

Revision Question Bank

1. Why does the smell of hot cooked food reach you several meters away within second?
2. How does spreading of wet clothes quicken their drying? Explain.
3. Write one important characteristic property of particles of matter.
4. Why do people in villages use earthen pots in summer to cool water?
5. What is the physical state of water at the following temperatures?
(a) 25°C (b) 0°C (c) 100°C
6. (a) Arrange the following substances in the increasing order of force of attraction between the particles water, hydrogen and sand.
(a) Why does the temperature remain constant at the melting point?
(b) Which property of gases makes it possible to fill large volume of gases in small cylinders?
(c) 'Water as ice has a cooling effect whereas water as steam may cause severe burns'. Explain these observations.
7. Comment on the following statements
(a) Evaporation produces cooling.
(b) Rate of evaporation of an aqueous solution decreases with increase in humidity.
(c) Sponge though compressible is a solid.
8. Explain the factors on which rate of evaporation depends?
9. List any two properties that liquids have in common with gases.
10. Why do we wear cotton cloths during summer?

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MCQ's [Practical Based Questions]

- When a colloidal solution of albumin in water is filtered. The colour of filtrate is :
(a) milky white (b) pale yellow (c) colourless (d) yellow.
- A suspension of chalk in water can be prepared by:
(a) adding powdered chalk in water.
(b) adding powdered chalk in water followed by continuous stirring.
(c) placing chalk piece in hot water.
(d) adding chalk piece in dilute hydrochloric acid.
- When a true solution is filtered, the residue left on the filter paper is :
(a) very less in amount. (b) pale yellow in colour.
(c) larger in amount. (d) no residue is left on filter.
- Tyndall effect can be observed easily in which of the following solutions :
(a) salt solution (b) sugar solution (c) gum (d) suspension.
- The correct order which describes the true solution, colloidal solution and suspension in the order of their increasing stability is :
(a) suspension < colloidal solution < true solution.
(b) colloidal solution < true solution < suspension.
(c) true solution < colloidal solution < suspension.
(d) colloidal solution < suspension < true solution.
- If common salt is added to be unsaturated solution of water and sugar, the solution will show one of the following characteristics :
(a) it starts showing tyndall effect. (b) it behaves as a colloidal solution
(c) it remains as a true solution. (d) it behaves as a suspension.
- Which of the following is a mixture of elements ?
(a) kerosene + water (b) sodium chloride + ammonium chloride
(c) sodium chloride + water (d) sulphur + iron filings.
- What may happen when dilute H_2SO_4 is added to a mixture of iron filings and sulphur ?
(a) H_2S gas is evolved and the solution turns light green.
(b) H_2 gas is evolved and the solution turns brown.
(c) both H_2S and H_2 gases are evolved without any change in the colour of the solution.
(d) SO_2 gas is evolved and the solution turns light green.

9. What is observe when a magnet is moved over (i) mixture of iron filings and sulphur
(ii) compound formed (FeS) after heating of iron filings and sulphur?
(a) all particles, i.e., iron filings, sulphur and FeS are attracted towards the magnet.
(b) both iron filings are FeS are attracted while sulphur powder is not attracted.
(c) iron fillings are only attracted while FeS are sulphur powder are not attracted.
(d) none of these particles are attracted towards the magnet.
10. A student by mistake mixed sulphur powder with iron filings. The following techniques were suggested to separate the sulphur from the mixture, out of which he has to choose one:
A. dissolving in carbon disulphide, filtration, evaporation.
B. dissolving in water at room temperature and filtration.
C. dissolving in hot water, filtration and evaporation.
D. dissolving in ice cold water and filtration.
The correct technique is :
(a) A (b) B (c) C (d) D.

Answers

1.	a	2.	b	3.	d	4.	c	5.	a
6.	c	7.	d	8.	b	9.	c	10.	a

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Previous Years Question Bank (Matter in our surrounding)

1. (a) Illustrate with an example that in a substance physical and chemical changes can take place together.
(b) Which of the following are chemical changes :
(i) Mixing of Iron filings and sand (ii) Growth of plant
(iii) Rusting of Iron (iv) Freezing of water **[CBSE Schools -2016-17]**
2. Explain that boiling is a bulk phenomenon but evaporation is a surface phenomenon. **[CBSE Schools -2016-17]**
3. "Solid carbon dioxide is called dry ice". Justify this statement. **[CBSE Schools -2016-17]**
4. Give reasons for the following observations: **[CBSE Schools -2016-17]**
(a) The smell of lighted incense stick reaches several metres away.
(b) A liquid has fixed volume but not fixed shape.
(c) Ice floats on water
(d) wooden door is called a solid at room temperature.
(e) Sponge is a solid yet it can be compressed.
5. Define liquid state of a substance. State important properties associated with the liquid state. **[CBSE Schools -2016-17]**
6. Explain the process of sublimation with the help of a diagram. **[CBSE Schools -2016-17]**
7. (a) 'Evaporation causes cooling'. Comment on this statement. **[CBSE Schools -2016-17]**
(b) Explain how water kept in an earthen pot, becomes cool during summer?
8. After a hot sunny day when we sprinkle water on roof we feel cool. Explain the reason for it. **[CBSE Schools -2016-17]**
9. (i) Convert the following temperatures into Kelvin scale: **[CBSE Schools -2016-17]**
(a) 100°C (b) 25°C (c) 20°C
(ii) Draw a flow chart to show inter-conversion of matter.

10. What do the following observations about matter demonstrate about its physical nature?
- (i) When we dissolve sugar in water the water level does not rise.
- (ii) The smell of Dettol can be detected even on repeated dilution. **[CBSE Schools -2016-17]**
11. Explain any three factors which affect the rate of evaporation. **[CBSE Schools -2016-17]**
12. What do you mean by concentration of a solution? Mention two ways, of expressing the concentration of a solution. **[CBSE Schools -2016-17]**
13. (a) Explain why wet clothes dry faster when we spread them out? **[CBSE Schools -2016-17]**
14. Define latent heat of vaporization. Give reason why steam causes more severe burns than boiling water. **[CBSE Schools -2016-17]**
15. Compare the three states of matter on the basis of density, compressibility, rate of diffusion. Give four reasons to prove that the pen you are writing with is a solid. **[CBSE Schools -2016-17]**
16. Why the inter-conversion of states of matter is considered as a physical change? Give three 3 reasons to justify your answer. **[CBSE Schools -2016-17]**
17. (a) Define evaporation and explain the role of humidity at the rate of evaporation.
- (b) Why clothes do not dry up easily during rainy season? **[CBSE Schools -2016-17]**
18. Explain: **[CBSE Schools -2016-17]**
- (a) Sponge is a solid through it is compressible. (b) Rubber band is a solid though it is stretchable.
19. What are the three different states of matter? Which one of these has a definite shape, distinct boundaries and fixed volume? Compare the three on the basis of compressibility. **[CBSE Schools -2016-17]**
20. Compare the following in three states of matter. **[CBSE Schools -2016-17]**
- (a) Particle motion (b) Force of attraction between particle (c) Space between particles
21. (a) Define the process of evaporation. **[CBSE Schools -2016-17]**
22. Name the states of matter that: **[CBSE Schools -2016-17]**
- (a) has definite shape, volume and mass.

- (b) has minimum force of attraction between the particles.
- (c) has maximum force of attraction between the particles.
23. (a) List out-three differences. between-Evaporation-and Boiling. [CBSE Schools -2016-17]
(b) Why perspiration keeps our body cool?
24. How does pressure help in liquefaction of gas? Name two liquefied gases used in daily life. [CBSE Schools -2016-17]
25. What is effect of increase in temperature on the solid state of matter? Explain. [CBSE Schools -2016-17]
26. People of village use earthen pots to get cool water in summer. Explain the reason that why water remains cool in earthen pots? [CBSE Schools -2015-16]
27. (a) Name any two processes which illustrate that on heating movement of particles of matter increases.
(b) Define fluidity. Explain why do liquids flow? [CBSE Schools -2015-16]
28. List six physical properties of metals. Name two metals. Name a metal which is liquid at room temperature? [CBSE Schools -2015-16]
29. (a) When common salt is added to water, will there be any change in volume? Give reason.
(b) Write one similarity between three states of matter. [CBSE Schools -2015-16]
30. (a) Define the process of vaporization.
(b) List four factors which affect the rate of evaporation. [CBSE Schools -2015-16]
31. State the physical state of water at the following temperatures:
(a) 373 K (b) 300 K (c) 200 K [CBSE Schools -2015-16]
32. Suggest a method to liquefy atmospheric gases. [CBSE Schools -2015-16]
33. Convert the following into $^{\circ}\text{C}$ [CBSE Schools -2015-16]
(a) 373 K (b) 478 K (c) 649 K
34. Distinguish between solids and gases in a tabular form under the following characteristics.
(a) Rigidity (b) Compressibility

45. Give reasons for the following: [CBSE Schools -2014-15]
- (a) Our body feels cool when we apply perfume on it.
 - (b) We get the smell of pizza easily as compared to ice cream.
46. (a) Define latent heat of Fusion. [CBSE Schools -2014-15]
- (b) Why is ice at 273 K more effective in cooling than water of same temperature?
- Explain
- (c) How is Kinetic energy of a substance can be increased?
47. (a) Explain the effect of temperature on the movement of particles of matter. [CBSE Schools -2014-15]
- (b) Give reason why we get smell of hot sizzling food even when we are metres away from it?

Chapter Test

Maximum Marks: 30

Maximum Time: 1 hour

1. Give reasons for the following: [2]
- (a) A sponge is a solid but can be easily compressed.
 - (b) Clothes dry faster on a windy day.
2. Answer the following questions: [3]
- (a) For any physical state of a substance, the temperature remains constant during its change of state.
 - (b) Water kept in an earthen pot becomes cool in summer.
 - (c) We are able to sip hot tea from a saucer rather than from a cup.
3. (a) Differentiate between three states of matter on the basis of the following properties. [3]
- (i) Intermolecular forces. (ii) Arrangement of molecules.
 - (b) Liquid generally has lower density as compared to solids. But you must have observed that ice floats on water. Give reason.

4. Answer the following questions: [3]
- (a) Differentiate between three states of matter on the basis of the following properties.
- (i) Intermolecular forces. (ii) Arrangement of molecules.
- (b) Liquid generally has lower density as compared to solids. But you must have observed that ice floats on water. Give reason.
5. Answer the following questions [3]
- (a) Solids and liquids are collectively known as condensed phases. Explain.
- (b) At what temperature solid ice and liquid water exist together?
- (c) Why are gases compressible but not the liquids?
6. Answer the following questions [3]
- (a) Liquids generally have lower density as compared to solids. But you must have observed that ice floats on water. Find out why?
- (b) What is the physical state of water at
- (i) 250°C (ii) 100°C
- (c) For any substance, why does the temperature remain constant during the change of state?
7. State some factors that affect rate of evaporation of water. Discuss how each one of these factors affects the rate of evaporation. [3]
8. Explain the following [5]
- (a) Fusion (b) Kelvin (c) Latent heat
- (d) Latent heat of fusion (e) Atmospheric pressure
9. (a) What happens to sugar when it is dissolved in water? Where does the sugar go? What information do you get about the nature of matter from the [5]
- dissolution of sugar in water?
- (b) Which type of compounds can be purified by sublimation?

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