

<b>CHEMISTRY-11</b>	<b>Chapter#03 (Complete) Test-3C</b>		
	Name: _____	Class: _____	ID: _____
Date: / /	<b>Marks Total: 30</b>	<b>Marks Obtained:</b>	
Time Allowed: 50 Min.			

Maximum Marks: 06	<b>(OBJECTIVE TYPE)</b>	Time Allowed: 10 Min.
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<b>NOTE:</b> Tick The Correct Option:			
1.	The order of the rate of diffusion of gasses $\text{NH}_3$ , $\text{SO}_2$ , $\text{Cl}_2$ , and $\text{CO}_2$ is:		
	(a) $\text{NH}_3 > \text{SO}_2 > \text{Cl}_2 > \text{CO}_2$	(b) $\text{NH}_3 > \text{CO}_2 > \text{SO}_2 > \text{Cl}_2$	
	(c) $\text{Cl}_2 > \text{SO}_2 > \text{CO}_2 > \text{NH}_3$	(d) $\text{NH}_3 > \text{CO}_2 > \text{Cl}_2 > \text{SO}_2$	
2.	The deviation of gas from ideal behavior is maximum at:		
	(a) $-10^\circ\text{C}$ and 5.0 atm	(b) $-10^\circ\text{C}$ and 2.0 atm	(c) $100^\circ\text{C}$ and 2.0 atm
	(d) $0^\circ\text{C}$ and 2.0 atm		
3.	The commonly used unit of pressure by meteorologists is:		
	(a) Atmosphere	(b) Pascal	(c) Millibar
	(d) psi		
4.	In Fahrenheit scale, absolute zero is equal to:		
	(a) $-459.69^\circ\text{F}$	(b) $-241.16^\circ\text{F}$	(c) $-549.288^\circ\text{F}$
	(d) $-308.16^\circ\text{F}$		
5.	Plasma was discovered by:		
	(a) Van der Waals	(b) J.J. Thomson	(c) Clausius
	(d) William Crooks		
6.	Which one is an example of natural plasma?		
	(a) Auroras	(b) Fluorescent bulbs	
	(c) Neon signs	(d) None	

Maximum Marks: 24	<b>(SUBJECTIVE TYPE)</b>	Time Allowed: 40 Min.
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### SECTION-I

<b>Q.2: Give brief answers to the following questions:</b>		<b>(16)</b>
i.	What do you mean by the term isotherm?	
ii.	Describe different scales of thermometry.	
iii.	How does Dalton's law explain the process of respiration?	
iv.	Describe law of distribution of velocities.	
v.	Derive Avogadro's law from KMT.	
vi.	Define compressibility factor.	
vii.	What are the units of 'a' and 'b'?	
viii.	What are the characteristics of plasma?	

### SECTION-II

<b>NOTE:</b> Attempt All Questions:		<b>(08)</b>
Q.3:	What is Graham's law of diffusion? Give its experimental verification.	
Q.0:	Calculate the mass of $1 \text{ dm}^3$ of $\text{NH}_3$ gas at $30^\circ\text{C}$ and 1000 mm Hg pressure, considering that $\text{NH}_3$ is behaving ideally.	
Q.4:	What is ideal gas? Real gases deviate from ideal behaviour at low temperature and high pressure. Explain.	

Q.0:	<p>a) Two moles of <math>\text{NH}_3</math> are enclosed in a <math>5 \text{ dm}^3</math> flask at <math>27^\circ\text{C}</math>. Calculate pressure exerted by the gas assuming that:</p> <ul style="list-style-type: none"><li>i) It behaves like an ideal gas</li><li>ii) It behaves like a real gas</li></ul> <p><math>a = 4.17 \text{ atm dm}^6 \text{ mol}^{-2}</math> <math>b = 0.0371 \text{ dm}^3 \text{ mol}^{-1}</math></p>