

XI Chemistry Worksheet

Time: 30 min

Ch#5 : States of Matter -01

Full Marks: 20

Instructions:

1. All questions are compulsory.
2. Please give the explanation for the answer where applicable.

Q1 - Which properties determine the state of matter?

(1 Mark)

Q2 - What do you understand by van der Waals forces?

(1 Mark)

Q3 - Deduce Ideal Gas Equation.

(3 Marks)

Q4 - Explain why, liquids like ether and acetone are kept in cool places.

(2 Marks)

Q5 - CO₂ is heavier than O₂ and N₂ gases present in the air. But it does not form the lower layer of the atmosphere. Why?

(2 Marks)

Q6 - Give the difference between total kinetic energy and translational kinetic energy. For what type of molecules, the two are equal?

(3 Marks)

Q7 - How is the partial pressure of a gas in a mixture related to the total pressure of the gaseous mixture?

(1 Mark)

Q8 - 103 ml of CO₂ were collected at 27°C and 763 mm pressure. What will be its volume if the pressure is changed to 721 mm at the same temperature?

(2 Marks)

Q9 - An open vessel contains 200 mg of air at 17°C. What weight percent of air would be expelled if the vessel is heated to 117°C?

(3 Marks)

Q10 - At 0°C, the density of a gaseous oxide at 2 bar is same as that of nitrogen at 5 bar. What is the molecular mass of the oxide?

(2 Marks)