

Class: IX

Subject: Chemistry

1. What is dry ice ? why is it so called ?
2. Steam causes severe burns than boiling water. why?
3. State the three characteristic properties of particles of matter.
4. Define the following
 1. solute
 2. solvent
 3. saturated solution
 4. colloidal solution
 5. suspension
5. What is centrifugation ? write its two applications.
6. Write the difference betw1.een
 1. element and compound
 2. compound and mixture (any 2 points)
7. What is mole ? find the no of moles in 20g of CaCO_3 . (Ca=40 ,C=12 ,O=16)
8. Clothes dry faster when we spread them out. why?
9. Name the following
 1. the first scientist who used the term element.
 2. the most abundant element in the humanbody.
 3. a metal which is liquid at room temperature.
 4. a soft metal
 5. a liquid non metal
 6. the most malleable metal
10. What is an aqueous solution ? Give two examples.
11. Give an example for each of
 1. Aerosol
 2. Sol
 3. Solution
12. What is Tyndall Effect ?

13. A solution is prepared by dissolving 18g of salt in 520g of water. What is the mass % of the solution?

14. What is a true solution? Write its characteristics.

15. The solubility of potassium chloride in water is 34.7 in 100g of water. The density of the solution is 1.3g/ml. Calculate the concentration of potassium chloride in the solution in % (m/m).

16. Perform an experiment to demonstrate the sublimation of ammonium chloride and sodium chloride.

17. State the law of constant proportion. If 10g of carbon burns in 100g of oxygen giving 50g of CO₂. What is the mass of CO₂ formed if 20g of carbon burns in 100g of oxygen?

18. What is physical and chemical change? Give 2 examples for each.

19. If 400g of cough syrup contains 40g of glucose and 20g of alcohol, what is the concentration of the solution?

20. Name the technique used to separate :

1. butter from curd 2. salt from sea water 3. camphor from salt 4. cooking oil and water

21. Write a flow chart for the separation of components of air.

22. Find the mass of 0.5 moles of Al₂O₃. (Al=27, O=16)

23. State any 5 Dalton's postulates.

24. What do you mean by liquefaction of gas?

25. Why does evaporation cool a liquid?

26. After rains, wet roads dry quickly. Why?

27. Write the symbols for the following:

1. Mg 2. Ca 3. Cu 4. Pb 5. Fe 6. Hg 7. Ne 8. Ag 9. Na 10. Sn 11. Mn 12. Si

28. 25ml of ethanol is present in 150ml of its aqueous solution. What is the concentration of the solution?

29. What is distillation. What kind of mixtures can be separated by distillation?

30. Distinguish among True Solution, Suspension and colloidal solution in a tabular form.