ECAT Chemistry Chapter 3 Gases Online Test

Sr	Questions	Answers Choice
1	The rate of diffusion of a gas is :	A. Inversely proportional to its density B. Inversely proportional to square root of its molecular mass C. Directly proportional to molecular mass D. Directly proportional to its density
2	According to Boyle's law. which parameters give a straight line parallel to x-axis, when we plot a graph between	A. V and T B. P and V C. P and 1/V D. P and PV
3	If absolute temperature of a gas is doubled and the pressure is reduced to one half, the volume of gas will :	A. remain unchanged B. increase four times C. reduce to 1/4 D. be doubled
4	Which statement about gases is not correct ?	A. The spread throughout the vessel. B. Pressure is due to collision C. There are large spaces between the molecules. D. molecules are arranged regularly.
5	The order of the rate of diffusion of gases NH_3,SO_2, CL_2, and CO_2 IS :	A. NH_{3 >}SO_{2 >}CL_{2 >}CO₂ B. NH_{3 >}CO_{2 >} SO_{2 >}CL₂ C. CL_{2 >}SO_{2 >} CO_{2 >}NH₃ D. NH_{3 >}CO₂ _>CL_{2 >}SO₂
6	Cooling happens under the Joule Thomson Effect due to sudden	A. Contraction B. Absorption C. Expansion D. All of above
7	Gases show uniform behaviour towards their	A. Internal conditions B. External conditions C. Internal and external conditions D. None of above
8	Gases deviate from ideal behavior at high pressure. Which of the following is correct for non-ideality ?	A. At high pressure, the gas molecules move in one direction only. B. At high pressure, the collisions between the gas molecules are increased manifold. C. At high pressure, the volume of gas becomes insignificant. D. At high pressure, the inter molecular attraction become significant.
9	The density of a gas is directly proportional to pressure, inversely proportional to temperature and directly proportional to	A. Viscosity B. Molar mass C. Momentum D. All of above
10	The intramolecular force in gases are :	A. Weak B. Normal C. Very weak D. Strong
11	The density of a gas is directly and volume at constant temperature for a gas is	A. Isobaric B. Isothermal C. Isotherm D. None of above
12	The movement of molecules from a region of high pressure to vacuum is called :	A. Evaporation B. Effusion C. Conduction D. Difusion
13	Cooling happens under the Joule Thomson Effect due to sudden :	A. Contraction B. Absortption

		C. Expansion D. All of above
14	All gases can be compressed by :	A. Keeping constant pressure B. Decreasing pressure C. Increasing pressure D. None of the above
15	In solids, the temperature of is the measure of	A. Rotational kinetic energies B. <span style="font-family: Arial, sans-serif; font-size: 10.5pt; line-height: 14.98px; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">transnational kineticenergies C. <span style="font-family: Arial, sans-serif; font-size: 10.5pt; line-height: 14.98px; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;"><span style="font-family: Arial, sans-serif; font-size: 10.5pt; line-height: 14.98px; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">Vibrationalkineticenergies D. None of the above
16	Which of the following will have the same number of molecules at STP ?	A. 280 CM³ of CO² and 280 CM³ of N₂O<o:p></o:p> B. 11.2 dm3 of O₂ and 32 g of O₂ <o:p></o:p> C. 44 g of CO₂ and 11.2 dm³ of CO<o:p></o:p> D. 28 g of N2 and 5.6 dm³ of oxygen<o:p></o:p>
17	Pressure remaining constant, at which temperature volume of gas will become twice of what it is at 0°C ?	A. 546<o:p></o:p> B. 200 C. 546K D. 273K
18	The highest temperature at which a substance can exist as a liquid is called its	A. Critical temperature B. Zero temperature C. Absolute temperature D. None of above
19	The relation ships b/w volume of given amount of gas and prevailing conditions of temperature and pressure are :	A. Charles's law B. Graham's law C. Boyle's law D. Gas law
20	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
21	Which of the following is the simplest form of matter?	A. Gaseous state B. Liquid State C. Solid State D. All of above
22	The ratio of volume to temperature on Kelvin scale is constant according to	A. Charle's law B. Newton's law C. Coulomb's law D. Boyle's law
23	In Boyle's law which of the following pair remains constant :	A. Temperature and quality of a gas. B. Pressure and quality of a gas. C. Temperature and pressure D. Temperature and quantity of a gas.
24	The deviation of a gas from ideal behavior is maximum at :	A. -10<span style="font-size:11.0pt;line-height:107%; font-family:"Calibri",sans-serif;mso-ascii-theme-font:minor-latin;mso-fareast-font-family: Calibri;mso-fareast-theme-font:minor-latin;mso-hansi-theme-font:minor-latin; mso-bidi-font-family:"Times New Roman";mso-bidi-theme-font:minor-bidi; mso-ansi-language:EN-US;mso-fareast-language:EN-US;mso-bidi-language:AR-SA">°C and 5.0 atm B. -10<span style="font-family: Calibri, sans-serif;

		font-size: 11pt; line-height: 15.6933px;">°C and 2.0 atm C. 100°C and 2.0 atm D. 0°C and 2.0 atm
25	The rate of diffusion of a gas in	A. Inversely proportional to its density B. Inversely proportional to square root of its molecular mass C. Directly proportional to molecular mass D. Directly proportional to its density
26	In Boyle's law which of the following pair is variable :	A. Temperature and quantity of a gas. B. Pressure and volume C. Volume and quantity of a gas. D. Pressure and quantity of a gas.
27	In Boyle's law which of the following pair remains constant	A. Temperature and quality of a gas B. Pressure and quality of a gas C. Temperature and pressure D. Temperature and quantity of a gas
28	A graph b/w P and 1/V at constant temperature and number of moles is parallel to :	A. Y-axis B. Z-axis C. X-axis D. None of above
29	Gases of air always remain in random motion and do not settle due to :	A. Difference in molecular masses of air gases. B. Difference in partial pressure of gas molecules. C. Unequal number of different gas molecules. D. Elastic collision of gas molecules.
30	In gases and liquids, temperature is the measure of :	A. Average transnational kinetic energies of molecules. B. Average vibrational kinetic energies of molecules. C. Average rotational kinetic energies of molecules. D. None of above
31	Which Statement about gases is not correct?	A. They spread throughout the vessel B. Pressure is due to collision C. There are larger spaces between the molecules D. Molecules are arranged regularly
32	The deviation of a gas from ideal behavior is maximum at :	A. -10<span style="font-size:11.0pt;line-height:107%; font-family:"Calibri",sans-serif;mso-ascii-theme-font:minor-latin;mso-fareast-font-family: Calibri;mso-fareast-theme-font:minor-latin;mso-hansi-theme-font:minor-latin; mso-bidi-font-family:"Times New Roman";mso-bidi-theme-font:minor-bidi; mso-ansi-language:EN-US;mso-fareast-language:EN-US;mso-bidi-language:AR-SA">°C and 5.0 atm B. -10°C and 2.0 atm C. 100°C and 2.0 atm D. 0°C and 2.0 atm
33	Number of molecules in one dm^3 of water is close to :	A. 6.02/22.4<o:p></o:p> B. 12.04/22.4 *10^{23<o:p></o:p>} C. 18/22.4*10²³ D. 55.6*6.02*10²³* 10²³
34	Equal masses of methane and oxygen are mixed in an empty container at 25°CThe fraction of total pressure exerted by oxygen is :	A. 1/2 B. 8/9 C. 1/9 D. 16/17
		A. STP B. 127<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-

35	The molar value of CO_2 is maximum at :	image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;"><span style="font-size:11.0pt;line-height:107%; font-family:"Calibri",sans-serif;mso-ascii-theme-font:minor-latin;mso-fareast-font-family: Calibri;mso-fareast-theme-font:minor-latin;mso-hansi-theme-font:minor-latin; mso-bidi-font-family:"Times New Roman";mso-bidi-theme-font:minor-bidi; mso-ansi-language:EN-US;mso-fareast-language:EN-US;mso-bidi-language:AR-SA">°C and 1 atm C. <span style="line-height: 14.98px; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">0°C and 2 atm D. 273°C and 2 atm
36	If absolute temperature of a gas is doubled and the pressure is reduced to one half, the volume of the gas will be	A. Remain unchanged B. Doubled C. Reduced D. Increased four times
37	At constant temperature when pressure of a gas is plotted against volume, the curve is	A. Slanting straight line B. Parabolic C. Staight line, parallel to pressure axis D. OF neither type
38	For a gas obeying Boyle's law if pressure is doubled, the volume becomes :	A. Remain constant B. Double C. One half D. None of above
39	Gases exert pressure on walls of container because the gas molecules	A. Obey gas laws B. Have definite volume C. Collide with the walls of container D. Collide with each other
40	Boyle's law doesn't fail even :	A. Temperature is extremely high B. Pressure is extremely high C. Mixture of gas is taken D. All of above
41	All gases can be compressed by	A. Keeping constant pressure B. Decreasing pressure C. Increasing pressure D. None of above
42	Which of the following is the simplest form of matter?	A. Gaseous state B. Liquid state C. Solid state D. All of above
43	In Boyle's law which of the following pair is variable	A. Temperature and quantity of a gas B. Pressure and Volume C. Volume and quantity of a gas D. Pressure and quantity of a gas
44	Liquids are less common than :	A. Solids B. Plasmas C. Gases D. All of above
45	Boyle's law is represented as :	A. P∞ 1/T<o:p></o:p> B. V and 1/P C. P∞P D. P∞1/P
46	The intramolecular forces in gases are	A. Weak B. Normal C. Very weak D. Strong

47	A graph b/w P and 1/V at constant temperature and number of moles is parallel to :	A. None of above B. X-axis C. Z-axis D. Y-axis
48	How should condition be changed to prevent the volume of a given gas from expanding whine its mass is increased ?	A. Temperature is lowered and pressure is increased B. Temperature is increasedand pressure is lowered C. Temperature and pressure both are lowered D. Temperature and pressure both are increased
49	In gases and liquids, temperature is the measure of	A. Average translational kinetic energies of molecules B. Average vibrational kinetic energies of molecules C. Average rotational kinetic energies of molecules D. None of above
50	For a gas obeying Boyle's law if pressure is doubled, the volume becomes	A. Remains constant B. Double C. One half D. None of above
51	Gases exert pressure on walls of container because the gas molecules :	A. Obey gas laws. B. Have definite volume. C. Collide with the walls of container. D. Collide with each other.
52	According to Boyle's law, which parameters give a straight line parallel to axis-s, when we plot a graph between:	A. V and T B. P and V C. P and 1/V D. P and PV
53	Gases shows uniform behavior toward their :	A. Internal conditions B. External conditions C. Internal and external conditions D. None of above
54	Liquids are less common than	A. Solids B. Plasmas C. Gases D. All of above
55	The product of pressure and volume remains constant when temperature and quantity of gas is	A. zero B. variable C. kept constant D. None of these
56	In Solids, the temperature is the measure of	A. Rotational kinetic energies B. Translational kinetic energies C. Vibrational kinetic energies D. None of above
57	If absolute temperature of a gas is doubled and the pressure is reduced to one half, the volume of gas will :	A. remain unchanged B. increase four times C. reduce to 1/4 D. be doubled
58	A graph between P and PV at constant temperature and number of mole is parallel to	A. y axis B. z axis C. x axis D. pressure axis
59	A graph between P and 1/V at constant temperature and number moles of a gas meets the	A. y-axis B. x-axis C. origin D. none of above
60	The relationships between volume of a given amount of gas and the prevailing conditions of temperature and pressure are	A. Charle's Law B. Graham's Law C. Boyle's Law D. Gas Laws
61	The movement of gas molecules from a region of high pressure to vacuum is called	A. Evaportation B. Effusion C. Conduction D. Diffusion
62	Gases of air, always remain in random motion and do not settle due to	A. Difference in molecular masses of air gases B. Difference in partial pressure of gas molecules C. Unequal number of different gas molecules D. Elastic collision of gas molecules
63	Boyle's law does not fall even	A. Temperature is extremely high B. Pressure is extremely high C. Mixture of gases is taken

		C. Mixture of gases is taken D. all of above
64	Absolute temperature of a gas is proportional to	A. Rotational kinetic energy B. Translational kinetic energy C. Vibrational kinetic energy D. Potential energy
65	Keeping the temperature constant, if the gas is expanded	A. kinetic energy of molecules will increase B. Number of gas molecules increases C. Temperature will increases D. Pressure will decrease
66	The graph between pressure and volume at constant temperature for a gas is	A. Isobaric B. Isothermal C. Isotherm D. None of above