

<b>CHEMISTRY-11</b>	<b>Chapter#03 (Complete) Test-1</b>		
	Name:	Class:	ID:
Date: / /	<b>Marks Total: 40</b>	<b>Marks Obtained:</b>	
Time Allowed: 70 Min.			

Maximum Marks: 08

**(OBJECTIVE TYPE)**

Time Allowed: 10 Min.

**NOTE:** Tick The Correct Option:

- Number of molecules in one  $\text{dm}^3$  of water is close to:
 

(a)  $\frac{6.02}{22.4} \times 10^{23}$       (b)  $\frac{12.04}{22.4} \times 10^{23}$       (c)  $\frac{18}{22.4} \times 10^{23}$       (d)  $55.6 \times 6.02 \times 10^{23}$
- A real gas obeying van der Waals equation will resemble ideal gas if:
 

(a) Both "a" and "b" are large      (b) Both "a" and "b" are small  
 (c) "a" is small and "b" is large      (d) "a" is large and "b" is small
- The value of general gas constant "R" in  $\text{dm}^3 \text{ atm K}^{-1} \text{ mol}^{-1}$  is:
 

(a) 62.4      (b) 0.0821      (c) 62400      (d) 1.987
- Absolute zero has been derived from:
 

(a) Boyle's law      (b) Charles' law      (c) Avogadro's law      (d) Graham's law
- The mass of one  $\text{dm}^3$  of  $\text{O}_2$  is \_\_\_\_\_ the mass of one  $\text{dm}^3$  of  $\text{CH}_4$ .
 

(a) Half      (b) Equal to      (c) Twice      (d) Four times
- Boltzmann:
 

(a) Kinetic molecular theory      (b) Kinetic equation  
 (c) Law of distribution of energies      (d) Law of distribution of velocities
- Above critical temperature, a substance cannot exist in:
 

(a) Gaseous state      (b) liquid state      (c) Solid state      (d) Both 'b' and 'c'
- For an ideal gas, the value of compressibility factor is \_\_\_\_\_ under all conditions.
 

(a) 1      (b) 2      (c) 3      (d) 0

Maximum Marks: 32

**(SUBJECTIVE TYPE)**

Time Allowed: 60 Min.

**SECTION-I**

**Q.2: Give brief answers to the following questions: (20)**

- Give various units of pressure.
- Justify that the volume of given mass of a gas becomes theoretically zero at  $-273^\circ\text{C}$ .
- Define partial pressure.
- Deep sea divers or scuba divers do not use normal air in breathing, why?
- Lighter gases diffuse more rapidly than heavier gases. Give reason.
- Polar gases have higher critical temperature than non-polar gases. Why?

- vii. Differentiate between an ideal and a real gas.
- viii.  $H_2$  and He are ideal at room temperature but  $SO_2$  and  $Cl_2$  are non-ideal Explain.
- ix. What is plasma.?
- x. What are the characteristics of plasma?

## **SECTION-II**

**NOTE:** Attempt All Questions:

(12)

Q.0: What is ideal gas constant 'R'? Calculate its values in different units.

Q.0: What is Graham's law of diffusion? Give its experimental verification.

Q.0: Explain non-ideal behaviour of gases.