INDIAN SCHOOL DARSAIT
DEPARTMENT OF CHEMISTRY

Subject : SCIENCE	Topic : Matter In Our Surroundings	Date of Worksheet : 28.04.2019
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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.

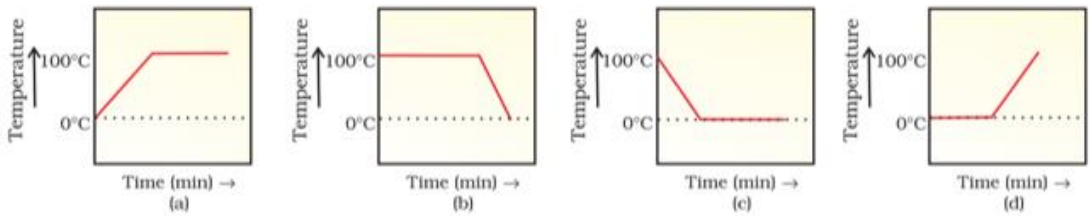
2 Which one of the following sets of phenomena would increase on raising the temperature? 1
(a) Diffusion, evaporation, compression of gases (b) Evaporation, compression of gases, solubility
(c) Evaporation, diffusion, expansion of gases
(d) Evaporation, solubility, diffusion, compression of gases

3 A few substances are arranged in the increasing order of 'forces of attraction' between their particles. 1
Which one of the following represents a correct arrangement?
(a) Water, air, wind (b) Air, sugar, oil
(c) Oxygen, water, sugar (d) Salt, juice, air

4 During summer, water kept in an earthen pot becomes cool because of the 1
phenomenon of
(a) diffusion (b) transpiration (c) osmosis (d) evaporation

5 Seema visited a Natural Gas Compressing Unit and found that the gas can be liquefied under 1
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.
a. Low temperature, low pressure b. High temperature, low pressure
c. Low temperature, high pressure d. High temperature, high pressure

6 A student heats a beaker containing ice and water. He measures the temperature of the content of the 1
beaker as a function of time. Which of the following would correctly represent the result? Justify your choice.



7 Which of the following substances is most compressible? CO_2, H_2O, NaCl. 1

8 Match the physical quantities given in column A to their S I units given in column B : ½ mark each

(A)	(B)
(a) Pressure	(i) cubic metre
(b) Temperature	(ii) kilogram
(c) Density	(iii) pascal
(d) Mass	(iv) kelvin
(e) Volume	(v) kilogram per cubic metre

9 Which single term is used to describe the mixing of copper sulphate and water kept in a beaker on its own? 1

10 Carry out following conversion (a) 500 Celsius to Kelvin (b) 200 Kelvin to Celsius. 1

11 "A substance has a definite volume but no definite shape". State whether this substance is a solid, liquid or a gas. 1

12 Wearing synthetic clothes in summers is usually avoided. Why? 1

13 What is the significance of boiling point & melting point of a substance? 1

14 What is dry ice chemically? 1

15 Why does the temperature of a substance remain constant at its melting point or boiling point? 1

16 Name the fourth and fifth states of matter? 1

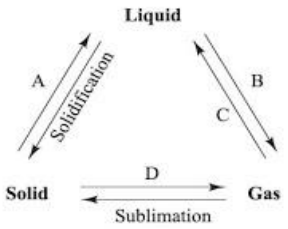
17 The Kelvin scale temperature is 0 K. What is the corresponding Celsius scale temperature? 1

18 What is compressibility? Why solids are not compressible? 2

19 What is the physical state of water at (i) 25^{o} C (ii) 0^{o}C (c) 100^{o}C (d) 300 ^{o}C 2

20 Name the factors affecting evaporation. 2

21 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.

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 ^{o} C
b. 5 gram of potassium permanganate crystals in 100 ml of water at 60 ^{o} C

23 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.

24 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.