



## INDIAN SCHOOL AL WADI AL KABIR

<b>Class: IX</b>	<b>Department: SCIENCE 2020 – 2021</b> <b>SUBJECT : CHEMISTRY</b>	<b>Date of completion: -</b> <b>12.05.2020</b>
<b>Worksheet No: 01</b>	<b>CHAPTER: MATTER IN OUR SURROUNDINGS</b>	<b>Note:</b> <b>A4 FILE FORMAT</b>
<b>Name of the student:</b>	<b>Class &amp; Sec:</b>	<b>Roll No:</b>

### MULTIPLE CHOICE QUESTIONS (1 MARK)

- Which of the following phenomenon always results in the cooling effect?  
(a) Condensation  
(b) Evaporation  
(c) Sublimation  
(d) None of these
- Which of the following causes the temperature of a substance to remain constant while it is undergoing a change in its state?  
(a) Latent heat  
(b) Lattice energy  
(c) Loss of heat  
(d) None of these
- Materials existing as liquids have:  
(a) Boiling point and melting point above room temperature.  
(b) Boiling point and melting point below room temperature.  
(c) Boiling point above room temperature and melting point below room temperature.  
(d) None of the above.
- Intermolecular force of attraction is maximum in  
(a) Solids (b) liquids (c) gases (d) plasma particles.
- Gases are liquefied under  
(a) High pressure, high temperature.  
(b) High pressure, low temperature  
(c) Low pressure, high temperature.  
(d) Low pressure, low temperature.
- Which of the following processes does not convert a liquid into vapours?  
(a) Boiling (b) heating (c) evaporation (d) condensation.

### ASSERTION REASON TYPE QUESTIONS (1 MARK)

For the following questions, two statements are given- one labelled *Assertion* (A) and the other labelled *Reason* (R). Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below

- Both A and R are true and R is the correct explanation of the assertion.
- Both A and R are true but R is not the correct explanation of the assertion.
- A is true but R is false.
- A is false but R is true.

7. Assertion:-Ice at  $0^{\circ}$  Celsius is more effective in cooling than water at the same temperature.  
Reason:-Water at  $0^{\circ}\text{C}$  has extra energy in the form of latent heat of fusion.
8. Assertion:-Water at room temperature is a liquid.  
Reason:-Water has fluidity and assumes the shape of the containing vessel.
9. Assertion:-Gases do not have a fixed volume.  
Reason:-Gas particles are orderly arranged and there is maximum force of attraction between the particles.

### **OBJECTIVE TYPE QUESTIONS ( 1 MARK)**

10. List any two properties of particles of matter.
11. Define melting point of a solid.
12. Solids are said to have negligible compressibility. Name a solid that can be compressed.
13. What is the physical state of water at  $25^{\circ}\text{C}$ ?
14. How does temperature affect the rate of evaporation?
15. Name two sublimable substances.

### **SHORT ANSWER TYPE QUESTIONS ( 3 MARKS)**

16. (i) A rubber band can change its shape on stretching. Will you classify it as solid or not? Justify?  
(ii) Gases completely fill the vessel in which they are kept. Give reasons.
17. (i) Liquid generally have lower density as compared to solids, but ice floats on water. Find out, why.  
(ii) What is dry ice?
18. (i) What is the difference between latent heat of fusion and latent heat of vaporization?  
(ii) What is the relation between boiling point of a liquid and the intermolecular forces of attraction between the particles of a liquid?
19. Explain why temperature remains constant during the change of state of matter?
20. Both boiling and evaporation convert a liquid into vapour. What is the difference between the two processes?

### **LONG ANSWER TYPE QUESTIONS ( 5 MARKS)**

21. (i) Give reason to explain why it takes longer time to dry wet clothes in humid weather?  
(ii) Why should we wear cotton clothes during summer?  
(iii) On suffering from fever which will lower down your body temperature, more ice or ice cold water?
22. (a) Convert the following temperatures to Celsius scale:  
(i) 300K (ii) 573K (iii) 100K

- (b) Convert the following temperatures to Kelvin scale:  
(i)  $250^{\circ}\text{C}$  (ii)  $100^{\circ}\text{C}$
23. (a)  $\text{CO}_2$  is a gas. Write its two gaseous properties to justify it.  
(b) How can we liquefy a gas?  
(c) Write the full form of CNG and LPG
24. (a) What is matter?  
(b) The rate of diffusion of liquids is higher than that of solids. Why?  
(c) Write two properties of gases and two properties of solids.
25. Explain sublimation with the help of a neat labelled diagram.
- PREVIOUS YEAR BOARD QUESTIONS**
26. Account for the following:-  
(a) When sugar crystals dissolve in water, the level of water does not rise appreciably.  
(b) Doctors advise to put strips of wet cloth on the forehead of a person having high fever.  
(c) Naphthalene balls disappear with time without leaving any solid residue.  
(d) A wooden table should be called a solid.  
(e) Dogs generally hang out their tongue in summer.
27. (a) Evaporation causes cooling. Explain the reason for this effect.  
(b) Explain two examples from our daily life where we feel the effect of cooling due to evaporation.
28. Discuss the factors which affect evaporation.
29. What produces more severe burns, boiling water or steam? Give reason for your answer.
30. Explain how three states of matter arise due to variation in the characteristics of the particles.

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