

Jaswant Modern Senior Secondary School, Class IX ,Chemistry Worksheet

Q1. How will you justify that ice, water and steam are the three states of a substance and not different substances?

Q2. Solids have regular geometrical shape where as liquids do not. Explain why?

Q3. Arrange the following substances in increasing order of their interparticle forces of attraction: water, common salt and carbon dioxide.

Q4. What is difference between fluidity and viscosity? Explain both with the help of examples.

Q5. The 'sea water' can be classified as a homogeneous as well as heterogeneous mixture. Comment.

Q6. What would you observe when:-

- a) A saturated solution of potassium chloride prepared at 60°C is allowed to cool to room temperature.
- b) A mixture of iron fillings and sulphur powder is heated strongly.
- c) An aqueous sugar solution is heated to dryness.

Q7. Smoke and fog both are aerosols. In what way are they different?

Q8. Name the process associated with the following:-

- a) Dry ice is kept at room temperature and at one atmospheric pressure.
- b) A drop of ink placed on the surface of water contained in a glass spreads throughout the water.
- c) A potassium permanganate crystals is in a beaker and water is poured into the beaker with stirring.
- d) An acetone bottle is left open and the bottle becomes empty.
- e) Milk is churned to separate cream from it.
- f) Settling of sand when a mixture of sand and water is left undisturbed for sometime.
- g) Fine beam of light entering through a small hole in a dark room, illuminates the particles in its path.

Q9. Discuss briefly the effect of temperature on the change of state of a solid into a liquid and that of liquid to a gas.

Q10. What is evaporation? How does it differ from boiling? Explain the various factors on which evaporation depends.

Q11. Give reason for the following:-

- a) Why does cooking in vessels open to atmosphere take long time in mountains?
- b) Why does cooking in pressure cookers take less time?
- c) Name any other advantage of using pressure cooker instead of cooking in open vessels?

Q12. A student observed that water was boiling at 105°C in a pressure cooker. At this heat was cut off and the lid of the pressure cooker was opened. It was observed that water was still boiling even though heat was cut off. Give possible reason.

Q13. With possible explanation, explain whether following is true or false?

- a) Sublimation occurs only when the solid is heated.
- b) A lighter gas can move downwards and a heavier gas can move upwards.
- c) Interconversion of matter is a constant temperature process.

Q14. Give reasons for the following:-

- a) We can easily move our hand in air but not through liquid or solid.
- b) Water flows faster than honey.
- c) Solids have only vibratory motion.

Q15. What do you understand by diffusion? Give one example.

Q16. You are provided with a mixture of naphthalene and sodium chloride by your teacher. Suggest an activity to separate them with well labeled diagram.

Q17. It is a hot summer day, Priyanshi and Ali are wearing cotton and nylon clothes respectively. Who do you think would be more comfortable and why?

Q18. Why does the temperature of a substance remain constant during its melting point or boiling point?

Q19. Calculate the mass of sulphuric acid present in 100 ml of 15% mass by mass solution of sulphuric acid. (density =1.10 g/ml)

Q20. Is galvanized iron sheet, a homogeneous or heterogeneous mixture?Comment.