



INDIAN SCHOOL DARSAIT
DEPARTMENT OF CHEMISTRY



Subject : SCIENCE Topic : Matter In Our Surroundings Date of Worksheet : 20/04/2017

Resource Person: Mrs Sandhya Jitheesh

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Name of the Student :

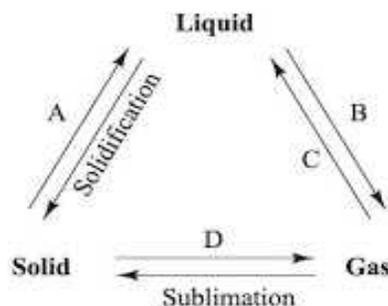
Class & Division : IX-----

Roll Number :

- 1 The property to flow is unique to fluids. Which one of the following statements is correct? 1
 - a. Only gases behave like fluids.
 - b. Gases and solids behave like fluids.
 - c. Gases and liquids behave like fluids.
 - d. Only liquids are fluids.
- 2 Why does a solid change into liquid on heating? 1
- 3 Which single term is used to describe the mixing of copper sulphate and water kept in a beaker on its own? a 1
- 4 Carry out following conversion (a) 500 Celsius to Kelvin (b) 200 Kelvin to Celsius. 1
- 5 What happens to a gas if its inter molecular space is reduced? 1
- 6 Seema visited a Natural Gas Compressing Unit and found that the gas can be liquefied under specified conditions of temperature and pressure. While sharing her experience with her friends she got confused. Help her to identify the correct set of conditions. 1
 - a. Low temperature, low pressure
 - b. High temperature, low pressure
 - c. Low temperature, high pressure
 - d. High temperature, high pressure
- 7 Which of the following substances is most compressible? 1

CO₂, H₂O, NaCl.
- 8 "A substance has a definite volume but no definite shape". State whether this substance is a solid, liquid or a gas. 1
- 9 Wearing synthetic clothes in summers is usually avoided. Why? 1
- 10 What is the significance of boiling point & melting point of a substance? 1
- 11 What is dry ice chemically? 1
- 12 Why does the temperature of a substance remain constant at its melting point or boiling point? 1

- 13 How can you justify that table is a solid? 1
- 14 The Kelvin scale temperature is 0 K. What is the corresponding Celsius scale temperature? 1
- 15 How would you find out whether a sample of sodium chloride is pure or impure? 1
- 16 What is the state of water at 100°C, 0°C and 4 °C? ½ mark each
- 17 What is compressibility? How it is negligible in solids? 2
- 18 How is pressure developed in a container full of a gas? 2
- 19 Name the factors affecting evaporation. 2
- 20 2



The above triangle shows the inter conversion of states of matter. Complete the triangle by labelling the arrows marked A, B, C and D.

- 21 What is sublimation? Explain with help of an activity and a diagram. 2
- 22 In Which of the following set up the rate of diffusion is faster? Why? 2
- a. 5 gram of Potassium permanganate crystals in 100 ml of water at 25 °C
- b. 5 gram of potassium permanganate crystals in 100 ml of water at 60 °C
- 23 You want to wear your favourite shirt to party, but the problem is that it is still wet after a wash. What steps would you take to dry it faster? 2
- 24 Name the process associated with each of the following conversions. 2
- a. Ammonium chloride changes to vapours on heating.
- b. Water droplets appearing on the outer wall of the beaker containing ice cold water.
- c. Solid wax on heating changes to liquid wax.
- d. Water seeps through the pores of the earthen pot and disappears.
- 25 Comment on the following. 3
- a. Evaporation produces cooling.
- b. Rate of evaporation of an aqueous solution decreases with increase in humidity.
- c. Sponge though compressible is a solid.