

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°C and 200°C

52. Excess ammonia on reaction with Cl_2 gas forms

Ans.: (C) NCl_3

53. Nitrolim is a mixture of

Ans.: (B) CaCN_2 and C

54. For 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) K_2HgI_4

60. A small amount of powder is added into dil. H_2SO_4 acid solution and the evolved gas turbid 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) 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) H_2S and 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) CuSO_4

68. Conc. H_2SO_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) $\text{Ca}(\text{OCl})\text{Cl}$
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°C to 200°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 the elements change across a period (i.e. from left to right) in the periodic table?
Ans.: (B) basic \rightarrow acidic \rightarrow 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. Flourine (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) 3.011×10^{23}

91. $^{19}K^{39}$ and $^{20}Ca^{40}$ 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^2 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_3H_6O

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