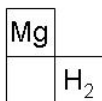


Science: Chemistry

1) In summer _____ clothes are used.

- a) Terelene
- b) Cotton
- c) Rayon
- d) Terrene



2) In _____ to form the chemical compound using any two formulae _____ should be filled in the blank space.

- a) Br
- b) N
- c) O
- d) Cl

3) Which of the following is false?

- a) Quick lime is acidic in nature
- b) Oxides of non metal are acidic
- c) Carbonic acid is weak acid
- d) To clean silver pots Sulphuric acid and nitric acid is used

4) Which of the following is the molecular formula of Washing Soda?

- a) Na₂CO₃
- b) H₂SO₄
- c) NaHCO₃
- d) Na₂(SO₄)₃

5) In near future there is a high probability of increase patients of skin cancer because of_____.

- a) Increasing use of synthetic clothes
- b) Increasing use of perfume spray
- c) Harmful rays reaching Earth due to increasing pollution
- d) All the above

6) Which of the elements have valency 4?

- a) C
- b) Al
- c) Mg
- d) H

- 7) Green glasses used for traffic signal contain _____.
- Crystalline solid
 - Ferrous oxide
 - Ferric oxide
 - Chlorophyll
- 8) _____ is an example of weak base.
- NaOH
 - KOH
 - Fe (OH) ₃
 - Ca (OH) ₂
- 9) In an atom of _____ element, atomic mass number is not twice the atomic number.
- Nitrogen
 - Oxygen
 - Carbon
 - Fluorine
- 10) Which of the following pair does not show radioactivity?
- Thorium, Radium
 - Bismuth, Polonium
 - Zinc, Plutonium
 - Krypton, Gold
- 11) Substance which is hygroscopic in air is _____.
- CuSO₄
 - Na₂CO₃
 - NaOH
 - Na₂SO₄
- 12) Which of the following is a neutralization reaction?
- $\text{NaOH} + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O}$
 - $\text{AgNO}_3 + \text{NaCl} \rightarrow \text{NaNO}_3 + \text{AgCl}$
 - $\text{FeCl}_2 + \text{H}_2\text{S} \rightarrow 2\text{HCl} + \text{FeS}$
 - $\text{Pb}(\text{NO})_3 + 2\text{KI} \rightarrow \text{PbI}_2 + 2\text{KNO}_3$
- 13) Ratio of molecular weight of D₂ to molecular weight of H₂ is 2 , and ratio of molecular weight of D₂O and Molecular weight of H₂O is 'X' then
- X = 2
 - X > 2
 - X < 2
 - X = $\frac{1}{2}$

14) Which of the following include compound radical?

- a) Sodium sulphate
- b) Sodium chloride
- c) Potassium iodide
- d) Potassium oxide

15) Although there are enough of salts in deserts, the plants are not able to absorb them easily because_____.

- a) All types of salts are not soluble in water
- b) It is difficult for plants to absorb the salts by osmosis
- c) There is no water in the desert
- d) The concentrated salt solution is favorable for osmosis

16) We experience typical smell (odour) in the surrounding of sugar factory because_____.

- a) Molasses are drained out of the factory
- b) Different gases are produced
- c) Because of the combustion of different fuels
- d) Molasses get mixed with the nearby river causing death of the fishes in it

17) If $\text{Na}_2\text{S}_2\text{O}_3$ is the molecular formula of sodium Thiosulphate then which of the following molecular formulae is incorrect?

- a) $\text{Cu}_2\text{S}_2\text{O}_3$
- b) CuS_2O_3
- c) AlS_2O_3
- d) $\text{Al}_2(\text{S}_2\text{O}_3)_3$

18) 14 grams of ${}_7\text{N}^{14}$ will contain_____.

- a) One mole of nitrogen molecules
- b) Half mole of nitrogen molecules
- c) Two moles of nitrogen molecules
- d) Fourteen moles of Nitrogen molecules

19) 6.023×10^{23} molecules of carbon and 6.023×10^{23} molecules of oxygen give _____ molecules of CO_2 .

- a) 6.023×10^{23}
- b) 12.046×10^{23}
- c) 18.069×10^{23}
- d) 3.0115×10^{23}

20) Substance A conducts electricity in molten state. Hence A is _____.

- a) Urea
- b) Aluminum sulphate
- c) Sugar
- d) Polyester

21) Coloured glass is a /an _____.

- a) Mixture
- b) Compound
- c) Element
- d) None of the above

22) Which of the following statements is correct?

- a) Water cools in both, earthenware and porcelain
- b) Water doesn't cool in both, earthenware and porcelain
- c) Water cools in earthenware but not in porcelain
- d) Water cools in porcelain but not in earthenware

23) Silica glass: Silica :: Water glass:?

- a) Ice
- b) Water
- c) Borosilicate
- d) Soda silicate

24) Which of the following chemicals is used in both fertilizers and polymers?

- a) Urea
- b) Ammonium Sulphate
- c) Potassium sulphate
- d) Super phosphate

25) In the manufacture of Porcelain _____ are used.

- a) Metal oxides
- b) Metals
- c) Acids
- d) Bases

26) X and Y are two atoms having valency 5 and 2 respectively. Hence molecular formula of their compound will be _____.

- a) $X_5 Y_5$
- b) $X_2 Y_5$
- c) $X_2 Y_2$
- d) $X_5 Y_2$

27) Soap becomes ineffective in hard water because of the presence of salts of_____.

- a) Copper
- b) Calcium
- c) Aluminum
- d) Potassium

28) A reaction of a metal with an acid will always form _____.

- a) Hydrogen
- b) Water
- c) Oxygen
- d) Salt

29) Which of the following properties is different for solids, liquids and gases?

- a) Movements of molecules
- b) Particle size of a substance
- c) Mass of the substance
- d) Energy exchanges

30) Which of the following is not an element?

(i) Common salt (ii) Brass (iii) Zink (iv) Sherbet

- a) All
- b) i, ii, iv
- c) iv, i
- d) i only

31) At what temperature among the following is Nitrogen in liquid state?

- a) -196°C
- b) -210°C
- c) 25°C
- d) 0°C

32) Out of the following alternatives, which represents physical change?

- a) Melting of wax
- b) Mixing of gases
- c) Rusting of iron
- d) a) and b)

33) Number of elements occurring in nature are_____.

- a) 90
- b) 92
- c) 96
- d) 105

34) _____ is a non-metal in the liquid form at ordinary temperature

- a) Carbon
- b) Phosphorus
- c) Bromine
- d) Sulphur

35) Which of the following is property of Sodium Chloride?

- a) Reacts chemically with air when kept open
- b) Burns in water and chlorine
- c) White, crystalline at room temperature
- d) Greenish yellow gas is given out when heated

36) Which of the following is the property applicable to mixtures?

- a) Proportion of constituents of a mixture is definite
- b) Mixture can not flow
- c) Components of a mixture can be separated by physical methods
- d) Properties of mixture are different than the constituents

37) Which of the following statements is true?

- a) Number of non – metals is larger than that of the metals
- b) Number of metals is larger than that of the non – metals
- c) Number of non – metals is equal to the number of metals
- d) None of these

38) Iron melts at_____.

- a) 1537°C
- b) 800°C
- c) 25°C
- d) 2750°C

39) _____ is found in nature in elemental form.

- a) Platinum
- b) Potassium
- c) Magnesium
- d) Phosphorus

40) Mass of iron and sulphate in FeSO_4 is in the ratio_____.

- a) 4: 7
- b) 8: 1
- c) 8: 4
- d) 3.5: 2

41) Out of the following reactions in which the hydrogen is NOT formed?

- a) Sodium and water
- b) Zinc and dilute hydrochloric acid
- c) Copper and concentrated nitric acid
- d) Iron and steam

42) Colour of nitrogen dioxide is _____.

- a) Violet
- b) Yellow
- c) Brown
- d) Green

43) Which of the following is example of mixture?

- a) Sugar
- b) Brass
- c) CO₂
- d) NO₂

44) Which of the following is not an example of chemical change?

- a) Rusting of iron
- b) Converting water to steam
- c) Making curd from milk
- d) Heating of coal

45) The most abundant chemical element in Earth's crust is_____.

- a) Oxygen
- b) Aluminum
- c) Iron
- d) Silicon

46) Aluminum has a valency 3 and sulphate has valency 2, then which is the correct formula for aluminum sulphate?

- a) Al₂ S₂O₄
- b) Al₂ (SO₄)₃
- c) Al₃ (SO₄)₂
- d) Al SO₄

47) An atom that has 4 electrons, 4 protons and 6 neutrons would have an atomic mass of _____.

- a) 4
- b) 6
- c) 8
- d) 10

48) The three basic components of an atom are_____.

- a) Protons, neutrons, and ions
- b) Protons, neutrons, and electrons
- c) Protons, neutrinos, and ions
- d) Protium, deuterium, and tritium

49) Hydrochloric acid is an acid because it gives _____ in its aqueous solution.

- a) OH
- b) H₂O
- c) H⁺
- d) Ions

50) A single proton has _____ electrical charge.

- a) No
- b) Positive
- c) Negative
- d) Either a positive or negative

51) The direct conversion of solid to gas is called _____.

- a) Sublimation
- b) Evaporation
- c) Condensation
- d) Vaporization

52) A) In solids the molecules are tightly packed together.

B) In gases the molecules are spread out the most.

C) In liquids the molecules are loosely packed together.

- a) Statement A alone is right.
- b) Statement B alone is right.
- c) Statement C alone is right.
- d) All the above statements are right

53) A mixture that appears to have the same composition, color, and density and is mixed at the molecular level is called a_____.

- a) Solution
- b) Heterogeneous mixture
- c) Suspension
- d) Element

54) Which of the following is a solution?

- a) Salt water
- b) Milk
- c) Muddy water
- d) Chlorine

55) A _____ is the substance being dissolved in a solution.

- a) Solvent
- b) Insolvent
- c) Substrate
- d) Solute

56) Air contains 78 % nitrogen, 21 % oxygen, and 1 % argon. Which gas is the solvent?

- a) Oxygen
- b) Argon
- c) Nitrogen
- d) None of the above

57) Sterling silver contains 92.5 percent silver and 7.5 percent copper. Which substance is the solute?

- a) Silver
- b) Copper
- c) Platinum
- d) Solids do not form solutions.

58) Which attribute enables water molecules to dissolve sugar?

- a) Liquid state of the solute
- b) Stationary nature of water molecules
- c) Polarity of water
- d) Sugar is an electrolyte

59) Which of the following actions increases the rate of dissolving?

- a) Decreasing the temperature
- b) Using larger-sized crystals
- c) Decreasing the pressure
- d) Stirring the solution

60) As the temperature of a liquid solvent increases, the amount of solute that can dissolve in it _____.

- a) Decreases
- b) Remains constant
- c) Increases
- d) Decreases by 1° Celsius for every milliliter of solvent

61) A substance is _____ .

- a) Always an element
- b) Always a compound
- c) Either an element or a compound
- d) A mixture of compounds

62) A/An _____ is a substance in which all the atoms in it are alike

- a) Compound
- b) Mixture
- c) Element
- d) Solution

63) A /An _____ is a substance in which constituent elements are in definite proportions.

- a) Synthetic element
- b) Compound
- c) Mixture
- d) Solution

64) The silvery liquid used in thermometers, called mercury, is a/an _____.

- a) Compound
- b) Element
- c) Mixture
- d) Solution

65) Which of the following is a substance?

- a) Milk
- b) Water
- c) Vinegar
- d) Cheese

66) A _____ is a heterogeneous mixture that never settles.

- a) Solution
- b) Suspension
- c) Compound
- d) Colloid

67) A _____ is a material made up of two or more substances that can be separated by physical means.

- a) Element
- b) Compound
- c) Molecule
- d) Mixture

68) The proportions of substances in a mixture _____.

- a) Are always the same for each substance
- b) Are always equal for each substance in the mixture
- c) Can vary among the substances
- d) Never can be determined accurately

69) Which of the following statements about gases are correct?

I) In gases the intermolecular space is large and hence they have a low density.

II) Gas molecules move in all directions and therefore exert pressure in all directions.

III) In gases intermolecular attraction is weak and therefore gases diffuse rapidly.

a) I and II

b) II and III

c) I and III

d) I,II and III

70) If you have to use a microscope in order to see the substances in a mixture, that mixture is _____.

a) Heterogeneous

b) Homogeneous

c) Solution

d) Microgeneous

71) Which of the following is a colloid?

a) Smoke

b) Oxygen

c) Vinegar

d) Water

72) Silicon is a _____.

a) Metal

b) Non-metal

c) Metalloid

d) Compound

73) In general, salts _____.

a) Are ionic compounds

b) Contain hydrogen ions

c) Contain hydroxide ions

d) Turn litmus red

74) When bases ionize they release _____.

a) Hydrogen ions

b) Sodium ions

c) Chloride ions

d) Hydroxide ions

75) A base used in the manufacture of soap is _____.

- a) Calcium hydroxide
- b) Sodium hydroxide
- c) Ammonium hydroxide
- d) Zinc hydroxide

76) An element common to all mineral acids is _____.

- a) Chlorine
- b) Nitrogen
- c) Oxygen
- d) Hydrogen

77) When magnesium and hydrochloric acid react, they produce _____.

- a) Oxygen and magnesium chloride
- b) Chlorine and magnesium oxide
- c) Hydrogen and magnesium chloride
- d) Hydrogen and magnesium oxide

78) When water solutions of an acid and base are mixed

- a) No reaction occurs
- b) A new acid and a new base are formed
- c) A salt and water are formed
- d) An acid and a salt are formed

79) A common substance that contains acetic acid is _____.

- a) Vinegar
- b) Ammonia water
- c) Salad oil
- d) soap

80) When dissolved in water, salts _____.

- a) Are nonelectrolytes
- b) Have a bitter taste
- c) Are electrolytes
- d) Release hydrogen ions

81) A base can be prepared by the reaction between _____.

- a) An active nonmetal with water
- b) A gas with water
- c) A sulfide with water
- d) An active metal with water

82) Of the following, the property that most closely relates to acids is _____.

- a) Bitter taste
- b) Contains the hydroxide polyatomic ion
- c) Sour taste
- d) Salty taste

83) When an acid is dissolved in water, it usually forms _____.

- a) Hydronium ions
- b) Hydroxide ions
- c) No ions
- d) Chloride ions

84) The acid used in the storage battery in a car is _____.

- a) Nitric acid
- b) Hydrochloric acid
- c) Tartaric acid
- d) Sulfuric acid

85) The sour taste of lemons and limes is due to a substance called _____.

- a) Acetic acid
- b) Citric acid
- c) Hydrochloric acid
- d) Carbonic acid

86) Which of the following is not a metalloid?

- a) B
- b) Po
- c) Ge
- d) None of these

87) Which of the following is not a metal?

- a) Rb
- b) Rn
- c) Be
- d) Ra

88) When we turn on the tap of LPG cylinder, the Butane rushes out in ____ state.

- a) Gaseous
- b) Liquid
- c) Solid
- d) Impure

89) Which of the following flame is produced by a candle?

- a) Blue flame
- b) Yellow luminous flame
- c) Non luminous flame
- d) None of the above

90) Atomic number of silicon is _____.

- a) Fifteen
- b) Sixteen
- c) Fourteen
- d) Thirty two

91) Atomic number of Iron and its atomic mass are respectively_____.

- a) 23 and 54
- b) 26 and 56
- c) 19 and 36
- d) 28 and 58

92) Chemical Formula for baking soda is_____.

- a) Na_2HCO_2
- b) Na_2CO_3
- c) NaHCO_3
- d) Na_2SO_4

93) "Of the things we use in our daily life, carbon is not present in _____.

- a) Plastic
- b) Water
- c) Petrol
- d) None of these

94) The air enveloping the earth is known as_____.

- a) Biosphere
- b) Lithosphere
- c) Atmosphere
- d) Hydrosphere

95) Water is a compound of hydrogen and oxygen having a molecular formula

- a) H_3O_4
- b) H_2O
- c) HO
- d) H_2O_3

96) What is the chemical nature of solution of common salt?

- a) Neutral
- b) Acidic
- c) Basic
- d) Amphoteric

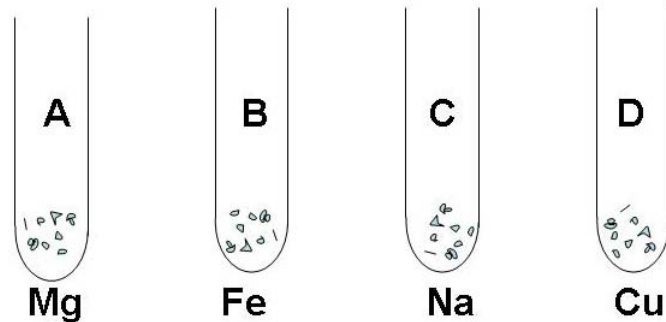
97) If Methyl Orange is added to the rain water collected immediately after lightning, then it turns _____.

- a) Pink
- b) Yellow
- c) Colorless
- d) Blue

98) By burning magic wire _____ is obtained

- a) Magnesium Oxide only
- b) Magnesium Oxide and Magnesium Nitride
- c) Magnesium Nitride only
- d) Magnesium Nitrate only

99) Four test tubes contain metals as shown in the figure. Addition of water to which test tube will initiate the reaction?



- a) A
- b) B
- c) C
- d) D

100) Which of the following is NOT a manmade material?

- a) D.D.T.
- b) Silk
- c) Penicillin
- d) Nylon

101) As wires and thin sheets can be obtained from plastic so it is a _____

- a) Metal
- b) Malleable and Ductile substance
- c) Bad conductor of electricity
- d) Man made material

102) Which of the following is a physical change?

- a) Fractional distillation of mixture of Petrol and Kerosene**
- b) Bleaching of Paper pulp**
- c) Rusting of Iron**
- d) Effect of heat on Carbonic acid**

103) The cocoons of silkworms are dipped in boiling water so as to get_____.

- a) A continues silk yarn**
- b) A clean washed silk yarn**
- c) Easily removed silk yarn**
- d) Strengthened silk yarn**

104) In a dry cell the positive pole is _____.

- a) Carbon rod**
- b) Zinc container**
- c) Ammonium Chloride**
- d) Brass cap**

105) Ozone layer in the Earth's atmosphere is not affected by _____.

- a) Nitrous Oxide**
- b) Methane**
- c) Chlorofluorocarbon**
- d) Nitrogen**

106) Nitric acid is not used for _____.

- a) Paints**
- b) Explosives**
- c) Cleaning of Silver**
- d) Etching of Metals**

107) Permanent hardness can be removed by adding_____.

- a) Cl_2**
- b) Na_2CO_3**
- c) $\text{Ca}(\text{OCl})\text{Cl}$**
- d) K**

108) A detergent is_____.

- a) Cleaning agent**
- b) Drug**
- c) Soap**
- d) Catalyst**

109) _____ gas is filled in electric bulb.

- a) Neon
- b) Krypton
- c) Helium
- d) Argon

110) Producer gas is a mixture of _____.

- a) Carbon dioxide and nitrogen
- b) Carbon monoxide and nitrogen
- c) Carbon monoxide and hydrogen
- d) Methane and carbon monoxide

111) The primary cell which is used in daily life is _____.

- a) Leclanche cell
- b) Dry cell
- c) Daniel cell
- d) Simple voltaic cell

112) In electrolysis of water, oxygen is collected at _____.

- a) Anode
- b) Cathode
- c) On both electrodes
- d) None of the above

113) Hydrochloric acid reacts with metals to produce _____.

- a) Hydrogen
- b) Chlorine
- c) Carbon dioxide
- d) Oxygen

114) Nitric acid does not react with _____.

- a) Silver
- b) Copper
- c) Zinc
- d) Gold

115) Which metal is used for coating cooking vessels made of brass?

- a) Aluminum
- b) Stainless steel
- c) Zinc
- d) Tin

116) _____ glass is used in making medicine bottles and syringes.

- a) Alkali Silicate glass
- b) Borosilicate glass
- c) Lead glass
- d) Processed glass

117) Sodium carbonate is the chemical name for _____.

- a) Quick lime
- b) Caustic potash
- c) Gypsum
- d) Washing soda

118) Which of the following substances is deliquescent?

- a) Sodium carbonate decahydrate
- b) Sodium carbonate monohydrate
- c) Sodium hydrogen carbonate
- d) Magnesium chloride

119) The process which is employed to separate ingredients of the mixture of two miscible liquids differing in their boiling points is:

- a) Fractional distillation
- b) Distillation
- c) Evaporation
- d) Decantation

120) Temporary hardness of water is due to presence of _____.

- a) MgSO_4
- b) Ca SO_4
- c) $\text{Ca}(\text{HCO}_3)_2$
- d) NaHCO_3

121) A compound of ammonia which sublimes on heating is _____.

- a) Ammonium sulphate
- b) Ammonium nitrate
- c) Ammonium chloride
- d) Ammonium nitrite

122) Which of the following methods can be used to obtain pure water from a solution of salt and water?

- a) Filtration
- b) Distillation
- c) Decantation
- d) Electrolysis

123) Which of the following is characteristic of both mixtures and compounds?

- a) They contain components in fixed proportion**
- b) Their properties are same as those of their components**
- c) Their weight equals the sum of the weights of their components**
- d) Energy is given out when they are formed**

124) The atomic number of an element is 7. That means its nucleus contains _____.

- a) 7 electrons**
- b) 7 protons**
- c) 7 neutrons**
- d) 7 protons and 7 electrons**

125) Which of the following processes results in the formation of a new chemical compound?

- a) Burning Phosphorus in air**
- b) Heating Silver wire at 100°C**
- c) Dissolving common salt in water**
- d) Melting of ice**