MATTER IN OUR SURROUNDINGS

CHOOSE THE CORRECT ANSWER:

1. The quantity of matter present in an object is called its:
   (a)Weight (b)Gram (c)Mass (d)Density

2. The boiling point of alcohol is 78ºC. What is this temperature in Kelvin scale:
   (a)373 K (b)351 K (c)375 K (d)78 K

3. In which phenomena water changes into water vapour below its boiling point.?
   (a)Evaporation (b)Condensation (c)Boiling (d)No such phenomena exist

4. The boiling point of water on Celsius and Kelvin scale respectively is:
   (a)373, 273 (b)0, 273 (c)273, 373 (d)100, 373

5. The liquid which has the highest rate of evaporation is:
   (a)Petrol (b)Nail- polish remover (c)Water (d)Alcohol

6. When we put some crystals of potassium permanganate in a beaker containing water, we observe that after sometime whole water has turned pink. This is due to:
   (a)Boiling (b)Melting of potassium permanganate crystals
   (c)Sublimation of crystals (d)Diffusion

7. The state of matter which consists of super energetic particles in the form of ionized gases is called:
   (a)Gaseous state (b)Liquid state (c)Bose- Einstein condensate
   (d)Plasma state

8. The force that binds the particles of matter together is known as:
   (a)Intermolecular space (b)Bond (c)Intermolecular force (d)Nuclear force

9. The change of a liquid into vapour is called:
   (a)Vaporization (b)Solidification (c)Sublimation (d)None of these

10. Which of the following describes the liquid phase?
    (a)It has a definite shape and a definite volume
    (b)It has a definite shape but not a definite volume
    (c)It has a definite volume but not a definite shape
    (d)It has neither a definite shape nor a definite volume

11. When a teaspoon of solid sugar is dissolved in a glass of liquid water, what phase or phases are present after mixing:
    (a)Liquid only (b)Still solid and liquid (c)Solid only (d)None of these

12. What is the term used to describe the phase change of a liquid to a gas?
(a)Boiling (b)Condensation (c)Melting (d)None of the above

13. What term is used to describe the phase change of a solid to a liquid?
(a)Freezing (b)Melting (c)Boiling (d)None of the above

14. What is the term used to describe the phase change as a liquid becomes a solid?
(a)Evaporation (b)Condensation (c)Freezing (d)None of the above

15. Which has the least energetic molecules?
(a)Solids (b)Liquids (c)Gases (d)Plasmas

2 Marks Questions:

1. Define Latent heat of vapourisation.
2. Explain why temperature remain constant during the change of state of any substance?
3. Define Sublimation with examples.
4. Do we sweat more on a dry day or humid day ? Justify your reason.
5. Why do we see water droplets on the outer surface of a glass containing ice cold water?
6. Convert the following temperature to the Kelvin scale (a) 25°C (b) 373°C
7. List two properties that liquids have in common with solids.
8. List two properties that liquids have in common with gases.
9. What will happen to the melting point temperature of ice if some common salt is added to it? Justify your answer.
10. How will you show that air has maximum compressibility?

3 Marks Questions:

1. Define the term (a) Latent heat of fusion (b) Latent heat of vaporization
2. State the effect of (i) surface area (ii) nature of the liquid on the rate of evaporation.
3. Liquids generally have lower density as compared to solids. But you must have observed that ice floats on water. Why?
4. What is the physical state of water at 250°C, 100°C, 0°C?
5. Give reasons :
i) A sponge can be pressed easily; still it is called a solid.
ii) Water vapours have more energy than water at same temperature.
6 . What are intermolecular forces ? How are these related to the three states of matter ?
7. Is it possible to liquify atmospheric gases? If yes, suggest a method.

5 marks Questions:

1. a) What is meant by evaporation? What are the factors on which the rate of evaporation depends upon? b) How does evaporation causes cooling?
2. State the properties of all the five states of matter.
3. Define : Melting point , Freezing point & Boiling point