Based on Unit 5 State of Matter

M.M. 30   **Time: 90 minutes**

1. A substance which can flow will be
   a. Liquid   b. gas   c. Solid   d. a and b both.   1

2. V α n state which law of gas
   a. Gay-Lusac   b. Avagadro   c. Boyels   d. Charles   1

3. State Charles law and give explanation for that.   2

4. Give 1 atmospheric pressure in Pascal and mm.   2

5. State Boyel's law and deduce expression also.   2

6. Calculate the temperature at which 28gm N_2 occupise a volume of 10 liters at 24.6 atm.   2

7. Calculate the resulting temperature change if a 52 dm^3 sample of a gas is at fix pressure
   expanded to 104 dm^3.   2

8. At 25^0C and 760mm of Hg pressure a gas occupies 600 ml volume. What will be the pressure at
   a height where temperature is 10^0C and volume of gas is 640 ml?   2

9. Distinguish among Solid, Liquid and Gas.   4

10. What do you mean by intermolecular forces and define Dipole-Dipole and London forces. 4

11. Deduce the Ideal Gas Equation and write the value of R.   4

12. 34.05 ml of phosphorus vapour weighs 0.625 gm at 546^0C and 0.1 bar pressure. Find the molar
    mass of phosphorus.   4

For detailed study of physics for class X and XII and preparation of Medical and Engineering Entrances
Read
Hand Book of Fundamental of Physics, By Ashutosh Pandey &
Hand Book of Fundamental of Mathematics, By Ashutosh Pandey