> <p>C. MnO_2 acts as electrolyte</p> <p>D. NiO_2 acts as cathode</p>
81	The reduction potential to copper electrode is +0.34 V and that of Zn electrode is -0.76 V. when these two are coupled the e.m.f. of the cell is	<p>A. -0.42 V</p> <p>B. +0.42</p> <p>C. -1.10 V</p> <p>D. +1.10 V</p>
82	The specific conductance of a 0.1 N KCl solution at 23°C is $0.012 \text{ ohm}^{-1}\text{cm}^{-1}$. The resistance of cell containing the solution at the same temperature was found to be 55 ohm. The cell constant will be	<p>A. 0.142 cm^{-1}</p> <p>B. 0.66 cm^{-1}</p> <p>C. 0.916 cm^{-1}</p> <p>D. 1.12 cm^{-1}</p>

83	Question Image	<p>A. Zn</p> <p>B. H</p> <p>C. S</p> <p>D. O</p>
84	The standard e.m.f. of a galvanic cell involving cell reaction with $n = 2$ is found to be 0.2965 V at 25°C. The equilibrium constant of the reaction would be	<p>A. 1.0×10^{10}</p> <p>B. 2.0×10^{11}</p> <p>C. 4.0×10^{12}</p> <p>D. 1.0×10^2</p>
85	Question Image	<p>A. A strong reducing agent</p> <p>B. A strong oxidising agent</p> <p>C. Better oxidising agent than hydrogen</p> <p>D. Less reducing agent than hydrogen</p>
86	The oxidation number of free element is always taken to be	<p>A. 0</p> <p>B. 1</p> <p>C. 2</p> <p>D. -1</p>
87	Which statement is correct for the fuel cells	<p>A. These cells operate at low temperature</p> <p>B. These cells operate at low temperature</p> <p>C. No catalyst used for the formation of water</p> <p>D. MnO_2 is used as electrolyte</p>
88	The reaction is galvanic cell is	<p>A. Spontaneous</p> <p>B. Non-spontaneous</p> <p>C. Acid-base</p> <p>D. None of these</p>
89	If the salt bridge is not used between two half cells, then the voltage	<p>A. Decrease rapidly</p> <p>B. Decrease slowly</p> <p>C. Does not change</p> <p>D. Drops to zero</p>
90	When electricity is passed through molten electrolyte consisting of alumina and cryolite, 13.5 g of Al are deposited. The number of faradays of electricity passed must be	<p>A. 2.0</p> <p>B. 1.5</p> <p>C. 1.0</p> <p>D. 0.5</p>
91	Question Image	<p>A. Iodine can oxidise iron</p> <p>B. Bromine can oxidise iron</p> <p>C. Iodine can oxidise bromine</p> <p>D. Iron can oxidise bromine</p>
92	Prevention of corrosion of iron by Zn coating is called	<p>A. Galvanization</p> <p>B. Cathodic protection</p> <p>C. Electrolysis</p> <p>D. Photoelectrolysis</p>
93	A half reaction can be defines as :	<p>A. It always occurs at cathode.</p> <p>B. Involves only half of a mole of electrolyte.</p> <p>C. Occurs at one of the electrode.</p> <p>D. Goes only half way to completion.</p>
94	The electrode through which the electrons enter the electrolytic solution is	<p>A. Anode</p> <p>B. Cathode</p> <p>C. May be anode or cathode</p> <p>D. None of these</p>
95	In electrolysis of NaCl when Pt electrode is taken then H_2 is liberated at cathode while with Hg cathode it forms sodium amalgam	<p>A. Hg is more inert than Pt</p> <p>B. More voltage is required to deduce H^+ at Hg than Pt</p> <p>C. Na is dissolved in Hg while it does not dissolve in Pt</p> <p>D. Conc. of H^+ ions is larger when Pt electrode is taken</p>
96	When electric current is used to carry out non-spontaneous redox, the process is called	<p>A. Hydrolysis</p> <p>B. Electrolysis</p> <p>C. Decomposition</p> <p>D. Neutralization</p>
97	In electronic watches or electronic calculators the tiny batteries used are	<p>A. Alkaline battery</p> <p>B. NICAD battery</p> <p>C. Fuel cell</p> <p>D. Silver oxide battery</p>
98	The electrolysis of CuSO_4 aqueous solution using copper as cathode as well an anode the substance which deposits at cathode is	<p>A. H_2SO_4</p> <p>B. Oxygen</p> <p>C. Copper</p> <p>D. Hydrogen</p>
99	Specific conductivity of a solution	<p>A. Increases with dilution</p> <p>B. Decreases with dilution</p> <p>C. Remains unchanged with dilution</p> <p>D. Depends on mass of electrolyte</p>

100	Li has the lowest reduction potential while the element with highest reduction potential is	B. F C. O D. N
101	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
102	If a salt bridge is removed between the two half cells, the voltage	A. Drops to zero B. Does not change C. Increases gradually D. Increases rapidly
103	A certain current liberate 0.5 g of hydrogen in 2 h. How many grams of copper can be liberated by the same time in a copper sulphate solution?	A. 12.7 gm B. 15.9 gm C. 31.8 gm D. 63.5 gm
104	F ₂ , Cl ₂ , Br ₂ and I ₂ lie below SHE is the Electro chemical series that is why these	A. Undergo reduction B. Undergo oxidation C. Liberate H ₂ gas with steam D. None of these
105	Pure water does not conduct electricity because it	A. Has low boiling point B. Is almost unionized C. Is neutral D. Is readily decomposed
106	Metals which are above SHE in electrochemical series	A. Can liberate H ₂ from acid B. Cannot liberate H ₂ from acid C. Cannot always liberate H ₂ from acid D. None of these
107	By using graphite electrode the electrolysis of aqueous solution of NaCl produces at anode	A. H ₂ gas B. Cl ₂ gas C. NaOH D. No metal
108	The art of electroplating was given by	A. Faraday B. Edison C. Thomas Gradam D. Brugan
109	Alkaline battery has a voltage of	A. 4.5 V B. 3.5 V C. 2.5 V D. 1.5 V
110	Out of Cu, Ag, Fe and Zn the metal which can displace all others from their salt solution is	A. Ag B. Cu C. Zn D. Fe
111	The oxidation number of H is -1 in the compound	A. H ₂ O B. H ₃ BO ₃ C. NaOH D. NaH
112	Most metals are conductors of electricity because of the :	A. Light weight. B. Immobility of the electrons. C. Lustrous surfaces D. Relatively free movement of their electrons
113	When aqueous solution of NaOH is electrolysed using graphite electrodes, the product obtained at anode is	A. O ₂ gas B. H ₂ gas C. Na metal D. Na ₂ O
114	The two half cells of a galvanic cell are connected by	A. Ammeter B. Salt bridge C. Hydrogen electrode D. Copper electrode
115	Metallic conduction is also called as :	A. Ionic conduction. B. Protonic conduction. C. Electronic conduction D. Super conduction
116	An electric current is passed through silver nitrate solution using silver electrodes. 10.79 g of silver was found to be deposited on the cathode if the same amount of electricity is passed through copper sulphate solution using copper electrodes, the weight of copper deposited on the cathode is	A. 6.4 g B. 2.3 g C. 128.8 g D. 3.2 g
117	When fused PbBr ₂ is electrolysed then	A. Bromine appears at cathode B. Lead deposited at the cathode C. Lead appears at the anode D. None of these happens

118	The number of coulombs required for the deposition of 107.870 g of silver is	<p>A. 96500</p> <p>B. 48250</p> <p>C. 193000</p> <p>D. 10000</p>
119	Best way to prevent rusting of iron is by	<p>A. Making iron cathode</p> <p>B. Putting it in saline water</p> <p>C. Both of these</p> <p>D. None of these</p>
120	Zn does not displace Mg from MgSO_4 solution because	<p>A. Zn is more electropositive than Mg</p> <p>B. Zn is below Mg in electropositive series</p> <p>C. Zn is above Mg in electrochemical series</p> <p>D. Zn is trivalent Mg is divalent</p>
121	96500 C of electricity liberates from CuSO_4 solution	<p>A. 63.5 g of Cu</p> <p>B. 31.75 g of Cu</p> <p>C. 96500 g of Cu</p> <p>D. 100 g of Cu</p>
122	The voltaic or galvanic cells which cannot be recharged are called	<p>A. Primary cells</p> <p>B. Secondary cells</p> <p>C. Infinite cells</p> <p>D. Fuel cells</p>
123	The cell which generates electricity as a result of spontaneous oxidation-reduction reaction is called	<p>A. Electrolytic cell</p> <p>B. Nelson's cell</p> <p>C. Galvanic cell</p> <p>D. Down's cell</p>
124	While balancing an equation by ion electron method, the number of oxygen atoms are balanced by	<p>A. $\text{OH}^{\sup>-}$</p> <p>B. $\text{H}^{\sub>2}$</p> <p>C. $\text{O}^{\sub>2}$</p> <p>D. $\text{H}^{\sup>+}$</p>
125	An electrolyte	<p>A. Forms complex ions solution</p> <p>B. Gives ions only when electricity is passed</p> <p>C. Possesses ions even in solid state</p> <p>D. Gives ions only when dissolved in water</p>
126	Lead accumulator stops discharging current when	<p>A. Lead at anode converted to $\text{PbO}^{\sub>2}$</p> <p>B. $\text{PbO}^{\sub>2}$ at cathode converted to Pb</p> <p>C. Both electrodes are completely covered with $\text{PbSO}^{\sub>4}$</p> <p>D. Both electrodes are completely covered with $\text{Pb(OH)}^{\sub>2}$</p>
127	Cell in which an electric current drives a non-spontaneous reaction is called	<p>A. Electrolytic cell</p> <p>B. Voltaic cell</p> <p>C. Biological cell</p> <p>D. Electrochemical cell</p>
128	The function of salt bridge in the galvanic or voltaic cell is to	<p>A. Carry out oxidation at anode</p> <p>B. To carry out reduction at cathode</p> <p>C. Carry out electrolysis</p> <p>D. To prevent the net charge accumulation in either of the half cells</p>
129	Which of the following (1 M) conducts more electricity?	<p>A. Sulphuric acid</p> <p>B. Boric acid</p> <p>C. Nitric acid</p> <p>D. Phosphorus acid</p>
130	A dry alkaline cell has porous Zn anode and MnO_2 as cathode the electrolyte used is	<p>A. $\text{Ca(OH)}^{\sub>2}$</p> <p>B. NaOH</p> <p>C. KOH</p> <p>D. $\text{NH}^{\sub>4}$OH</p>
131	Which of the following correctly describes the process occurring at the electrodes when molten NaCl is electrolyzed:	<p>A. No reaction at anode, reduction at cathode.</p> <p>B. No reaction at cathode, oxidation at anode.</p> <p>C. Oxidation at anodes, reduction at cathode.</p> <p>D. Oxidation at cathode, reduction at anode.</p>
132	The function of salt bridge is :	<p>A. To increase movement of ions.</p> <p>B. To increase the emf of cell.</p> <p>C. To decrease the temperature</p> <p>D. To maintain electrical neutrality</p>
133	A smuggler could not carry gold by chemically depositing iron on the gold surface since	<p>A. Gold is denser</p> <p>B. Iron rusts</p> <p>C. Gold has higher reduction potential than iron</p> <p>D. Gold has lower reduction potential than iron</p>
134	What will be the weight of deposited silver on passing 965 coulombs of electricity in solution of AgNO_3 ?	<p>A. 1.08 g</p> <p>B. 2.16 g</p> <p>C. 0.54 g</p> <p>D. 0.27 g</p>

135	An electric current is passed through silver voltameter connected to a water voltmeter. The cathode of the silver voltameter is 0.108 g more at the end of the electrolysis. The volume of oxygen evolved at STP is	A. 56 cm ³ B. 550 cm ³ C. 5.6 cm ³ D. 11.2 cm ³
136	When electrically is passed through molten $Al_2O_3 + Na_3AlF_6$ and 13.5 gms of Al are deposited, the number of farady must be	A. 0.5 B. 1.0 C. 1.5 D. 2.0
137	When quantity of electricity passed is one faraday then the mass deposited at the electrode is equal to	A. One gm, atomic weight B. One gm, Equivalent C. Electrochemical equivalent D. None of the above
138	When a metal is dipped in 1 molar of its solution at 298 K. then potential set up is called	A. Standard electrode potential B. Electric charge C. Ionization potential D. Electroplating
139	The amount of electricity that can deposit 108 g of silver from silver nitrate solution is	A. 1 ampere B. 1 coulomb C. 1 faraday D. 2 ampere
140	Metals usually conduct electricity because	A. There are mobile electrons in the metallic structure B. Metals are decomposed by current C. Metals have high resistance D. In metals the ions are free to move
141	What are the products electrolysis of aqueous sodium chloride at two electrodes	A. Chlorine at anode and oxygen at cathode. B. Hydrogen at anode and chlorine at cathode. C. Chlorine at anode and hydrogen at cathode. D. Chlorine at anode and sodium at cathode.
142	A cell in which spontaneous redox reaction generates an electric current is called	A. Electrolytic cell B. Electrochemical cell C. Voltaic or Galvanic cell D. Biological cell
143	In the presence of copper electrodes the electrolysis of aqueous $CuSO_4$ produces at cathode	A. H_2 gas B. O_2 gas C. SO_2 gas D. Cu metal
144	During electrolysis, electrons are :	A. Lost by anions and gained by cations B. Gained by anions and lost by cations C. Gained only D. Lost only
145	Which of the following cannot conduct electricity :	A. NaCl fused. B. $NaCl(aq)$ C. Solid NaCl D. Both (b) and (c)
146	The equivalent conductivity of 0.1 M weak acid is 100 times less than at infinite dilution. The degree of dissociation is	A. 100 B. 10 C. 0.01 D. 0.001
147	The process of electrical coating of one metal on another to protect, decorate or to have greater resistance to corrosion is called	A. Electroplating B. Electrolysis C. Conduction D. Induction
148	Which of the substances Na, Hg, S, Pt and graphite can be used as electrodes in electrolytic cells having aqueous solution?	A. Na, Pt and graphite B. Na and Hg C. Pt and graphite only D. Na and S only

149	When aqueous NaCl is electrolyzed, which of the following ions get discharged at anode :	<p>background-attachment: initial; background-origin: initial; background-clip: initial;">Na⁺</p> <p></o:p></p></p> <p>C. OH⁻</p> <p></o:p></p></p> <p>D. Cl⁻</p> <p><o:p></o:p></p></p>
150	Caustic soda is obtained by electrolysis of conc. aqueous solution of NaCl in a cell called	<p>A. Daniell's cell</p> <p>B. Nelson's cell</p> <p>C. Down's cell</p> <p>D. Voltaic cell</p>
151	Which of the following will be good conductor of electricity	<p>A. Pure distilled water</p> <p>B. Molten NaCl</p> <p>C. Dilute solution of glucose</p> <p>D. Chloroform</p>
152	The reference electrode is made by using	<p>A. ZnCl₂</p> <p>B. CuSO₄</p> <p>C. HgCl₂</p> <p>D. Hg₂Cl₂</p>
153	Reaction takes place at anode is	<p>A. Ionization</p> <p>B. Reduction</p> <p>C. Oxidation</p> <p>D. Hydrolysis</p>
154	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 ² mol ⁻¹ is	<p>A. 1.06 x 10⁻²</p> <p>B. 1.06 x 10⁻³</p> <p>C. 1.06 x 10⁻⁴</p> <p>D. 53</p>
155	A cell in which electric current is produced as a result spontaneous redox reaction is called :	<p>A. Dry cell</p> <p>B. Electrolytic cell</p> <p>C. Galvanic cell</p> <p>D. Standard cell</p>
156	Electrolytes in the form of solution or in the fused state have the ability to conduct :	<p>A. Light.</p> <p>B. Electricity.</p> <p>C. Ions.</p> <p>D. Electrons.</p>
157	Silver oxide battery has a voltage of	<p>A. 2.0 V</p> <p>B. 1.5 V</p> <p>C. 2.5 V</p> <p>D. 1.0 V</p>
158	Which of the following statements is true about Galvanic cell	<p>A. Anode is negatively charged</p> <p>B. Reduction occurs at anode</p> <p>C. Cathode is positively charge</p> <p>D. Reduction occurs at cathode</p>
159	Which of the following statement is incorrect about SHE(Standard hydrogen electrode):	<p>A. Reduction potential of Cu⁺² is smaller than H⁺ ions when it is coupled with copper electrode.</p> <p>B. gas is passed in it at 1 atm pressure.</p> <p>C. Its oxidation potential and reduction potential is zero.</p> <p>D. It is made of platinum wire dipped in HCl solution</p>
160	In lead accumulator the electrolyte is H ₂ SO ₄ solution is	<p>A. 30% H₂SO₄</p> <p>B. 60% H₂SO₄</p> <p>C. 80% H₂SO₄</p> <p>D. 90% H₂SO₄</p>
161	Same amount of electric current is passed through solutions of AgNO ₃ and HCl. If 1.08 g of silver is obtained in the first case, the amount of hydrogen liberated as S.T.P in the second case is	<p>A. 112 cm³</p> <p>B. 22400 cm³</p> <p>C. 224 cm³</p> <p>D. 1.008 g</p>
162	Corrosion reaction are	<p>A. Spontaneous redox reaction</p> <p>B. Non-spontaneous acid-base reactions</p> <p>C. Spontaneous acid-base reactions</p> <p>D. None of these</p>