

CHEMISTRY-11	Chapter#03 - First Half (3.1 to 3.6) Test-4		
	Name:	Class:	ID:
Date: / /	Marks Total: 30	Marks Obtained:	
Time Allowed: 50 Min.			

Maximum Marks: 10 **(OBJECTIVE TYPE)** Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

- If absolute temperature of a gas is doubled and the pressure is reduced to one half, the volume of the gas will be:
 - Remain unchanged
 - Increase four times
 - Reduce to $\frac{1}{4}$
 - Be doubled
- The value of general gas constant "R" in $\text{dm}^3 \text{ atm K}^{-1} \text{ mol}^{-1}$ is:
 - 62.4
 - 0.0821
 - 62400
 - 1.987
 - 28 g
 - 14 g
 - 1.4 g
 - 2.8 g
- Feeling uncomfortable breathing in un-pressurized cabins is due to:
 - High pressure of CO_2
 - Fatigue
 - Low pressure of O_2
 - Low pressure of CO_2
 - Solid
 - Liquid
 - Gas
 - Plasma
- The least common state of matter in the universe is:
 - Solid
 - Liquid
 - Gas
 - Plasma
- The STP unit of pressure is:
 - Atm
 - Pa
 - Nm^{-2}
 - psi
- In gas laws, we study the effect of change in different conditions on the _____ of the gas.
 - Temperature
 - Pressure
 - Volume
 - All
- Which represents the highest temperature?
 - 1°F
 - 1°C
 - 1 K
 - Both 'b' & 'c'
- If the temperature, pressure and the quantity of gas are doubled, the volume will become:
 - Same
 - Double
 - Four times
 - Eight times
- If the molecules of the gas mixture start attracting each other, the total pressure will become _____ the sum of individual partial pressures of gases.
 - Less than
 - More than
 - Equal to
 - None
- H_2 diffuses four times rapidly than:
 - He
 - CH_4
 - O_2
 - CO_2

Maximum Marks: 20

(SUBJECTIVE TYPE)

Time Allowed: 40 Min.

SECTION-I

Q.2: Give brief answers to the following questions: (12)

- i. What happens to the positions of isotherms, when they are plotted at higher temperatures?
- ii. Explain that value of k in Boyle's law depends on: (a) Temperature (b) Quantity of gas.
- iii. Absolute zero is the lowest possible (coldest) temperature. Explain.
- iv. What is R ? What is its physical significance?
- v. Prove that $d = PM/RT$.
- vi. Do you think that 1 mole of H_2 and 1 mole of NH_3 at $0^\circ C$ and 1 atm pressure will have Avogadro's number of particles?

SECTION-II

NOTE: Attempt All Questions:

(08)

Q.3: Prove general gas equation ($PV=nRT$).

Q.4: State Dalton's law of partial pressure and write its four applications.