

# JSUNIL TUTORIAL

## Sample Paper – 2012

### Class – IX      Subject – Science (Chemistry)

1. What are the characteristics of particles of matter?
2. A sponge can be pressed easily, still it is called a solid. Why?
3. Differentiate solids liquids and gases on the basis of (a) diffusion , (b) density.
4. Solids are denser as compared to liquids , still ice floats on water. Explain.
5. Define Latent heat of fusion.
6. Why does water vapour has more energy than water at same temperature?
7. How can gases be liquefied?
8. List four factors which affect the rate of evaporation.
9. Name and define the fourth and fifth state of matter.
10. Why does a desert cooler cool better on a hot, dry day?
11. Why does temperature remain constant during the boiling of water even though heat is supplied continuously?
12. What is the chemical name of Dry Ice? Why is it called dry ice?
13. What are alloys? Is it a mixture or a compound? Give reasons.
14. List four reasons to support that water is a compound and not a mixture.
15. Distinguish between homogeneous and heterogeneous mixture. Classify the following mixtures as homogeneous or heterogeneous-
  - i) Tincture of iodine
  - ii. Smoke
  - iii. Brass
  - iv. Sugar solution
16. Distinguish between true solution, suspension and colloid on the basis of stability, filterability and type of mixture.
17. How will you prepare a 10% solution of glucose in water?
18. Identify the physical and chemical changes from the following:-
  - i) Burning of magnesium in air
  - ii) Tarnishing of silver spoon
  - iii) Sublimation of iodine

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iv) Electrolysis of water

19. State one similarity and one difference between evaporation and boiling.
20. Explain the following giving examples: (a) Saturated solution, (b) Pure substance, (c) Colloid, (e) Suspension.
21. How would you confirm that a colourless liquid given to you is pure water?
22. Which of the following will show "Tyndall effect"?  
(a) salt solution (b) milk (c) copper sulphate solution (d) starch solution.
23. Action of heat on blue vitriol is a physical as well as chemical change. Justify.
24. How can you prove that air is a mixture?
25. What is the concentration of a solution in terms of mass percentage if it contains 20 g of a salt in 250 g of water?
26. Fill in the blanks:-
  1. Particles of matter are continuously moving, so they possess \_\_\_\_\_.
  2. The melting point of ice is \_\_\_\_\_.
  3. 293 K = \_\_\_\_\_ ° C.
  4. The concentration of a solution is the amount of \_\_\_\_\_ present in a given volume of solution.
  5. \_\_\_\_\_ is the only metal which is liquid at room temp.
  6. \_\_\_\_\_ mixtures have uniform composition.
  7. S.I. unit of latent heat of melting is \_\_\_\_\_.
  8. Rate of evaporation \_\_\_\_\_ when surface area of liquid is increased.
  9. Particles of matter have \_\_\_\_\_ between them.
  10. Soil and minerals are not \_\_\_\_\_ substances.
  11. \_\_\_\_\_ number of elements occur in nature.
  12. \_\_\_\_\_ is a non-metal which is liquid at room temperature.