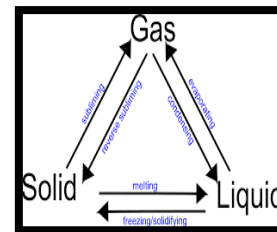


National Institute of Open Schooling
Senior Secondary Course : Chemistry
Chapter 5 : The Gaseous State and Liquid State
Worksheet-5



1. In different cities atmospheric pressure are as follows:-

<u>Cities</u>	Shimla	Banglore	Delhi	Mumbai
P in N/m ²	1.01 X 10 ⁶	1.2 X 10 ⁵	1.02 X 10 ⁵	1.21 X 10 ⁶

Consider the above data and mark the place at which liquid will boil first and why?

- Can we apply Dalton's law of partial pressure to a mixture of Carbon Monoxide and Oxygen?
- Which is heavier, dry air or wet air and why?
- What would have happened to the molecular motion in a gas if the molecular collisions were not elastic?
- Gases like CO₂ and CH₄ shall more deviation from the ideal gas behavior as compared to gases like H₂ and He. Explain.
- The level of mercury in a Capillary tube is lower than the level outside when the Capillary is inserted in mercury. Explain.
- Give reasons why liquids like ether and acetone are kept in cool places.
- Explain the type of intermolecular forces exist among the following molecules? (i) H₂S molecules (ii) H₂O molecules, (iii) Cl₂ and CCl₄ molecules, (iv) SiH₄ molecules (v) He atoms and Hcl molecules.
- How do you convert (a) Pressure in atmospheres into SI units? (b) Temperature in °C to temperature in °F?
- At a certain altitude, the density of air is 1/10th of the density of the earth's atmosphere and temperature is -10°C. What is the pressure at the altitude?. Assume that air behaves like an ideal gas, like uniform composition and is at S.T.P at the earth's surface.