2. Is Matter around Us Pure

Q 1 Name the process which can be used to recover sugar from an aqueous sugar solution.
Mark (1)

Q 2 What happens when a saturated solution is heated ?
Mark (1)

Q 3 Name the process you would use to separate a mixture of water and alcohol.
Mark (1)

Q 4 Give an example of an aqueous solution in which gas is dissolved.
Mark (1)

Q 5 What is the cause of Tyndall effect as shown by colloid?
Mark (1)

Q 6 How would you confirm that a colourless liquid given to you is pure water?
Mark (1)

Q 7 Give two examples of colloidal solution.
Mark (1)

Q 8 Name the technique to separate -

(a) Salt from sea water
(b) Butter from curd
Mark (1)

Q 9 What is crystallization ?
Mark (1)

Q 10 What is a saturated solution ?
Mark (1)

Q 11 What is solution?
Mark (1)

Q 12 Which process would you use to separate colours in a dye ? Define the process.
Marks (2)

Q 13 Fog and cloud are both colloidal in nature . How do they differ ?
Marks (2)

Q 14 A compound is regarded as a pure substance but a mixture is not. Give reasons.
Marks (2)

Q 15 What is sublimation ? Write two examples of sublimating substances.

Marks (2)

Q 16 What do you understand by filtration ? Give one example also.

Marks (2)

Q 17 Define colloid. Give one example also.

Marks (2)

Q 18 What is meant by a suspension ? Write one example also.

Marks (2)

Q 19 Define solution. Name its constituents also.

Marks (2)

Q 20 What is meant by a mixture ? Write an example also.

Marks (2)

Q 21 What do you understand by a pure substance? Give one exmaple also.

Marks (2)

Q 22 What are suspensions?

Marks (2)

Q 23 Define Alloys. Give one exmaple also.

Marks (2)

Q 24 (i) A solution has been prepared by dissolving 5 g of urea in 95 g of water. What is the mass percent of urea in the solution ?

(ii)Will blood show Tyndall effect?

Marks (3)

Q 25 Classify the following into elements , compounds and mixtures-

(a) Soil (b) Magnesium (c) Salt solution (d) carbon dioxide (e) Gold (f) Methane

Marks (3)

Q 26 How will you separate iron filings and ammonium chloride from the mixture of both with sand?

Marks (3)

Q 27 How will you separate a mixture of mercury, water and benzene ?

Marks (3)

Q 28 Write three differences between physical changes and chemical changes.

Marks (3)

Q 29 Differentiate between homogeneous and heterogeneous mixtures.

Marks (3)

Q 30 What are the two types of pure substances ? Explain.

Marks (3)

Q 31 Write three properties of a colloid.

Marks (3)

Q 32 (i)A solution contains 20 g of common salt in 160 g of water. Calculate the concentration in terms of mass percentage of the solution.

(ii) Can we separate a mixture of ammonium chloride and napthalene by sublimation? Give reasons also.

Marks (3)

Q 33 Give three examples of solutions and mention th e solute and solvent present in them.

Marks (3)

Q 34 (i)A solution contains 40 g of sugar dissolved in 360 g of water. Calculate the concentration of this solution.

(ii) Name the technique used to separate cream from milk.

Marks (3)

Q 35 Write 5 differences between compound and mixture.

Marks (5)

Q 36 Write 5 properties of a true solution.

Marks (5)

Q 37 (i)To make a saturated solution, 42g of sodium chloride is dissolved in100 g of water at 293K. Find its concentration at this temperature.

(ii)Name a domestic fuel which is (a) homogeneous (b) heterogeneous.

Marks (5)

Q 38 Write 5 differences between a mixture and a compound.

Marks (5)

Q 39 (a) Classify silver as metal or non-metal and write its four properties.
(b) If you have an iron rod and a plastic rod, which of them will produce sound when hit with an object?
(c)Differentiate copper and oxygen on the basis of their volume.
(d)Name the metal which is liquid at room temperature.

Marks (5)

Q 40 (a)Classify sulphur as metal or non-metal and write four of its properties.
(b)Name –
(i) a non-metal which is a good conductor of electricity
(ii) a non-metal which is liquid at room temperature.
(iii)Name a non-metal that has lustre.

Marks (5)

Q 41 (a)Classify a mixture of sugar in water as solution, colloid or suspension and write its six properties.
(b)Give one example each of solid solution and gas solution.
(c)Write the physical state of solute and solvent present in amalgam.

Marks (5)

Q 42 (a)Is milk a pure substance? Give reasons also.
(b)Classify 24 carat gold as pure or impure substance. Give reasons also.
(c)Name two metalloids.
(d)Why carbon dioxide is classified as compound not as mixture?
(e)Write one example each of homogeneous mixture and heterogeneous mixture.

Marks (5)

Q 43 (a) Give two reasons for why it is necessary to separate components of mixture of rice and small stones.
(b)Name the techniques used for:
(i) squeezing out water from clothes in washing machine.
(ii) separating components of ink.
(c) Kerosene oil and water do not mix with each other. What is the special name used to describe such liquids?
(d)You have a mixture of ammonium chloride and sodium chloride. Name the method you will use to separate them and why?

Marks (5)

Q 44 (a)How will you separate the components of ink using chromatography? Explain with the help of a labelled diagram.
(b)What is the function of glass beads present in fractionating column?
(c)Which method out of evaporation and crystallisation is a better technique to separate sugar from sugar solution? Give reasons also.

Marks (5)

Most Important Questions

Q 1 Gold can be drawn in wire. Name the property.

Q 2 Between sulphur and copper which one you will use for making wire.

Q 3 Silver is best conductor of electricity still the electrical wires are made of copper and aluminium. Why?

Q 4 (i)Name a soft metal.
(ii)Name the element present in diamond.
(iii) Name a non-metal having shining surface.
(iv)Name an element used as semi conductor

Q 5 Why metalloids are used as semiconductors?

Q 6 Why metals are used in making instruments like bells, tanpura and violin?

Q 7 Non-metals are bad conductors of electricity. Name a non metal which is conductor of electricity and is used in making electrodes.

Q 8 Is diamond element or compound? Write its composition.

Q 9 Non- metals are usually soft. Do you know any hard non-metal? If yes ,name it.

Q 10 From the following list make two separate lists one for physical changes and other for chemical changes.
baking of bread, switching of electric bulb, curdling of milk, dissolving sodium chloride in water, photosynthesis, rusting of iron, evaporation of water, formation of dew, sublimation of camphor, burning of charcoal or LPG, clotting of blood, crystallization of sugar, ripening of fruit, cooking of vegetables, melting of wax,

Q 11 Why water is a compound not a mixture?

Q 12 Which of the following will show properties of its constituents?
Methane or soil

Q 13 Name solute in brass

Q 14 Particle size of a substance was 50 nm. Is it solution or colloid or suspension

Q 15 A solution is prepared by dissolving 12g of sodium chloride in 150 g of solution. Calculate the mass percentage of solution.

Q 16 The properties of Solution, colloid and suspension are different from each other. Why?

Q 17 Name the solvent present on tincture of iodine.

Q 18 sample of vinegar has 40 gram of acetic acid in 140 ml of water. Calculate mass by volume percentage of the solution.

Q 19 Air is mixture of many gases. Is there any gas I it which acts as solvent? If yes name it and give reasons to support your answer.

Q 20 Write one example each of the following
(i) Aerosol
(ii) Emulsion
(iii) Foam
(iv) Sol
(v) Gel

Q 21 What is toned milk? Name the process and apparatus used to prepare toned milk in dairy.

Q 22 How will you separate the mixture of pebbles and bits of papers.

Q 23 Describe how will you separate the mixture of sand and sugar.

Q 24 Which of the following mixtures cannot be separated by sublimation?
(a) Mixture of ammonium chloride and sodium chloride
(b) Mixture of sugar and iodine
(c) Mixture of sodium chloride and anthracene
(d) Mixture of ammonium chloride and benzoic acid.

Q 25 Write the name of technique used to separate the mixture of engine oil and small pieces of metal.

Q 26 What is the principle of centrifugation?

Q 27 Name the process used to prepare the crystals of pure copper sulphate. Give reasons also.

Q 28 Name the process used to separate different gases from air.

Q 29 Mud is separated from muddy water by adding a chemical. Name it.

Q 30 There are many methods of separation of components of mixture. How will you decide which is the best method for separating constituents of given mixture?

Q 31 How will you separate the constituents of mixture of water, edible oil, and common salt

Q 32 Separate the constituents of mixture comprising of chalk powder, ammonium chloride and iron pieces.

Q 33 A liquid mixture has two liquids A and B. The boiling point of liquid A is 56^0C and that of liquid B is 70^0 C. Name the process by which these liquids can be separated.

Q 34 Why crystallization is better technique than evaporation

Q 35 Name the processes used to make river water fit for drinking