

Question 1. Which of the following are matter?

Chair, air, love, smell, hate, almonds, thought, cold, cold-drink, smell of perfume.

Question 2. Give reasons for the following observation:

The smell of hot sizzling food reaches you several meters away, but to get the smell from cold food you have to go close.

Question 3. A diver is able to cut through water in a swimming pool. Which property of matter does this observation show?

Question 4. What are the characteristics of the particles of matter?

Question 5. The mass per unit volume of a substance is called density. (density = mass/volume).

Arrange the following in order of increasing density: air, exhaust from chimneys, honey, water, chalk, cotton and iron.

Question 6. (a) Tabulate the differences in the characteristics of states of matter.

(b) Comment upon the following: rigidity, compressibility, fluidity, filling a gas container, shape, kinetic energy and density.

Question 7. Give reasons

(a) A gas fills completely the vessel in which it is kept.

(b) A gas exerts pressure on the walls of the container.

(c) A wooden table should be called a solid.

(d) We can easily move our hand in air but to do the same through a solid block of wood we need a karate expert.

Question 8. Liquids generally have lower density as compared to solids. But you must have observed that ice floats on water. Find out why.

Question 9. Convert the following temperature to Celsius scale:

(a) 300 K (b) 573 K

Question.10. What is the physical state of water at:

(a) 250°C (b) 100°C