

COMMON MODEL PAPER

Solutions MCQ TEST

10th Standard

Science

Exam Time : 01:15:00 Hrs

Total Marks : 75

75 x 1 = 75

- 1) A solution is a _____ mixture.
(a) homogeneous (b) heterogeneous (c) homogeneous and heterogeneous
(d) non homogeneous
- 2) The number of components in a binary solution is _____.
(a) 2 (b) 3 (c) 4 (d) 5
- 3) Which of the following is the universal solvent?
(a) Acetone (b) Benzene (c) Water (d) Alcohol
- 4) A solution in which no more solute can be dissolved in a definite amount of solvent at a given temperature is called _____.
(a) Saturated solution (b) Un saturated solution (c) Super saturated solution
(d) Dilute solution
- 5) Identify the non aqueous solution.
(a) sodium chloride in water (b) glucose in water (c) copper sulphate in water
(d) sulphur in carbon-di-sulphide
- 6) When pressure is increased at constant temperature the solubility of gases in liquid
(a) No change (b) increases (c) decreases (d) no reaction
- 7) Solubility of NaCl in 100 ml water is 36 g. If 25 g of salt is dissolved in 100 ml of water how much more salt is required for saturation _____.
(a) 12g (b) 11g (c) 16g (d) 20g
- 8) A 25% alcohol solution means
(a) 25 ml alcohol in 100 ml of water (b) 25 ml alcohol in 25 ml of water
(c) 25 ml alcohol in 75 ml of water (d) 75 ml alcohol in 25 ml of water
- 9) Deliquescence is due to _____.
(a) Strong affinity to water (b) Less affinity to water (c) Strong hatred to water
(d) Inertness to water
- 10) Which of the following is hygroscopic in nature?
(a) ferric chloride (b) copper sulphate penta hydrate (c) silica gel
(d) none of the above
- 11) Sugar and copper sulphate crystals are dissolved in water. The solution is called as _____.
(a) binary (b) trinary (c) ternary (d) quartenary
- 12) 40 g of sodium chloride in 100 g of water at 25⁰ C forms _____ solution.
(a) Super saturated (b) Unsaturated (c) Saturated (d) Both (a) and (b)
- 13) 8% of NaCl solution is
(a) 8g of NaCl in 100g of water (b) 8g of NaCl in 92g of water
(c) 92g of NaCl in 8g of water (d) 92g of NaCl in 100g of water
- 14) White vitriol is _____.
(a) $\text{CaSO}_4 \cdot 7\text{H}_2\text{O}$ (b) $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ (c) $\text{K}_2\text{SO}_4 \cdot 7\text{H}_2\text{O}$ (d) $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$

- 15) Anhydrous copper sulphate is _____ in colour.
(a) blue (b) bluish green (c) colourless (d) black
- 16) Hygroscopic substances are used as _____ agents.
(a) oxidizing (b) reducing (c) decarbocyleting (d) drying
- 17) Solubility of a solute is governed by
(a) nature of solute and solvent (b) temperature (c) pressure (d) all the above
- 18) Under which of the following cases, dissolution of sugar will be rapid?
(a) Sugar crystal in hot water (b) Sugar crystal in cold water
(c) Powdered sugar in hot water (d) Powdered sugar in cold water
- 19) A beaker contains a solution of copper sulphate. precipitation of copper sulphate takes place when small amount of it added to _____ solution.
(a) Saturated (b) Super saturated (c) Unsaturated (d) Concentrated
- 20) Quick lime is dissolved in water is a _____ process.
(a) exothermic (b) endothermic (c) reversible (d) both (a) and (b)
- 21) Example for solid in solid _____
(a) Soda water (b) Camphor in air (c) Charcoal (d) alloy
- 22) In exothermic process as the temperature increases, solubility of the salt is _____
(a) decreases (b) increases (c) no change
(d) increase and then remains constant
- 23) The solubility of gases in liquid increases with _____
(a) increased volume (b) increased pressure (c) decreased pressure
(d) none of these
- 24) Salt solution containing common salt in water is an example for _____
(a) binary solution (b) trinary solution (c) suspension (d) colloidal solution
- 25) Which is a non-aqueous solution?
(a) sugar in water (b) common salt in water (c) sulphur in carbon disulphide
(d) None
- 26) Non-aqueous solvent is _____
(a) benzene (b) ether (c) CS₂ (d) All the above
- 27) Which of the following is a saturated solution?
(a) 5g NaCl in 100g water (b) 10g NaCl in 100g water
(c) 20g NaCl in 100g water (d) 36g NaCl in 100g water
- 28) An example for a solution containing liquid solute in gas solvent is _____
(a) soda water (b) cloud (c) cork (d) smoke
- 29) Which of the following factors affect solubility?
(a) temperature (b) pressure (c) nature of solute and solvent (d) all the above
- 30) Solubility of KNO₃ _____ with the increases in temperature.
(a) increases (b) decreases (c) remains constant (d) None of these
- 31) Solubility of CaO _____ with the increases in temperature.
(a) increases (b) decreases (c) remains constant (d) None of these
- 32) Solubility of CO₂ gas in water _____ with the increase in pressure.
(a) increases (b) decreases (c) remains constant (d) None of these
- 33) Which of the following is a dehydrating agent (absorbs moistone)

- (a) sodium hydroxide (b) anhydrous calcium chloride (c) sugar
(d) None of these
- 34) _____ is a homogeneous mixture of two or more substances.
(a) solution (b) solute (c) solvent (d) colloid
- 35) In a solution the component which is present in higher amount by weight is called _____
(a) solution (b) solute (c) solvent (d) colloid
- 36) The process of uniform distribution of solute into solvent is called _____
(a) solution (b) dissolution (c) coagulation (d) solvent
- 37) Solution which are made of one solute and one solvent are called _____
(a) solutions (b) binary solutions (c) ternary solutions (d) tetranary solutions
- 38) A solution contain more than two components are called _____
(a) solution (b) binary solution (c) ternary solution (d) tetranary solutions
- 39) Give an example of solid- solid mixture _____
(a) Alloys (b) Amalgam (c) NaCl in water (d) None
- 40) Give an example of liquid-solid mixture _____
(a) Alloys (b) Amalgam (c) NaCl in water (d) None
- 41) Give an example of solid-liquid mixture _____
(a) Sodium chloride in water (b) ethyl alcohol in water
(c) CO₂ dissolved in water (d) Methyl alcohol in water
- 42) Give an example of liquid-liquid mixture is _____
(a) C₂H₅OH in water (b) NaCl in water (c) CO₂ in water (d) none
- 43) Give an example of gas-liquid mixture is _____
(a) C₂H₅OH in water (b) NaCl in water (c) CO₂ in water (d) none
- 44) Give an example of liquid- gas mixture is _____
(a) Water vapour in air (cloud) (b) Mixture of helium oxygen gas
(c) CO₂ in water (d) NaCl in water
- 45) Give an example of gas-gas mixture is _____
(a) Water vapour in air (b) CO₂ in water (c) Mixture of helium oxygen gas
(d) NaCl in water
- 46) _____ is called as universal solvent.
(a) Water (b) Acetone (c) Benzene (d) Ether
- 47) The solvent in which water acts as a solvent is called _____
(a) aqueous solution (b) non-aqueous solution (c) either a or b
(d) neither a nor b
- 48) The solution in which any liquid other than water acts as a solvent is called _____
(a) aqueous solution (b) non-aqueous solution (c) either a or b
(d) neither a nor b
- 49) Give an example of non-aqueous solution _____.
(a) Water (b) Iodine dissolved in CCl₄ (c) either a or b (d) Neither a nor b
- 50) Give an example of saturated solution _____
(a) 16g of NaCl in 100 g of water (b) 36g of NaCl in 100 g of water
(c) 45g of NaCl in 100 g of water (d) Iodine dissolved in CCl₄

- 51) Give an example of unsaturated solution _____
(a) 16g of NaCl in 100 g of water (b) 36g of NaCl in 100 g of water
(c) 45g of NaCl in 100 g of water (d) 100 g of NaCl in 36 g of water
- 52) example of super saturated solution _____
(a) 16g of NaCl in 100 g of water (b) 36g of NaCl in 100 g of water
(c) 45g of NaCl in 100 g of water (d) 100 g of NaCl in 16 g of water
- 53) Example of super saturated solution _____
(a) 16g of NaCl in 100g of water (b) 36g of NaCl in 100g of water
(c) 45g of NaCl in 100g of water (d) 100g of NaCl in 16g of water
- 54) Polar compound is _____
(a) Sodium chloride is dissolved in water (b) Fat dissolved in ether
(c) either a or b (d) neither a nor b
- 55) Non-polar compounds are _____ is non-polar solvents.
(a) soluble (b) insoluble (c) either a or b (d) neither a nor b
- 56) In endothermic process, solubility increases with _____ in temperature.
(a) increases (b) decreases (c) either a or b (d) neither a nor b
- 57) In exothermic process, solubility decreases with _____ is temperature.
(a) increases (b) decreases (c) either a or b (d) neither a nor b
- 58) The pressure is increased, the solubility of a gas in liquid _____.
(a) increases (b) decreases (c) either a or b (d) neither a nor b
- 59) Mass percentage is expressed as _____
(a) weight / weight (b) weight / mass (c) mass / weight (d) none
- 60) Volume percentage is expressed as _____
(a) volume / mass (b) volume / volume (c) mass / volume (d) mass / mass
- 61) Volume percentage _____ with increases in temperature.
(a) decreases (b) increases (c) either a or b (d) neither a nor b
- 62) The number of water molecules found in the crystalline substance is called _____
(a) hydrated salts (b) deliquescent salts (c) collidal salts (d) suspension
- 63) Copper sulphate penta hydrate $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ is _____
(a) blue vitriol (b) green vitriol (c) greenish blue vitriol (d) none
- 64) Magnesium sulphate hepta hydrate $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ is _____
(a) blue vitriol (b) green vitriol (c) epsom salt (d) none
- 65) Formula for Phosphorus pentoxide is _____
(a) F_2O_3 (b) P_2O_5 (c) $\text{P}_2\text{H}_4\text{O}_7$ (d) none
- 66) Dehydrating agent is _____
(a) Anhydrous calcium chloride (b) Anhydrous potassium chloride
(c) hydrous calcium chloride (d) hydrous potassium chloride
- 67) Formula for Silica gel is _____
(a) SiO_2 (b) SiO_3 (c) SiO_4 (d) SiO
- 68) _____ is the human activity involved in the formation of solution with water.
(a) Dancing (b) Fighting (c) Cleaning (d) Laughing
- 69) The _____ is a solvent.
(a) Aerated drinks (b) Fruit juice (c) Tea (d) water

- 70) In a solution the component which is present in lesser amount is called _____
(a) Solute (b) Solvent (c) Mixture (d) Solution
- 71) Cloud is the example of _____ binary solution.
(a) Gas - Gas (b) Liquid - Gas (c) Gas - Liquid (d) Liquid - liquid
- 72) _____ is a solid - liquid binary solution.
(a) Aqueous solution of ethanol (b) Soda water (c) Salt water (d) Water vapour
- 73) More amount of dissolved _____ is present in the water of cold regions.
(a) oxygen (b) carbon dioxide (c) sulphur (d) chlorine
- 74) Green vitriol has _____ water molecules in it.
(a) Two (b) Five (c) Seven (d) Three
- 75) Among the following _____ is a deliquescent substance.
(a) Quick lime (b) Caustic soda (c) Silica gel (d) Con. Sulphuric acid
