

Class: IX
Subject: Science
Topic: Matter in our surroundings
No. of Questions: 20

1. Give reasons for the following observation:
the smell of hot sizzling food reaches you several metres away, but to get the smell from cold food you have to go close.
2. Give an account of the classification of matter.
3. What are the two ways in which the physical state of matter can be changed ?
4. Define the term volatile Liquid.
5. Which of the following is accompanied by cooling?
 - A. Vaporization
 - B. Evaporation
 - C. Condensation
 - D. None of these
6. A drop of Dettol got evenly distributed in water. How ?
7. When ink overflows from a fountain pen, we use blotting paper to remove excess of ink on the paper. Why?
8. Convert the following temperature to Celsius scale:
 - (a) 300 K
 - (b) 573 K
9. At a pressure of 2 atmosphere a fixed mass of hydrogen occupies a volume of 8 litres. What pressure must be maintained if the volume is to be increased to 10 litres, temperatures remaining constant ?
10. After rains why do rain drops dry away easily – on a cloudy day or on a sunny day ? State reason also.

11. Which of the following statements is not correct?
- A. The density of ice is less than the density of water.
 - B. To convert a temperature on the kelvin scale to Celsius scale, subtract 273 from the given temperature.
 - C. To convert a temperature on the Celsius scale to kelvin scale, add 273 to the given temperature.
 - D. Vaporization of a liquid causes cooling.
12. Why is motor oil more viscous than water ? Does motor oil have a greater surface tension than water.
13. Arrange the following substances in increasing order of intermolecular force of attraction :
- Water, sugar, oxygen
14. Large volume of Compressed natural gas (CNG) is available in small cylinders to us due to its property of –
- A. High in flammability
 - B. Easy availability
 - C. High Compressibility
 - D. Low density
15. Which phenomenon occurs during the following changes?
- (i) Size of naphthalene balls decrease.
 - (ii) wax melts in the sun.
 - (iii) drying of wet clothes.
 - (iv) formation of clouds.
 - (v) Density of liquids is more than gases.
16. Densities of two gases are in the ratio 1 : 2 and their temperatures are in a ratio 2 : 1, then the ratio of their respective pressures is
- A. 1 : 1
 - B. 1 : 2
 - C. 2 : 1
 - D. 4 : 1

17. Why we close the bottle of nail polish remover immediately after using it?
18. What are super cooled liquids?
19. Which of the following will not sublime?
 - A. Camphor
 - B. Ammonium chloride
 - C. Bromine
 - D. Iodine
20. What change or changes in the state of a gas bring about each of the following effects ?
 - (a) the number of impacts per unit time on a given container wall increases.
 - (b) the average energy of impact of molecules with the wall of the container decreases.
 - (c) the average distance between gas molecules increases,
 - (d) The average speed of molecules in the gas mixture is increased.