CHEMISTRY-11	Chapter#03 (Complete) Test-2C		
	Name:	Class:	ID:
Date: / /	**Marks Total: 30**	**Marks Obtained:**	
Time Allowed: 50 Min.			

Maximum Marks: 06 **(OBJECTIVE TYPE)** Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

1. **Number of molecules in one 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) $55.6 \times 6.02 \times 10^{23}$
2. **Which of the following will have highest rate of diffusion?**
   (a) CO_2 (b) NH_3 (c) HCl (d) SO_2
3. **1 atm is equal to:**
   (a) 101325 torr (b) 101325 Pa (c) 101325 Nm^{-2} (d) Both 'b' & 'c'
4. **If the pressure on a gas is doubled, the density of the gas will become:**
   (a) Double (b) Four times (c) Half (d) Same
5. **Kinetic equation was derived by:**
   (a) Bernoulli (b) Maxwell (c) Clausius (d) Boltzmann
6. **The SI units of van der Waals constant 'a' are:**
   (a) $Nm^{-4}\ mol^{-2}$ (b) $Nm^{-2}\ mol^{-2}$ (c) $Nm^{+4}\ mol^{-2}$ (d) $Nm^{+2}\ mol^{-2}$

Maximum Marks: 24 **(SUBJECTIVE TYPE)** Time Allowed: 40 Min.

SECTION-I

Q.2: Give brief answers to the following questions: **(16)**

i. Define pressure. What is the SI unit of pressure?
ii. The graph between P and PV is a straight line. Explain why?
iii. What is R? What is its physical significance?
iv. Do you think that 1 mole of H_2 and 1 mole of NH_3 at 0°C and 1 atm pressure will have Avogadro's number of particles?
v. Differentiate between diffusion and effusion.
vi. Polar gases have higher critical temperature than non-polar gases. Why?
vii. H_2 and He are ideal at room temperature but SO_2 and Cl_2 are non-ideal Explain.
viii. What is plasma.?

SECTION-II

NOTE: Attempt All Questions: **(08)**

Q.3: How volume and pressure were corrected by Van der Waals?

Q.4: One mole of methane gas is maintained at 300 K. Its volume is 250 cm^3. Calculate the pressure exerted by the gas under the following conditions:

i) When the gas is ideal.

ii) When the gas is non-ideal. (a = 2.253 atm $dm^6\ mol^{-2}$ b = 0.0428 $dm^3\ mol^{-1}$)