

TECHNO INDIA GROUP PUBLIC SCHOOL
QUESTION BANK
CHAPTER – IS MATTER AROUND US PURE
CLASS – IX

SECTION – A (1 MARK EACH)

1) MULTIPLE CHOICE QUESTIONS :

- 1) When a liquid is spun rapidly, the denser particles are forced to the bottom and the lighter particles stay at the top. This principle is used in :
- a) Centrifugation b) Fractional Distillation c) Evaporation d) Tunneling
- 2) In “tincture of iodine” , find the solute and solvent ?
- a) Alcohol is the solute and iodine is the solvent.
b) Iodine is the solute and alcohol is the solvent.
c) Any component can be considered as solute or solvent.
d) Tincture of iodine is not a solution.
- 3) A pure substance which is made up of only one kind of atom and cannot be broken into two or more simpler substances by physical or chemical means is referred to as :
- a) A compound b) A molecule c) An element d) A mixture
- 4) When two liquids do not mix , they form two separate layers and are known as :
- a) Miscible liquids b) Immiscible liquids c) Saturated liquids d) Super-saturated liquids
- 5) How can one separate ammonium chloride from a mixture containing ammonium chloride and sodium chloride ?
- a) Precipitation b) Sublimation c) Chromatography d) Centrifugation

6) The amount of solute present per unit volume or per unit mass of the solution/solvent is known as :

- a) Composition of solute
- b) Concentration of solute
- c) Concentration of solvent
- d) Concentration of solution

7) According to the definition of pure substance, which of the following is a pure substance ?

- a) Ice
- b) Mercury
- c) Iron
- d) All of these

8) Which of the following are physical changes ?

i) Melting of iron metal ii) Rusting of iron iii) Bending of iron rod iv) Drawing a wire of iron metal .

- a) (i),(ii) & (iii)
- b) (i), (ii) & (iv)
- c) (i), (iii) & (iv)
- d) (ii),(iii)&(iv)

SECTION – B (3 MARKS EACH)

II) ANSWER THE FOLLOWING SHORT ANSWER TYPE QUESTIONS:

9) List four properties of Non-Metal. Give two examples.

10) What is “ Tyndal Effect” ? Name two mixtures which show this effect.

11) What is Chromatography ? Write two applications.

12) Write two differences between Pure Substances and Mixtures. Give one example of each.

13) Why is Crystallisation better than Evaporation for the separation of mixtures?

14) Give one example of each of the mixtures showing the following characteristics :

- a) A mixture of two volatile components .

- b) A mixture of two volatile components with a boiling point difference less than 25k.
c) A mixture of a volatile and Non-volatile component.

15) Differentiate between Simple Distillation and Fractional Distillation. List the two conditions essential for using distillation as a method for separation of the components from a mixture.

16) (a) Write two properties of Suspension. (b) Identify Solute and Solvent in 80% solution of Ethyl Alcohol and Water.

SECTION – C (5 MARKS EACH)

III) ANSWER THE FOLLOWING LONG ANSWER TYPE QUESTIONS:

17) Define a Solution. If 10 ml of H_2SO_4 (Sulphuric Acid) is dissolved in 90 ml of water, calculate the concentration of the solution.

18) Define Distillation. What type of mixtures can be separated by Distillation. Draw a Labelled Diagram of the apparatus used for Fractional Distillation.

19) You are given a mixture of sand, water and mustard oil. How will you separate the components of this mixture ? Explain with the help of different separation methods involved in it.

20) With the help of a Flow Sheet Diagram, show the separation of different gases from liquified air.

21) (a) “Water is considered a compound of hydrogen and oxygen and not a mixture of hydrogen and oxygen” – Comment on it.

(b) a solution contains 50g of sugar in 450g of water. Calculate the concentration in terms of mass by mass percentage of the solution.

22) (a) 110g of a solute is present in 550g of solution. Calculate the concentration of solution.

(b) Give any three points of difference between True Solution, Colloidal Solution and Suspension