Chemistry Class IX

Revision Questions

Chapters :

1) Matter in our surroundings
2) Is matter around us pure?

Section – A (01 marks each)

1. The boiling point of alcohol is 78 °C. What is the temperature on Kelvin scale?
2. The rate of evaporation of a liquid increases on heating. Explain.
3. Why do the gases exert more pressure on the walls of the container than the solids?
4. Which gas is called dry ice? Why?
5. Name two elements which exist in liquid state at room temperature.
6. What is physical state of water at 100 °C?
7. Why does a desert cooler cool better on a hot dry day?
8. What type of clothes should we wear in summer?
9. Give reasons for the following observations: Naphthalene balls disappear with time without leaving any solid.
10. Name the technique to separate butter from curd.
11. What type of mixtures are separated by the technique of crystallization?
12. In what respect does a true solution differ from a colloidal solution?

Section – B (02 marks each)

13. Account for the following: Steam at 100 °C produces more sever burn than boiling water at the same temperature.
14. Define the term sublimation. Name any two substances that sublime.
15. Write the appropriate method of separation of the following mixtures:
    a) Ammonium chloride from common salt
    b) Colors in a dye
    c) Cream from milk
    d) Acetone from water
16. In which category, homogeneous or heterogeneous mixture would you place colloids? Give any two important characteristics of suspension.
17. Classify the following into physical / chemical changes:
    a) Digestion of food
    b) Melting of ice
    c) Mixing of iron filling and Sulphur powder.
    d) Rusting of Iron.
18. A student recorded the mass of dry raisins as 6.0 g and mass of raisins after soaking them in water for about 5 hours as 10.5 g. Calculate the percentage of water absorbed by raisins.
19. What mass of sodium sulphate will react with 5.22 g of barium chloride to produce 6.10 g of sodium chloride and 2.8 g of barium sulphate? Name the law which governs your answer.
20. While determining the melting point of ice it was observed that even when ice cubes were being moderately heated using the gas burner, the temperature did not rise for some time till the whole ice melts. Give possible reason.
21. What happens when iron nail is dipped in copper sulphate solution for 20 minutes? Write your observation. Identify the type of change involved.
22. Explain how during the burning of a candle, both physical and chemical changes take place.

Section – C (03 marks each)

23. Tabulate the differences between the three states of matter with respect to the flowing:
    i) Inter-particle force of attraction and ii) Rigidity
24. Differentiate between evaporation and boiling. Mention the factors affecting the rate of evaporation.
25. Give scientific reason:
    a) Our palm feels cool when nail polish remover is poured on it.
    b) The smell of hot sizzling food reaches us faster than that of cold food.
26. a)Differentiate between elements and compounds
    b) Identify the colloids from the following mixtures:
    i) Soda, ii) Inc, iii) Blood and iv) Air
27. a) State the principle used in separating a mixture of two immiscible liquids.
    b) Name the separation technique you would use to separate:
    i) Drugs from blood , ii) Oxygen gas from air, iii) Butter from cream
    iv) Dyes from black ink
28. A gas containing air is upside down on gas jar of bromine vapor. It is observed that after some time, the gas jar containing air also becomes completely reddish brown.
    (i) Explain why this happen and ii) Name the process involved
29. With the help of a labelled diagram, describe in brief an activity to show sublimation of ammonium chloride.
30. Cough syrup is a common medicine used in cold and cough. It contains alcohol (ethanol) as one of its constituents. Some of the people use it as an alternative of wine.
    (i) What should the government do to prevent the misuse of such medicines?
    (ii) Which is the most common for expressing the concentration of a solution?
    (iii) If 300 g of cough syrup contain 30 g glucose and 15 g alcohol, what is the concentration in the solution?
31. Give two examples of each of the following:
    (i) Colloids, ii)Suspension and iii) True solution

Section – D (05 marks each)

32. a)How does a solution of sugar in water differ from a solution of starch in water with respect to the following: i) Tyndall effect, ii) Filterability and iii) Stability
    b) What do you mean by a compound?
33. a) List the characteristic properties of matter?
    b) What are the metalloids? Give Examples?
34. a) What do you mean by saturated solution? How does the solubility of a substance change with temperature?
    b) 25 g of alum is dissolved in 175 g of water. Calculate the mass by mass percentage of solution.