

Model Question paper

Gaseous state - I 2

11th Standard

Chemistry

Reg.No. :

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I. Answer all the questions.

II. Use blue pen only.

Time : 00:45:00 Hrs

Total Marks : 35

Part - A

2 x 1 = 2

- 1) If a gas expands at a constant temperature.
(a) Number of molecules of the gas decreases (b) The kinetic energy of the molecules decreases (c) The kinetic energy of the molecules decreases
(d) The kinetic energy of the molecules increases
- 2) The molecules of a gas A travel four times faster than the molecules of gas B at the same temperature. The ratio of molecular weight (M_A/M_B) will be
(a) 1/16 (b) 4 (c) 1/4 (d) 16

Part - B

3 x 2 = 6

- 3) A sample of an ideal gas escapes into an evacuated container, there is no change in the kinetic energy of the gas. Why?
- 4) What is the change in temperature when a compressed real gas is allowed to expand adiabatically through a porous plug?
- 5) Define Boyle's Law and Charle's Law.

Part - C

4 x 3 = 12

- 6) Write the significance of Vanderwaal's constants.
- 7) Write the limitations of Vanderwaal equation of state.
- 8) Define Joule-Thomson effect.
- 9) What is meant by inversion temperature?

Part - D

3 x 5 = 15

- 10) Explain the causes for deviation for real gases from ideal behavior.
- 11) Describe Linde's process of liquefaction of gases with neat diagram.
- 12) What is meant by adiabatic demagnetization? Explain its use in liquefaction of gases.
