

Student Name _____

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- 1) Which of the following reaction is possible at anode?
a) $F_2 \rightarrow 2F^-$ b) $\frac{1}{2} O_2 + 2H^+ \rightarrow H_2O$
c) $2Cr^{3+} + 7H_2O \rightarrow Cr_2O_7^{2-} + 14H^+$ d) None of these
- 2) Which one of the following reactions is a redox reaction?
a) $Pb^{2+} + 2Cl^- \rightarrow PbCl_2$ b) $NaOH + HCl \rightarrow NaCl + H_2O$
c) $AgNO_3 + HCl \rightarrow AgCl + HNO_3$ d) $2Al + 3Cl_2 \rightarrow 2AlCl_3$
- 3) Which species is the oxidizing agent in the following reaction? $Cl_2 + 2I^- \rightarrow I_2 + 2Cl^-$
a) Cl_2 b) I^- c) I_2 d) Cl^-
- 4) In an electrochemical cell, electrons flow in which direction?
a) From the anode to cathode through the porous cup
b) From the cathode to anode through the external circuit
c) From the anode to cathode through the external circuit
d) From the cathode to anode through porous cup
- 5) Which of the following substances is not an electrolyte?
a) Common salt b) Sulphuric acid c) Acetic acid d) Glucose
- 6) The conduction of electric current through the external circuit in an electrolytic cell is by
a) Electrons b) Negative ions only c) positively charged metal ions only d) both positively and negatively charged ions
- 7) The products of electrolysis of an aqueous solution of a salt
a) Cannot be predicted always
b) Can be predicted always without an experiment
c) Always include a metallic product d) Include none of the above
- 8) The product obtained at the anode by the electrolysis of an aqueous solution of sulfuric acid is
a) Hydrogen b) Oxygen c) SO_2 d) No product is formed
- 9) Which of the following metals will not displace Cu from aqueous solution of $CuSO_4$?
a) Ag b) Zn c) Ni d) Fe
- 10) The most easily oxidizable species amongst the following is
a) Ca b) Al c) F_2 d) H_2
- 11) Which of the following metals has the most negative value of standard electrode reduction potential?
a) Na b) Ca c) Mg d) K
- 12) In Daniel cell direction of electron flow is
a) Towards cathode b) Towards anode
c) Towards Zinc Electrode d) From copper to zinc electrode
- 13) Which of the following statements are true for a standard cell setup using the half cells below?
 $Ni^{2+}(aq)/Ni$ $E^\circ_{red} = -0.25V$ $Sn^{2+}(aq)/Sn$ $E^\circ_{red} = -0.14V$
a) Electrons flow in the external circuit from Sn to Ni.
b) The concentration of Sn^{2+} will decrease.
c) Oxidation occurs at the Sn terminal.
d) The cell cannot be formulated.
- 14) Among the following molecules, in which does bromine show the highest oxidation number?
a) $Hg_2(BrO_3)_2$ b) $BrCl$ c) $KBrO_4$ d) Br_2
- 15) The standard potential for the electrode reaction represented by the equation
 $Pb^{4+} + 2e^- \rightleftharpoons Pb^{2+}$ is +1.69 V. What may be deduced from this information alone?
a) Lead (IV) compounds can act as oxidizing agents.
b) Lead is more stable in +4 than +2 oxidation state.
c) $Pb(SO_4)_2$ will not exist, d) None of the above
- 16) Which of the following compounds will not conduct electricity in its aqueous solution?
a) Carbon tetrachloride b) Silver chloride
c) Sodium acetate d) Sulphuric Acid
- 17) The degree of ionization of a substance depends on
a) size of solute molecules b) Nature Of vessel used
c) Nature of solute molecules d) Quantity of electricity passed
- 18) Which of the following gas is produced at anode during electrolysis of aqueous sodium sulfate?
a) Oxygen b) Hydrogen c) Sulfur d) Water
- 19) When a Zn piece is placed in $CuSO_4$ solution, gets precipitated because
a) Standard reduction potential of Zn is more than that of Cu
b) Standard reduction of Zn is less than that of Cu
c) Atomic no. of Zn is larger than that of Cu d) Atomic no. of Zn is smaller than that of Cu
- 20) In an experimental set up for the measurement of EMF of a half cell using a reference electrode and a salt bridge, when the Salt bridge is removed, the voltage
a) Does not change. b) Decreases half the value.
c) Increases to a maximum d) Drops to zero.
- 21) Which of the following reaction is possible at anode?
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a) Cl_2 b) I^- c) I_2 d) Cl^-
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b) From the cathode to anode through the external circuit
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- 25) Which of the following substances is not an electrolyte?
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c) Always include a metallic product d) Include none of the above
- 28) The product obtained at the anode by the electrolysis of an aqueous solution of sulfuric acid is
a) Hydrogen b) Oxygen c) SO_2 d) No product is formed
- 29) Which of the following metals will not displace Cu from aqueous solution of $CuSO_4$?
a) Ag b) Zn c) Ni d) Fe
- 30) The most easily oxidizable species amongst the following is
a) Ca b) Al c) F_2 d) H_2
- 31) More electropositive elements have
a) Positive reduction potential b) Negative reduction potential
c) Tendency to gain electrons d) Negative oxidation potential
- 32) When a copper wire is placed in a solution of $AgNO_3$ the solution acquires blue color. This is due to the formation of
a) Cu^{2+} ions. b) Cu^+ ions. c) A soluble complex of Cu with $AgNO_3$ d) Cu^{2+} ions due to reduction of Cu.
- 33) In a cell containing zinc electrode and standard hydrogen electrode, the zinc electrode acts as
a) Anode b) Cathode c) A reduction center. d) None of these.
- 34) Which of the following solutions will conduct electricity quite well?
a) Glycerol b) HCl c) Sugar d) Pure water
- 35) Stronger the oxidizing power, greater is the
a) Reduction potential b) Ionic
c) Oxidation potential. d) None of these
- 36) The correct order of chemical reactivity with water according to electrochemical series is
a) $K > Mg > Zn > Cu$ b) $K > Zn > Mg > Cu$ c) $Mg > Zn > Cu > K$ d) $Cu > Zn > Mg > K$

- 37) Oxidation numbers of C in H_2CO_3 , CH_4 and diamond respectively are
a) +3, 4 and +4 b) +6, -4 and, zero c) +3, -4 and zero d) +6, +4 and +4
- 38) In an aqueous solution, hydrogen will not reduce
a) Ag^+ b) Cu^{2+} c) Zn^{3+} d) Fe^{3+}
- 39) Which of the following is strongest reducing agent?
a) Al b) Zn c) Cu d) Mg
- 40) A standard hydrogen electrode has zero electrode potential because
a) Hydrogen is easiest to oxidize
b) Hydrogen atom has only one electron
c) Its electrode potential assumed to be zero
d) Hydrogen is the lightest element
- 41) Of following metals, those that cannot be obtained by the electrolysis of the aqueous solution of their salts are
a) Ag and Mg b) Ag and Al c) Mg and Al d) Cu and Cr
- 42) Which of the following metal ions will discharge first at electrode?
a) K^+ b) Mg^{2+} c) Ca^{2+} d) Na^+
- 43) In a cell that utilizes the reaction $\text{Zn (s)} + 2\text{H}^+ (\text{aq}) \rightarrow \text{Zn}^{2+} (\text{aq}) + \text{H}_2 (\text{g})$. Addition of H_2SO_4 to cathode compartment will
a) Increase the E and shift the equilibrium to the left b) Lower the E and shift equilibrium to the right
c) Lower the E and shift the equilibrium to the left d) Increase the E and shift the equilibrium to the right
- 44) Standard reduction electrode potentials of three metals A, B and C are +0.5V, -0.3V and -1.2V respectively. The reducing power of these metals
a) $\text{B} > \text{C} > \text{A}$ b) $\text{A} > \text{B} > \text{C}$ c) $\text{C} > \text{B} > \text{A}$ d) $\text{A} > \text{C} > \text{B}$
- 45) In a hydrogen-oxygen fuel cell, combustion of hydrogen occurs to
a) Produce high purity water b) Generate heat
c) Remove adsorbed oxygen from electrode surfaces d) Create potential difference between the two electrodes
- 46) The metal which can be displaced by all other metals from its salt solution?
a) Ag b) Au c) Al d) Cu
- 47) When aluminum is coupled with Copper electrode in a galvanic cell
a) Reduction occurs at aluminum electrode b) Oxidation occurs at copper electrode
c) Reduction at copper electrode d) Aluminum deposits
- 48) The oxidation state of chromium is different in which of the following
a) CrO_3 b) CrCl_3 c) K_2CrO_4 d) $\text{K}_2\text{Cr}_2\text{O}_7$
- 49) Salt bridge is used in galvanic cells to:
a) Reduce the electrical resistance in the cell b) Complete the circuit
c) Separate cathodic solution to anodic solution d) Carry salts for chemical reactions to occur in the cell
- 50) Molten NaCl conducts electricity due to the presence of:
a) Free ions b) Free electron c) Free molecules d) Atoms of & chloride
- 51) Which one of the following statements is incorrect?
a) Oxidation always takes place at anode b) The standard reduction potentials are always taken as negative
c) Oxidation potential and reduction potential of an electrode are equal in magnitude d) Anode contain -ve charge in galvanic cell
- 52) Salt bridge transfers
a) Electrons b) Anion c) Current d) Ions
- 53) Greater value of standard reduction potential, smaller will be tendency
a) To form positive ions b) To form negative ions c) To gain electrons d) All are possible
- 54) In which of the following Sulfur Shows +4 oxidation state
A) H_2S B) H_2SO_3 C) $\text{Na}_2\text{S}_2\text{O}_3$ D) H_2SO_4
- 55) During electrolysis electrons are:
a) Lost b) Gained c) Gained by cations & lost by anions d) Lost by cations & gained by anions
- 56) Magnesium metal is extracted by the electrolysis of its:
a) concentrated aqueous solution of its chloride
b) Dilute aqueous solution of its chloride
c) Its fused chloride d) Any solution
- 57) Iron can be prevented from rusting by:
a) Connecting iron to more electropositive metal, a case of cathodic protection
b) Connecting iron to more electropositive metal, a case of anodic protection
c) Connecting iron to less electropositive metal, a case of anodic protection
d) Connecting iron to less electropositive metal, a case of cathodic protection
- 58) Electrochemical series is useful in:
a) Prediction of the feasibility of a chemical reaction b) Calculation of voltage
c) Comparison of the relative tendencies of the metals and non-metals to get oxidized or reduced d) All of the above
- 59) If the sum of E° values of the two half cells is negative, then:
a) reaction will be feasible b) reaction may or may not be feasible c) reaction will not be feasible d) No prediction can be made
- 60) In a galvanic cell, the electrode occupying a lower position in the electrochemical series:
a) Will act as a cathode b) reduction will take place on it c) Oxidation will take place on it d) Both a and b
- 61) Which of the following statement is true about galvanic cell:
a) anode is positively charged b) cathode is positively charged
c) Reduction occurs at anode d) oxidation occurs at cathode
- 62) Greater the value of the standard reduction potential of the given species:
a) Greater is tendency to accept electrons to give reduction
b) Greater is tendency to accept electrons to give oxidation
c) Greater is tendency to lose electrons to give reduction d) Greater tendency to lose electrons to give oxidation
- 63) Coinage metals have the least reactivity because they have:
a) Positive oxidation potential b) Zero oxidation potential c) Positive reduction potential d) Zero reduction potentials
- 64) Which of the following is a secondary cell:
a) Dry cell b) Ni-Cd cell c) Mercury cell d) Alkali cell
- 65) The oxidation potential of Mg and Al are +2.37 and 1.66V, respectively. The Mg in a chemical reaction:
a) Will be replaced by Al b) Won't be able to replace Al c) Will replace Al d) None of the above
- 66) Which can replace hydrogen from dilute acids?
a) Au b) Zn c) Pt d) None of these
- 67) The oxidation state of carbon-atom in glucose is:
a) +4 b) +6 c) -4 d) None of these
- 68) The ability of elements to act as reducing agent __ down to electrochemical series.
a) Increases b) Remain constant c) Decreases d) Depends upon the reaction conditions
- 69) If a strip of Cu-metals is placed in a solution of FeSO_4 then:
a) Cu will be deposited b) Cu and Fe both dissolve
c) Fe is precipitated d) No reaction occur
- 70) —All metal is extracted from its __ during electrolysis.
a) Chlorides b) Cryolite c) Oxides d) All of these
- 71) Halogens are placed at the lower level of electrochemical series, this indicates that:
a) Halogens are good reducing agents b) Halogens are an oxidizing agent but bad reducing agents
c) Halogens are good oxidizing agent as well as good reducing agents
d) All the above statements are correct
- 72) The electrolysis product of molten NaCl at electrodes:
a) Na and Cl_2 b) Na and NaOH c) H_2 and Cl_2 d) H_2 , Cl_2 , and NaOH

- 73) SHE acts as an anode when connected with Cu electrode but cathode with Zn electrode because:
 a) Zn has less reduction potential than hydrogen and Cu more
 b) Zn has less oxidizing potential than hydrogen and Cu more
 c) Zn is above in electrochemical series than hydrogen and Cu below
 d) All the above are possible reasons
- 74) When an element is in contact with 1M aqueous solution of its own ions, at 298K then the potential is called?
 a) Standard reduction potential b) Reduction potential c) Standard electrode potential d) Both a and c
- 75) Gold and silver are the least reactive due to:
 a) Positive oxidation potential b) Zero oxidation potential
 c) Positive reduction potential d) Having a large negative electrode potential
- 76) During the electrolysis of aqueous KNO_3 , H_2 is produced at cathode instead of potassium due to:
 a) The reduction potential of K is greater than hydrogen
 b) Hydrogen is more reactive than potassium
 c) The reduction potential of potassium is less than hydrogen
 d) All of the above are possible reasons
- 77) Which of the following statement is correct?
 a) Zn can replace Cu^{2+} in CuSO_4 b) Cu can replace H^+ in H_2SO_4
 c) Cu can replace Zn^{2+} in ZnSO_4 d) None of these
- 78) In a reaction $\text{Zn} + \text{HNO}_3 \rightarrow \text{Zn}(\text{NO}_3)_2 + \text{NO} + \text{H}_2\text{O}$:
 a) Zn is reduced b) N is oxidized c) N is reduced d) Hydrogen is reduced
- 79) Which one metal shows the maximum oxidation state?
 a) Mn b) Ag c) Cr d) Hg
- 80) In which of the following there is a transfer of five electrons
 (a) $\text{MnO}^{2-} \rightarrow \text{MnO}$ (b) $\text{MnO}^- \rightarrow \text{Mn}^{+2}$ (c) $\text{CrO}^{2-} \rightarrow \text{Cr}^{+3}$ (d) None
- 81) Sulphur has the highest oxidation state in
 (a) SO_2 (b) SO_3 (c) H_2S (d) H_2SO_3
- 82) For the Reaction: $\text{Cr} + \text{Fe}^{+3} \rightarrow \text{Cr}^{+3} + \text{Fe}$
 (a) Cr is oxidizing agent (b) Fe is the Cathode
 (c) Fe^{+3} is reducing agent d) all
- 83) The best reducing agent is:
 (a) F (b) Cl^- (c) Br (d) I
- 84) In $4\text{Fe} + 3\text{O}_2 \rightarrow 2\text{Fe}_2\text{O}_3$ Iron is:
 (a) Reduced (b) Oxidized (c) Hydrolyzed (d) None
- 85) When Pb accumulator is recharged then density of H_2SO_4 is
 (a) 2.15 g/cm^3 (b) 1.81 g/cm^3 (c) 1.25 g/cm^3 (d) 1.15 g/cm^3
- 86) Electrolyte used in fuel cell is:
 (a) Aq NaOH (b) Molten NaCl (c) KOH (d) NaNO_3
- 87) F_2 has reduction potential value
 (a) -2.87 V (b) $+2.87 \text{ V}$ (c) -3.87 V (d) $+3.87 \text{ V}$
- 88) The oxidation number of oxygen in OF_2 is ____
 a) -2 b) +1 c) +2 d) -1
- 89) In voltaic cell anode is
 a) positively charge (b) negatively charge
 c) may be positive or negative d) None of these
- 90) The electrode where reduction occurs is
 a) anode (b) cathode
 c) Both a & b d) None of these
- 91) In electrolytic cell reaction occur
 a) spontaneous b) Non spontaneous
 c) Both a & b d) None of these
- 92) The products in electrolysis of ____ are not predictable.
 a) fused salt electrolysis b) aqueous solution of salts c) Both a & b
 d) None of these
- 93) Oxidation of OH^- ion at anode produces.
 a) hydrogen (b) oxygen c) Both a & b d) None of these
- 94) In voltaic cell
 a) chemical energy changes to electrical b) Both chemical and electrical energy used
 c) only electrical energy is used d) None of these
- 95) Copper has the oxidation potential value
 a) +0.34 (b) -0.34 c) +0.76 d) -0.76
- 96) To balance equation by ion electron method added to balance hydrogen and oxygen in basic medium.
 a) H^+ , H_2O b) OH^- ions c) H_2O d) Both b & c
- 97) The movement of ionic charges in liquid by the supply of electric current is called.
 a) metallic conduction b) spontaneous movement
 c) electricity d) None of these
- 98) Caustic soda is prepared by the electrolysis of
 a) fused NaCl (b) aqueous solution of NaCl c) Both a & b d) None of these
- 99) The value of oxidation & reduction potential are
 a) same b) different c) sign is changed d) a & c
- 100) If the strip of Zinc is placed in Cu^{++} solution, then.
 a) blue color of copper remains in solution b) No reaction
 c) blue color discharged d) None of these
- 101) Study which deals the conversion of electrical energy to chemical energy & vice versa is:
 a) Thermo-Chemistry b) Bio-Chemistry
 c) Electro-Chemistry d) Reaction Kinetics
- 102) Which cell is used to prepare caustic soda on industrial scale?
 a) Down Cell b) Galvanic Cell c) Nelson Cell d) Voltaic Cell
- 103) Which of the followings contains nitrogen with an oxidation state
 (a) NH_3 (b) NO_2 (c) NH^+ (d) HNO_3
- 104) In which compound the oxidation number of Mn is +6
 (a) MnO (b) MnO_2 (c) K_2MnO_4 (d) KMnO_4
- 105) In which compound the oxidation state of chlorine is +5
 (a) NaClO_2 (b) NaClO_3 (c) HOCl (d) NaCl
- 106) Which is the oxidation state of F in OF_2
 (a) -2 (b) +2 (c) -1 (d) +7
- 107) Oxidation number of chlorine in Cl_2 is always
 (a) 0 (b) -1 (c) +7 (d) +5
- 108) Oxidation number of C in CH_2Cl_2 is
 (a) +2 (b) +4 (c) +4 (d) 0
- 109) When aqueous NaCl is electrolysed, which of the following ions get discharged at anode
 (a) Na^+ (b) H^+ (c) OH^- (d) Cl^-
- 110) Which cells are used for Electroplating Process?
 a) Galvanic Cells b) Voltaic Cells
 c) Electrolytic Cells d) Both 'a' & 'b'
- 111) A cell in which chemical reaction takes place at the expense of electrical energy is termed as:
 a) Voltaic Cell b) Galvanic Cell c) Both 'a' & 'b' d) Electrolytic Cell
- 112) Which cell produces Electrical Energy at the expense of Chemical Energy?
 a) Nelson Cell b) Down Cell c) NICAD Cell d) All
- 113) Which is used to predict feasibility of a chemical reaction?
 a) Standard Hydrogen Electrode b) Oxidation Number Method
 c) Electrochemical Series d) Galvanic Cells
- 114) Which doesn't include in Modern Batteries?
 a) NICAD Battery b) Alkaline Battery
 c) Silver Oxide Battery d) None
- 115) On which electrode oxidation reaction takes place?
 a) Anode Electrode b) Cathode Electrode c) Electrolyte d) All
- 116) Oxidation Number of Carbon in CO_2 is:
 a) +03 (b) +04 c) +05 d) +06
- 117) Spontaneous Redox reactions take place in:
 a) Electrolytic Cell b) Nelson Cell c) Voltaic Cell d) All
- 118) Stronger the oxidizing agent, greater is the:
 (a) Oxidation potential (b) Reduction potential
 (c) E.M.E of cell d) all
- 119) A standard hydrogen electrode consists of:
 (a) 1M HCl Solution (b) H_2 gas at 1atm pressure
 (c) Pt-electrode (d) All of these

- 120) A single cell voltage in lead-storage battery is:
(a) 1.0 volts (b) 1.5 volts (c) 2.0 volts (d) 12 volts
- 121) All the cells have alkaline electrolyte except:
(a) Ni-Cd Cell (b) Ag₂O battery (c) Lead accumulator (d) Alkaline battery
- 122) Aqueous solution of NaCl is electrolyzed using inert electrodes of Pt or graphite. The products at electrodes are:
(a) Na(s) / Cl₂(g) (b) H₂ / Cl₂ (c) NaOH / Cl₂ (d) All of these
- 123) Which one of the followings metal cannot displace H₂ gas from acids:
(a) Zn (b) Mg (c) Mg (d) Cu
- 124) If a strip of Cu metal is placed in a solution of FeSO₄:
(a) Cu will be deposited (b) Fe is precipitated out
(c) Cu and Fe both dissolve (d) No reaction takes place
- 125) A solution of sodium sulphate was electrolyzed using some inert electrodes. The products at the electrodes are
(a) O₂, H₂ (b) O₂, Na (c) O₂, SO₂ (d) O₂, S₂O₂²⁻
- 126) Coinage metals are reactive:
(a) least (b) most (c) moderate (d) none of these
- 127) Out of Cu, Ag, Fe and Zn the metal which can displace all other from their salt solutions is
(a) Ag (b) Cu (c) Zn (d) Fe
- 128) The conductivity of strong electrolyte
(a) Increases on dilution (b) Does not change on dilution (c) Decreases on dilution (d) Depends on its density
- 129) For 12 V in lead accumulator __ cells are connected.
(a) 2 (b) 6 (c) 9 (d) 2
- 130) Which of the following is the use of electrolysis?
(a) Extraction of metals (b) Electroplating (c) Both A and B (d) None of the above
- 131) Which is the strongest reducing agent:
(a) Zn(s) (b) Cr(s) (c) H₂(g) (d) Fe³⁺(aq)
- 132) Cr is placed above hydrogen in electrochemical series it has reduction potential than hydrogen.
(a) higher (b) lower (c) equal (d) none
- 133) Which is the strongest oxidizing agent in F₂, Cl₂, Br₂
(a) F₂ (b) Cl₂ (c) Br₂ (d) all are equal
- 134) In fuel cell __ react in presence of KOH.
(a) ZnO, MnO₂ (b) CuSO₄, KCl (c) HgCl₂ (d) H₂, O₂
- 135) Conductivity is due to flow of electrons in:
(a) Ionic solids (b) Covalent solids (c) Metallic solids (d) Molecular solids
- 136) If the salt bridge is not used between two half cells then voltage
(a) Decreases rapidly (b) decreases slowly (c) does not change (d) drops to zero
- 137) Which of the following is non-rechargeable battery
(a) NICAD (b) Alkaline battery (c) Fuel cell (d) none
- 138) Using inert electrodes like Pt or graphite the electrolysis of aqueous sodium chloride produces at cathode
(a) Cl₂ gas (b) H₂ gas (c) O₂ gas (d) HCl gas
- 139) In the presence of copper electrodes the electrolysis of aqueous CuSO₄ produces at cathode
(a) H₂ gas (b) O₂ gas (c) SO₂ gas (d) Cu metal
- 140) The cathodic reaction in the electrolysis of dil. H₂SO₄ with Pt electrodes
(a) reduction (b) oxidation (c) both oxidation and reduction (d) neither oxidation or reduction
- 141) Passage of electric current through the metals is due to
(a) oxidation reaction (b) reduction reaction (c) electrolysis (d) free movement of electrons
- 142) In the electrolysis of aqueous solution of sodium nitrate, the ions which are reduced at the cathode are
(a) H₃O⁺ (b) Na⁺ (c) OH⁻ (d) NO⁻
- 143) 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
- 144) SHE can be used as..
(a) Only anode (b) Only cathode
(c) Both anode and cathode (d) Neither anode nor cathode
- 145) Which of the following is not the application of electrolysis
(a) extraction of metals (b) preparation of NaOH (c) electroplating (d) none of these
- 146) During the electrolytic purification of Cu, the impure copper is made as
(a) anode (b) cathode (c) anode and cathode (d) none of these
- 147) Nelson cell and Down cell are examples
(a) electrolytic cell (b) galvanic cell (c) voltaic cell (d) none of these
- 148) Hall-Beroult process is used to extract from its oxide
(a) Na (b) Mg (c) Ca (d) Al
- 149) In electrochemical cell, the reactive metal acts as ----- and less reactive metal acts as-----
(a) anode, cathode (b) cathode, anode
(c) anode, electrolyte (d) cathode, electrolyte
- 150) Which of the following cell can be reversed?
(a) nelson cell (b) down cell
(c) Daniel cell (d) all of these
- 151) EMF of Daniel cell is
(a) 1.0 volts (b) 1.5 volts (c) 2.0 volts (d) 1.1 volts
- 152) In SHE, Pt-wire is used for
(a) electrolyte (b) electrode (c) both (d) none of these
- 153) If cell potential is negative then reaction is
(a) spontaneous (b) non-spontaneous
(c) feasible (d) both a and c
- 154) Group IA metals are reactive than IIA metals
(a) more (b) less (c) equal (d) no relation
- 155) The electrolyte in lead accumulator is
(a) 30% H₂SO₄ (b) 4.5MH₂SO₄
(c) both a and b (d) none of these
- 156) What is the density of lead accumulator in its discharged state?
(a) 1.25 kgcm⁻³ (b) 1.25 gcm⁻³
(c) 1.15 kgcm⁻³ (d) 1.15 gcm⁻³
- 157) Which one is the example of primary cell
(a) alkaline battery (b) silver oxide battery
(c) dry cell (d) all of these
- 158) The EMF of Ni-Cd cell is
(a) 2V (b) 1.5V (c) 1.4V (d) none of these
- 159) Silver oxide battery is used in
(a) electronic watches (b) auto exposure cameras
(c) electronic calculators (d) all of these
- 160) Fuel cell converts % of fuel bond energy into electricity
(a) 70% (b) 75% (c) 80% (d) none of these
- 161) The cathode in NICAD cell is
(a) Ag₂O (b) NiO₂ (c) Cd (d) Zn
- 162) Solid conductors conduct electricity due to
(a) free electrons (b) free ions
(c) both a and b (d) none of these
- 163) Pure water is a electrolyte
(a) strong (b) weak (c) very strong (d) non-electrolyte
- 164) Which is not an electrolyte
(a) NaCl(s) (b) NaBr(l) (c) CuSO₄(aq) (d) none of these
- 165) Salt bridge may consist of in a gel
(a) KCl (b) KNO₃ (c) K₂SO₄ (d) all of these
- 166) NICAD cell is used in
(a) Cordless razor (b) photoflash units
(c) portable computers (d) all of these