

XI Chemistry Worksheet

Time: 30 min

Ch#5 : States of Matter -02

Full Marks: 20

Instructions:

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

- Q1 - Distinguish a solid, liquid and gas in terms of melting point and boiling point?
(3 Marks)
- Q2 - What is the difference between intermolecular forces and intra-molecular forces?
(2 Marks)
- Q3 - Define triple point of a substance?
(1 Mark)
- Q4 - Which type of intermolecular forces exist among the following molecules?
(a) H₂O molecules.
(b) H₂S molecules.
(c) Cl₂ and CCl₄ molecules
(d) He atoms and HCl molecules
(2 Marks)
- Q5 - What do you understand by standard temperature and pressure?
(1 Mark)
- Q6 - Write the ideal gas equation for n moles of gas.
(1 Mark)
- Q7 - Which of the following has-
(a) highest vapour pressure
(b) lowest vapour pressure.
Acetone, Ethyl alcohol, Water, Diethyl ether
(2 Marks)
- Q8 - 34.05 mL of phosphorus vapour weighs 0.0625g at 546^o C and 0.1 bar pressure. What is the molar mass of phosphorous?
(2 Marks)
- Q9 - The density of a gas is 3.80 g L⁻¹ at S.T.P. Calculate its density at 27^oC and 700 torr pressure.
(3 Marks)
- Q10 - 1 mole of SO₂ gas occupies a volume of 350 mL at 27^o C and 50 atm pressure. Calculate the compressibility factor of the gas. Write the type of deviation shown by the gas from ideal behavior.
(3 Marks)