

**Question 1.** What is condensation? How is the condensation of a gas carried out?

Solution

**Question 2.** Why do solids not diffuse?

Solution

**Question 3.** Convert the following Kelvin temperature to degrees Celsius.

- a. 175 K
- b. 295 K
- c. 300 K
- d. 225 K

Solution

**Question 4.** Convert the following Celsius temperature to Kelvin temperature.

- a. 25 °C
- b. -15 °C
- c. 0 °C
- d. 3 °C

Solution

**Question 5.** Arrange the following substances in increasing order of intermolecular force of attraction:

water, sugar, oxygen

Solution

**Question 6.** What is the physical state of water at the following temperatures?

- (a) 25 °C
- (b) 0 °C
- (c) 100 °C

Solution

**Question 7.** Why does the temperature of a substance remain constant during melting and boiling even when heat is being supplied to it continuously?

Solution

**Question 8.** Explain the diffusion of copper sulphate into water.

**Question 8.** Why do the gases exert more pressure on the walls of the container than the solids?

Solution

**Question 9.** The process in which a solid is converted directly into a gas is called

sublimation. Iodine is an element that sublimates. A sample of solid iodine in a stoppered flask was allowed to stand undisturbed for several days. Crystals of solid iodine grew on the sides of the flask. Explain at the molecular level what happened?

**Question 10.** Give three examples of crystalline and amorphous solids.

Solution

Crystalline Solids	amorphous solids
NaCl	Rubber
CaF <sub>2</sub>	Plastic
ZnS	Glass

**Question 11.** Why is motor oil more viscous than water? Does motor oil have a greater surface tension than water.

**Question 12.** Describe why a drop of food coloring in a glass of water slowly becomes evenly distributed without the need for stirring?

**Question 13.** Liquids mix more slowly than gases. Why?

**Question 14.** Define the following terms:

- Melting point
- Freezing point
- Boiling point