CHEMISTRY

BOOKS - MODERN PUBLICATION

TEST PAPER 1

Exercise

1. Galvanised iron sheets have coating of :

A. Cr

B. Cu

C. Zn

D. Pb

Answer: C

 Watch Video Solution

2. Number of particles per unit cell of fcc Crystal is:

A. 2

B. 4

C. 8

D. 12

Answer: B

 Watch Video Solution

3. which one acts as a poison to finely divided Fe in Haber's process for the manufacture of NH_3?

A. CO_2

B. NO

C. CO

D. N_2

Answer: C

Watch Video Solution

4. In XeF_2 , xeF_4 and XeF_6 the number of lone pairs and Xe is respectively.

A. 2,3,1

B. 1,2,3

C. 4,1,2

D. 3,2,1

Answer: D

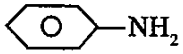
Watch Video Solution

5. Which of the following is most basic

A. CH_3NH_2

B. $(CH_3)_3N$

C. $(CH_3)_2NH$

D. (iv)  NH_2

Answer: C

Watch Video Solution

6. 1% solution of phenol is used as :

A. Disinfectant

B. Insecticide

C. Anesthetic

D. Antipyretics

Answer: A

Watch Video Solution

7. Which of the following is a condensation polymer?

A. Teflon

B. Acrylonitrile

C. Dacron

D. Neoprene

Answer: C

Watch Video Solution

8. Give one example of unimolecular reaction.

Watch Video Solution

9. what is the IUPAC name of formaldehyde?

Watch Video Solution

10. What is the chemical name of vitaminC?

Watch Video Solution

11. what type of semiconductor is obtained when silicon is doped with arsenic?

Watch Video Solution

12. Two solutions having same osmotic pressure are called _____ solution .

Watch Video Solution

13. The scattering of light on the surface of colloidal particle is _____.

Watch Video Solution

14. Nickel is refined by _____process.

Watch Video Solution

15. write the main reason for the stability of colloidal sols.

Watch Video Solution

16. Define ferrimagnetic substance.

Watch Video Solution

17. write van't Hoff equation name the method used for measuring osmotic pressure.

Watch Video Solution

18. why do colloidal solutions exhibit Tyndall effect?

Watch Video Solution

19. Is it safe to stir $1MAgNO_3$ solution with a copper spoon ? Given $E^{\circ}_{Ag^{+}/Ag=0.89v}$, $E^{\circ}_{Cu^{2}+/Cu} = 0.34v.$

Watch Video Solution

20. What is meant by carbon reduction and electrolytic reduction with examples? What is the role of flux in the metallurgical operation? Name one mineral that can be used as a flux and describe its working.

Watch Video Solution

21. why does $R_3P = O$ exist but $R_3N = O$ does not exist?

Watch Video Solution

22. Why is BiH_3, the strongest reducing agent among all hydrides of group-15 elements?

Watch Video Solution

23. Write the formula of the compound Potassium pentacyanonitrosyl ferrate (III).

Watch Video Solution

24. What is O/W emulsion ? Give one example .

Watch Video Solution

25. Give reason: Zinc oxide becomes yellow on heating

Watch Video Solution

26. What are tranquilizers? Give two examples.

 Watch Video Solution

27. Define electrolyte and give an example.

 Watch Video Solution

28. Name the reagents used in Acetal dehyde to isopropyl alcohol.

Watch Video Solution

29. How do you get ethanenitrile from acetamide?

Watch Video Solution

30. How can you convert ethanol to methanol ?

Watch Video Solution

31. How can you distinguish between phenol and benzoic acid?

Watch Video Solution

32. What is Teflon ? Write two of its uses.

Watch Video Solution

33. What are antipyretics? Give two examples.

Watch Video Solution

34. Explain the side effects of drugs.

Watch Video Solution

35. What do you mean by molecularity and order of reaction? Give one example each of the first and second order reaction.

Watch Video Solution

36. The half Life period of a first order reaction is 100 sec calculate the time required for 80% completion..

Watch Video Solution

37. Discuss the process of conversion of Ores into oxides by (1) calcination and(2) roasting

Watch Video Solution

38. What is the role of depressant in froth flotation process ?

Watch Video Solution

39. What are the characterstics of the transition elements and why are they called transition elements ? Which of the d-block elements may not be regarded as the transition elements ?

Watch Video Solution

40. Discuss the general characteristics properties of transition elements.

Watch Video Solution

41. What is Cannizzaro's reaction? Give equation.

Watch Video Solution

42. Write short notes on: Aldol condensation reaction.

Watch Video Solution

43. Discuss Reimer-Tiemann reaction.

Watch Video Solution

44. Give two methods of preparation of aniline

Watch Video Solution

45. How does methyl amine react with (1) CH_3I , (2) CH_3COCl , (3) nitrous acid?

Watch Video Solution

46. The number of geometrical isomers of the complex $\left[PtCl_2(NH_3)_2\right]$ is :

A. 2

B. 4

C. 3

D. 0

Answer: B

 Watch Video Solution

47. CsBr has bcc structure with edge length 4.3. The shortest inter ionic distance in between Cs^+ and Br^- is :

A. 3.72Å

B. 1.86Å

C. 4.3Å

D. 7.44A

Answer: A

 Watch Video Solution

48. The amount of energy expanded during the passage of one ampere current for 100 second under a potential of 115 V is:

A. 0.115kJ

B. 11.5kJ

C. 20kJ

D. 115B

Answer: B

Watch Video Solution

49. In the synthesis of NH_3 by Haber's process, catalyst is ___and promoter is_____.

A. Mo

B. Ni

C. Fe

D. Mn

Answer: C

Watch Video Solution

50. The reaction of acetaldehyde with $Ba(OH)_2$ solution is known as -

A. (i) Aldol condensation

B. (ii) Oxidation reaction

C. (iii) Cannizzaro's reaction

D. (iv) Clairen—Schmidtreaction

Answer:

Watch Video Solution

51. Female sex hormones are known as :

A. (i) androgens

B. (ii) estrogens

C. (iii) progestins

D. (iv) corticosteroids

Answer:

Watch Video Solution

52. Isopropyl alcohol on oxidation gives:

A. (i) Acetone

B. (ii) Acetaldehyde

C. (iii) Ethylene

D. (iv) Ether

Answer:

Watch Video Solution

53. What type of stoichiometric defect is shown by ZnS?

Watch Video Solution

54. Give an example of macromolecular colloid.

Watch Video Solution

55. What is Hinsberg reagent?

Watch Video Solution

56. Write one use of streptomycin.

Watch Video Solution

57. ———- becomes paramagnetic from ferrimagnetic at 850 K.

Watch Video Solution

58. 1 Faraday of electricity is _____ coulomb.

Watch Video Solution

59. Alkaline hydrolysis of ester is an example of

Watch Video Solution

60. Convert aniline to 1, 3,5-tribromobenzene.

Watch Video Solution

61. Crystalline solids anisotropic in nature. What does this statement mean ?

Watch Video Solution

62. What is reverse osmosis ?

Watch Video Solution

63. What is corrosion ? What are the factors which affect corrosion? CO_2 is always present in natural water.

Explain its effect (increases, stops or no effect on rusting of iron.

Watch Video Solution

64. Define threshold energy and activation energy. How are they related ?

Watch Video Solution

65. What do you meant by activity and selectivity of the catalyst?

Watch Video Solution

66. SF_6 is known but SCl_6 is not. Why?

Watch Video Solution

67. Match the following columns

(h) Correctly match column I and II.

	I		II
(i)	Enzyme	(p)	Caprolactam
(ii)	H – CHO	(q)	Canizzaro's reaction
(iii)	Nylon – 6	(r)	impure iron
(iv)	Pig iron	(s)	catalyst

Watch Video Solution

68. Why do compounds having similar geometry have different magnetic moment?

Watch Video Solution

69. What are the forces involved in holding the drugs to the active site of enzymes ?

Watch Video Solution

70. Explain the amphoteric behaviour of amino acids.

Watch Video Solution

71. Calculate packing étficiency of a face centred cubic metal crystal.

Watch Video Solution

72. Represent in $Cu - AgNO_3$ cell and write the net cell reaction.

Watch Video Solution

73. What happens when acetamide is boiled with NaOH solution?

Watch Video Solution

74. When ferric chloride is treated with potassium ferrocyanide, we get:

Watch Video Solution

75. Elucidate the differences between soaps and detergents.

Watch Video Solution

76. Explain the order of reactivity of 1^0 ,2^0 and 3^0 alcohols with sodium metal.

Watch Video Solution

77. Which transition metal cation has maximum unpaired electrons ?

Watch Video Solution

78. How does acetic acid reacts with •Iorine and phosphorus ? Give equation.

Watch Video Solution

79. While antacids and antiallergic drugs interfere with the function of histamines, why do these not interfere with the function of each other?

Watch Video Solution

80. State Kohlrausch's law. Discuss with an example .

Watch Video Solution

81. The expression for Raoult's Law containing non volatile solute is –

Watch Video Solution

82. How would you justify that the relative lowering in vapour pressure is a colligative property ?

Watch Video Solution

83. How is sulphur dioxide prepared in the laboratory ? How does it react with

hot Mg ribbon

Watch Video Solution

84. Give any two physical and three chemical properties of HCl with equations.

Watch Video Solution

85. Give a brief account of Werner's co-ordination theory.

Watch Video Solution

86. Give a brief account of Werner's co-ordination theory.

Watch Video Solution

87. Give two methods Of preparation of acetone.

 Watch Video Solution

88. How does acetone react with (i) HCN (ii) phenyl hydrazine (iii) I_2 and $NaOH$.

 Watch Video Solution

89. Phenol is heated with $CCl4$ and alkaline KOH to form salicylic acid. The reqction is known as :

A. Friedel Craft reaction

B. ROsenrhund reaction

C. Reimer-Tiemann reaction

D. Perkin's reaction

Answer: C

Watch Video Solution

90. The vapour pressure of benzene at $90^\circ C$ is 1020 torr. A solution of 5 g of a solute in 58.5 g benzene has vapour pressure 990 torr. The molecular weight of the solute is:

A. 78

B. 178

C. 205

D. 220

Answer: D

Watch Video Solution

91. The atomic weight of Al is 27. When a current of 5 Faraday is passed through a solution of Al^{3+} ions, the wt. of Al depostited is :

A. 9 g

B. 27 g

C. 36 g

D. 45g

Answer: D

Watch Video Solution

92. Which element occurs in free state :

A. Fe

B. Co

C. Pt

D. Ni

Answer: C

Watch Video Solution

93. The number of geometrical isomers of, $\left[Co(NH_3)_3(NO_2)_3\right]$ are:

A. 2

B. 4

C. 3

D. 0

Answer: A

Watch Video Solution

94. Acetanilide is obtained by the reaction of acetyl chloride with:

A. acetamide

B. aniline

C. acetaldehyde

D. phenol

Answer: B

Watch Video Solution

95. The product formed by the reaction of an aldehyde with a primary amine is :

A. Aromatic acid

B. Schiff base

C. Ketone

D. Carboxylic acid

Answer: B

Watch Video Solution

96. Between $[CoF6]^{3-}$ and $\left[Co(NH_3)_6\right]^{3+}$ which one is a high spin complex ?

Watch Video Solution

97. What is the monomer of neoprene ?

Watch Video Solution

98. Name the main female sex hormone

Watch Video Solution

99. Name the monomer of nylon-6.

Watch Video Solution

100. $K_3\left[Co(NO_2)_6\right]$ is :

Watch Video Solution

101. The magnetism arises due to alignment of magnetic moments of domains in the same direction is

Watch Video Solution

102. Calcium salt of all acids except formic acid as dry distillation gives_____

Watch Video Solution

103. Define chelating ligand. Give an example.

Watch Video Solution

104. What causes Brownian movement in colloidal solution ?

Watch Video Solution

105. Explain ferromagnetism, anti-ferromagnetism and ferrimagnetism ?

Watch Video Solution

106. When a current of strength 3 amperes is passed through silver nitrate solution for 20 minutes 4 gms of silver metal is deposited. What is the ECE of silver ?

Watch Video Solution

107. What the effect of temperature on rate constant ?

Watch Video Solution

108. What method is used for refining Zr and Ti? Explain with equation.

Watch Video Solution

109. What are the drawbacks of Werner's co-ordination theory ?

Watch Video Solution

110. What are functional isomers exhibited by C_3H_6O ?

Watch Video Solution

111. Give a chemical test to distinguish between ethyl alcohol and methyl alcohol.

Watch Video Solution

112. If water contains dissolved calcium hydrogen carbonate (or Ca^{2+} ions) out of

soaps and synthetic detergents, which one will you use for cleansing clothes ?

Watch Video Solution

113. $\left[Fe(NH_3)_6\right]^{2+}$ and $\left[Fe(H_2O)_6\right]^{2+}$ are of different colours in dilute solution. Why ?

Watch Video Solution

114. What is difference between physisorption and chemisorption ?

Watch Video Solution

115. What is Cannizzaro's reaction? Give equation.

Watch Video Solution

116. What are hormones ?

Watch Video Solution

117. Give important differences between lanthanides and actinides.

Watch Video Solution

118. Explain, why phenol is acidic, while ethyl alcohol is neutral.

Watch Video Solution

119. Which is more acidic between formic acid and acetic acid ? Explain.

Watch Video Solution

120. How does acetaldehyde react with Phenyl hydrazine ?

Watch Video Solution

121. Write the principle of preparation of Neoprene.

Watch Video Solution

122. Explain the terms "Target molecules or drug targets" as used in medicinal chemisty.

Watch Video Solution

123. Write notes on :

A. Hiensberg's test for amines

B. Reimer-Tiemann reaction

C. Diazo coupling reaction

D.

Answer:

Watch Video Solution

124. How can acetaldehyde be prepared from actyl chloride and acetylene?

A. Acetyl chloride

B. Acetylene

C.

D.

Answer:

Watch Video Solution

125. How does formic acid react with Fehling solution and Tollen's reagent?

Watch Video Solution

126. Give the principle of extraction of copper from one of its ore.

Watch Video Solution

127. Why does copper not liberate H_2 gas from dilute mineral acid ?

Watch Video Solution

128. Describe the preparation of Ozone.

Watch Video Solution

129. Discuss the important properties and uses of ozone.

Watch Video Solution

130. What do you mean by depression in freezing point of a solution ? How will you

calculate the molecular mass of solute from depression in freezing point ? A solution containing 34.2 g cane sugar $(C_{12}H_{22}O_{11})$ dissolved in 500 g of water froze at - $0.374^{\circ}C$. Calculate the freezing point depression constant of water.

Watch Video Solution

131. Prove that depression in freezing point is a colligative property.

Watch Video Solution

132. Addition of 0.643 g of a compound to 50. mL of benzene .(density 0.879 $\frac{g}{m}L$ lowers the freezing point from 5.51^0C to 5.03^0C. If K_f for benzene is 5.12 $Kkgmol^1$, calculate the molar mass of the compound.

Watch Video Solution