

## *JEXPO 2013 Solved paper Chemistry With Answers*

51.  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O} \xrightarrow{\text{T1}} \text{CuSO}_4 \cdot \text{H}_2\text{O} \xrightarrow{\text{T2}} \text{CuSO}_4$  In this process T1 and T2 are respectively as

Ans.: (C)  $125^\circ\text{C}$  and  $200^\circ\text{C}$

52. Excess ammonia on reaction with  $\text{Cl}_2$  gas forms

Ans.: (C)  $\text{NCl}_3$

53. Nitrolim is a mixture of

Ans.: (B)  $\text{CaCN}_2$  and C

54. For  $\text{HNO}_3$  identification, we run 'ring test', the composition of which is

Ans.: (C)  $\text{Fe}(\text{NO})(\text{H}_2\text{O})_5\text{SO}_4$

55. Identification of original diamond is done by

Ans.: (B) x-ray

56. Components of producer gas are

Ans.: (C)  $\text{CO} + \text{H}_2$

57. Baking powder is a mixture of

Ans.: (C) Sodium bicarbonate and potassium hydrogen tartrate

58. Main components of German silver are

Ans.: (D) Cu-Zn-Ni

59. The formula of Nessler's reagent is

Ans.: (C)  $\text{K}_2\text{HgI}_4$

60. A small amount of powder is added into dil.  $\text{H}_2\text{SO}_4$  acid solution and the evolved gas turbidifies lime water. Powder and gas are

Ans.: (D) ferrous sulphide and hydrogen sulphide

61. When an aqueous solution of  $\text{Ba}(\text{NO}_3)_2$  is added to a dilute solution of an acid a white precipitate is formed. The precipitate is insoluble in hydrochloric acid. What is the acid

Ans.: (B)  $\text{HCl}$

62. Which of the following metals is present in all the three alloys-brass, bronze and duralumin?

Ans.: (B) Cu

63. Lightest metal is

Ans.: (C) Lithium

64. On contact of two gases a solid is formed. Two gases are

Ans.: (A)  $\text{H}_2\text{S}$  and  $\text{NH}_3$

65. Washing liquid for photographic plate is

Ans.: (C) sodium thio-sulphate solution

66. In which of the following reactions a black precipitate is not formed?

Ans.: (C)  $\text{CuSO}_4 + \text{H}_2\text{S} \rightarrow$

67. For plastering of broken hands and legs the following sulphate compound is used

Ans.: (B)  $\text{CuSO}_4$

68. Conc.  $\text{H}_2\text{SO}_4$  has no action on which class of compounds?

Ans.: (A) Metal Sulphides\*\*\*\*

69. The formula of brown ring, formed in the ring test of nitrate radical is

Ans.: (A)  $[\text{Fe}(\text{H}_2\text{O})_5(\text{NO})_2]\text{SO}_4$

70. Which of the following can not decolourise bromine?

Ans.:(A) ethylene

71. How many covalent bonds are present in the molecule  $C_3H_8$ ?

Ans.: (C) 10

72.  $C_4H_6$ -- this hydrocarbon can not contain

Ans.: (B) One triple bond in the molecule

73. The components of a mixture of diethyl ether and acetone may be separated through?

Ans.: (A) Sublimation\*\*\*\*

74. The pungent smell of the gas coming out from leakage of LPG cylinder is due to

Ans.: (D) mercaptane

75. 2.5 mole of anhydrous copper (II) sulphate is converted completely to blue vitriol. How many moles of water has been added to it

Ans.: (C) 12.5 Mole

76. Which of the following when dissolved in water produce neutral aqueous solution

Ans.: (B) Common salt

77. Which of the following salts makes aqueous solution as acidic

Ans.: (B)  $NH_4HSO_4$

78. A compound, where electrovalent, covalent and coordinate, all three types of bond exist is

Ans.: (B)  $Ca(OCl)Cl$

79. How much amount of  $CO_2$  may be obtained from 10kg of lime stone?

Ans.: (B) 4.4 kg

80. According to penetration power which one of the following is correct?

Ans.: (C)  $x\text{-ray} > \gamma\text{-ray} > \alpha\text{-ray} > \beta\text{-ray}$

81. Find the total charges present in 0.2 mole of phosphate ( $PO_4^{3-}$ ) ion.

Ans.: (unknown to me)

82. Litmus test of aqueous suspension of soap shows

Ans.: (B) red litmus turns to blue

83. Both the ions of which of the following pairs have 8 electrons in the L-shell?

Ans.: (B)  $S^{2-}$  and  $Cl^-$

84. A gas at 1atm. pressure of volume 100 liter is heated from  $100^\circ C$  to  $200^\circ C$ . If volume remains constant then find out its pressure?

Ans.: (B) 1.268 atm.

85. Which of the following is most metallic in nature?

Ans.: (A) Mn

86. How does the nature of oxides of their elements changes across a period (i.e. from left to right) in the periodic table?

Ans.: (B) basic-->acidic-->neutral

87. How many ions are produced in the aqueous solution by their dissociation when 1 mole of ferrous sulphate and 1 mole of ferric sulphate are dissolved in excess of water

Ans.: (A) 3N

88. Fluorine (F), Chlorine(Cl), Bromine(Br) and Iodine(I) follow electronegativity order:

Ans.:(B)  $I < Br < Cl < F$

89. Which of the following is amphoteric oxide?

Ans.: (C)  $Al_2O_3$

90. How many hydrogen atom are present in 2g of methane?

Ans.: (A)  $3.011 \times 10^{23}$

91.  $^{19}\text{K}^{39}$  and  $^{20}\text{Ca}^{40}$  are converted to mono-positive and Di-positive ions respectively. The number of which particle / particles is/are the same in both the ions

Ans.: (B) electrons and neutrons

92. Which of the following is the electronic arrangement of CA atom?

Ans.: (C) K(2)L(8)M(8)N(2)

93. Hydrogen of acetylene is more acidic than hydrogen of ethylene, because hydrogen of acetylene attached to

(B) SP<sup>2</sup> carbon

94. On heating ammonium cyanate produces

Ans.: (A) Urea

95. Ethanol and dimethyl ether, the two different compounds are having the same formula, this property is known as

Ans.: (D) Isomerism

96. What are the functional groups present in the two isomeric compounds having the same molecular formula C<sub>3</sub>H<sub>6</sub>O

Ans.: (B) One isomer contains >C=O group and the other -OH group

97. The catalyst which is used for converting acetylene to ethylene is known as ?

Ans.: (A) Lindlar catalyst

98. Eco-friendly polymer is

Ans.: (B) Polyvinyl Chloride

99. An organic compound which contains both the amine and carboxylic acid group is

Ans.: (D) vinegar

100. The monomer of teflon polymer is

Ans.: (C) tetrafluoro ethylene