

Board – ICSE

Class – 8th

Topic – Physical quantities and measurement

1. Define the term density of a substance.
2. How does the density of a liquid (or gas) vary with temperature?
3. A given quantity of a liquid is heated. Which of the following quantity will vary and how? (a) mass, (b) volume and (c) density
4. Describe an experiment to determine the density of a liquid.
5. Explain the meaning of the statement 'relative density of aluminium is 2.7'
6. The density of water is 1.0 g cm^{-3} . The density of iron is $7.8 \times 10^3 \text{ g cm}^{-3}$. The density of mercury is 13.6 g cm^{-3} .

Ans the following:

- (a) Will a piece of iron float or sink in water ?
 - (b) Will a piece of iron float or sink in mercury ?
7. It is easier to swim in sea water than in river water. Explain the reason.
 8. Icebergs floating on sea water are dangerous for ships. Explain the reason.
 9. What is a submarine? How can it be made to dive in water and come to the surface of water?
 10. A balloon filled with hydrogen rises in air. Explain the reason.
 11. Name the S.I. unit of density. How is it related to g cm^{-3} ?
 12. Describe an experiment to determine the density of the material of a coin.
 13. Define the term relative density of a substance.
 14. Distinguish between density and relative density.
 15. Which of the following will sink or float on water? (Density of water = 1 g cm^{-3})
 - (a) body A having density 500 kg m^{-3}
 - (b) body B having density 2520 kg m^{-3}
 - (c) body C having density 1100 kg m^{-3}
 - (d) body D having density 0.85 g m^{-3}