

51. Which of the following is an inert gas ?
 (a) H_2 (b) O_2
 (c) N_2 (d) Argon
52. If 0.1M of a weak acid is taken and its percentage of degree of ionization is 1.34%, then its ionization constant will be :
 (a) 0.8×10^{-5} (b) 1.79×10^{-5}
 (c) 0.182×10^{-5} (d) none of these
53. If a substance with half-life 3 days is taken at other place in 12 days, what amount of substance is left now ?
 (a) 1/4 (b) 1/8
 (c) 1/16 (d) 1/32
54. To prepare a solution of concentration of 0.03 g/mL of $AgNO_3$, what amount of $AgNO_3$ should be added in 60 mL of solution ?
 (a) 1.8 g (b) 0.8 g
 (c) 0.18 g (d) none of these
55. How will you separate a solution (miscible) of benzene + $CHCl_3$?
 (a) Sublimation (b) Filtration
 (c) Distillation (d) Crystallisation
56. When alcohol reacts with concentrated H_2SO_4 , intermediate compound formed is :
 (a) carbonium ion
 (b) alkoxy ion
 (c) alkyl hydrogen sulphate
 (d) none of the above
57. According to law of mass action rate of a chemical reaction is proportional to :
 (a) concentration of reactants
 (b) molar concentration of reactants
 (c) concentration of products
 (d) molar concentration of products
58. In Hall's process the main reagent is mixed with :
 (a) NaF (b) Na_3AlF_6
 (c) AlF_3 (d) none of these
59. In electrolysis of dilute H_2SO_4 , what is liberated at anode ?
 (a) H_2 (b) SO_4^{2-}
 (c) SO_2 (d) O_2
60. A gas can be liquefied :
 (a) above its critical temperature
 (b) at its critical temperature
 (c) below its critical temperature
 (d) at any temperature
61. Which of the following is hypnotic ?
 (a) Acetaldehyde (b) Paraldehyde
 (c) Metaldehyde (d) None of these
62. By which of the following process permanent hardness of water can be removed, by adding ?
 (a) Soda lime (b) Sodium bicarbonate
 (c) Washing soda (d) Sodium chloride
63. Vinegar obtained from sugarcane has :
 (a) CH_3COOH (b) $HCOOH$
 (c) C_6H_5COOH (d) CH_3CH_2COOH
64. What is the packet of energy called ?
 (a) Electron (b) Photon
 (c) Positron (d) Proton
65. When an acid cell is charged then :
 (a) voltage of cell increases
 (b) electrolyte of cell dilutes
 (c) resistance of cell increases
 (d) none of the above
66. NaOH is prepared by the method :
 (a) Down cell (b) Castner cell
 (c) Solvay process (d) Castner-Kellner cell
67. When toluene is treated with $KMnO_4$, what is produced ?
 (a) Benzene (b) Chlorobenzene
 (c) Benzaldehyde (d) Benzoic acid
68. Solder is an alloy of :
 (a) 70% lead, 30% tin
 (b) 30% lead, 70% tin
 (c) 80% lead, 20% tin
 (d) 90% copper, 10% tin
69. Carboic acid is :
 (a) C_6H_5CHO (b) C_6H_6
 (c) C_6H_5COOH (d) C_6H_5OH
70. Alcohols are isomeric with :
 (a) acids (b) ethers
 (c) esters (d) aldehydes

71. The groups linkage present in fats is :
 (a) peptide linkage
 (b) ester linkage
 (c) glycosidic linkage
 (d) none of the above
72. The group present in waxes are :
 (a) acid group (b) ester group
 (c) alcohol group (d) ether group
73. Which of the following is liquid at room temperature ?
 (a) CH_3I — 66°C , 42°C
 (b) CH_3Br — 94°C , 3°C
 (c) $\text{C}_2\text{H}_5\text{Cl}$ — 139°C , 12°C
 (d) CH_3F — 115°C , 78°C
74. Which gas is liberated when Al_4Cl_3 is hydrolysed ?
 (a) CH_4 (b) C_2H_2
 (c) C_2H_6 (d) CO_2
75. The only alcohol that cannot be prepared by the indirect hydration of alkene is :
 (a) ethyl alcohol (b) propyl alcohol
 (c) isobutyl alcohol (d) methyl alcohol
76. Baking powder is :
 (a) NaHCO_3 (b) $\text{NaHCO}_3 \cdot 6\text{H}_2\text{O}$
 (c) Na_2CO_3 (d) $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$
77. When washing soda is heated :
 (a) CO is released
 (b) $\text{CO} + \text{CO}_2$ is released
 (c) CO_2 is released
 (d) water vapour is released
78. Which of the following attacks glass ?
 (a) HCl (b) HF
 (c) HI (d) HBr
79. A colourless gas with the smell of rotten fish is :
 (a) H_2S (b) PH_3
 (c) SO_2 (d) none of these
80. Salicylic acid is prepared from phenol by :
 (a) Reimer-Tiemann reaction
 (b) Kolbe's reaction
 (c) Kolbe-electrolysis reaction
 (d) none of the above
81. Lucas test is done for :
 (a) alkyl halides (b) alcohols
 (c) acids (d) aldehydes
82. Hydrogen can be fused to form helium at :
 (a) high temperature and high pressure
 (b) high temperature and low pressure
 (c) low temperature and high pressure
 (d) low temperature and low pressure
83. When CO_2 is bubbled through a solution of barium peroxide in water :
 (a) O_2 is released
 (b) carbonic acid is formed
 (c) H_2O_2 is formed
 (d) no reaction occurs
84. The most important ore of tin is :
 (a) cassiterite (b) cryolite
 (c) cerussite (d) none of these
85. Heating of ore in presence of air to remove sulphur impurities is called :
 (a) calcination (b) roasting
 (c) smelting (d) none of these
86. $\text{CaCO}_3 \rightleftharpoons \text{CaO} + \text{CO}_2$ reaction in a line goes to completion because :
 (a) CaO does not react to CO_2 to give CaCO_3
 (b) backward reaction is very low
 (c) CO_2 formed escapes out
 (d) none of the above
87. If 30 mL of H_2 and 20 mL of O_2 reacts to form water, what is left at the end of the reaction ?
 (a) 10 mL of H_2 (b) 5 mL of H_2
 (c) 10 mL of O_2 (d) 5 mL of O_2
88. Which of the following is a highly corrosive salt ?
 (a) FeCl_2 (b) PbCl_2
 (c) Hg_2Cl_2 (d) HgCl_2
89. 0.5 M of H_2SO_4 is diluted from 1 L to 10 L, normality of resulting solution is :
 (a) 1 N (b) 0.1 N
 (c) 10 N (d) 11 N
90. Formula for tear gas is :
 (a) COCl_2 (b) CCl_3NO_2
 (c) N_2O (d) none of these
91. Which of the following is potassium ferricyanide ?
 (a) $[\text{K}_4[\text{Fe}(\text{CN})_6]]$ (b) $[\text{K}_3[\text{Fe}(\text{CN})_6]]$
 (c) $[\text{K}_3[\text{Fe}(\text{CN})_3]]$ (d) $[\text{K}_3[\text{Fe}(\text{CN})_4]]$
92. Sodium nitroprusside when added to an alkaline solution of sulphide ions produce a :
 (a) red colouration
 (b) blue colouration
 (c) purple colouration
 (d) brown colouration
93. The product obtained on reaction of $\text{C}_2\text{H}_5\text{Cl}$ with hydrogen over palladium carbon is :
 (a) C_3H_8 (b) C_4H_{10}
 (c) C_2H_6 (d) C_2H_4

94. A solution has pH = 5, it is diluted 100 times, then it will become :
- (a) neutral (b) basic
(c) unaffected (d) more acidic
95. Ketones react with Mg - Hg over water gives :
- (a) pinacolone (b) pinacols
(c) alcohols (d) none of these
96. X is heated with soda lime and gives ethane. X is :
- (a) ethanoic acid (b) methanoic acid
(c) propanoic acid (d) either (a) or (c)
97. Which is used to produce smoke screens ?
- (a) Calcium phosphide
(b) Zinc sulphide
(c) Sodium carbonate
(d) Zinc phosphide
98. The conversion of maltose to glucose is possible by the enzyme :
- (a) zymase (b) lactase
(c) maltase (d) diastase
99. The product obtained on fusion of BaSO_4 and Na_2CO_3 is :
- (a) BaCO_3 (b) BaO
(c) Ba(OH)_2 (d) BaHSO_4
100. A 5 molar solution of H_2SO_4 is diluted from 1 L to 10 L. What is the normality of the solution ?
- (a) 0.25 N (b) 1 N
(c) 2 N (d) 7 N

Answer Key

51. d	52. b	53. c	54. a	55. c	56. a	57. b	58. b	59. d	60. c
61. b	62. c	63. a	64. b	65. a	66. d	67. d	68. b	69. d	70. b
71. b	72. b	73. a	74. a	75. d	76. a	77. d	78. b	79. b	80. a
81. b	82. a	83. c	84. a	85. b	86. c	87. d	88. d	89. b	90. b
91. b	92. c	93. c	94. a	95. b	96. c	97. a	98. c	99. a	100. b