ECAT Chemistry Chapter 3 Gases Online Test

Sr	Questions	Answers Choice
1	Which of the following is the simplest form of matter?	A. Gaseous state B. Liquid State C. Solid State D. All of above
2	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
3	The movement of gas molecules from a region of high pressure to vacuum is called	A. Evaportation B. Effusion C. Conduction D. Diffusion
4	All gases can be compressed by	A. Keeping constant pressure B. Decreasing pressure C. Increasing pressure D. None of above
5	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
6	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
7	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
8	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
9	In Solids, the temperature is the measure of	A. Rotational kinetic energies B. Translational kinetic energies C. Vibrational kinetic energies D. None of above
10	Cooling happens under the Joule Thomson Effect due to sudden	A. Contraction B. Absorption C. Expansion D. All of above
11	Gases show uniform behaviour towards their	A. Internal conditions B. External conditions C. Internal and external conditions D. None of above
12	Liquids are less common than	A. Solids B. Plasmas C. Gases D. All of above
13	The intramolecular forces in gases are	A. Weak B. Normal C. Very weak D. Strong
14	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

15	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
16	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
17	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
18	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
19	Boyle's law does not fall even	A. Temperature is extremely high B. Pressure is extremely high C. Mixture of gases is taken D. all of above
20	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
21	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
22	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
23	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
24	The graph between pressure and volume at constant temperature for a gas is	A. Isobaric B. Isothermal C. Isotherm D. None of above
25	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
26	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
27	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
28	Absolute temperature of a gas is proportional to	A. Rotational kinetic energy B. Translational kinetic energy C. Vibrational kinetic energy D. Potential energy
29	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
30	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
31	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
32	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

	become twice of what it is at 0°C ?	C. 546K D. 273K
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	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>
35	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
36	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
37	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
38	The molar value of CO_2 is maximum at :	A. STP B. 127<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-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 1 atm
39	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

40	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
41	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.
42	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
43	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
44	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
45	Which of the following is the simplest form of matter?	A. Gaseous state B. Liquid state C. Solid state D. All of above
46	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.
47	The movement of molecules from a region of high pressure to vacuum is called :	A. Evaporation B. Effusion C. Conduction D. Difusion
48	All gases can be compressed by :	A. Keeping constant pressure B. Decreasing pressure C. Increasing pressure D. None of the above
49	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.
50	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.

51	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
52	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
53	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
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55	Gases shows uniform behavior toward their :	A. Internal conditions B. External conditions C. Internal and external conditions D. None of above
56	Liquids are less common than :	A. Solids B. Plasmas C. Gases D. All of above
57	The intramolecular force in gases are :	A. Weak B. Normal C. Very weak D. Strong
58	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
59	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.
60	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.
61	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
62	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
		A. V and T

63	According to Boyle's law, which parameters give a straight line parallel to axis-s, when we plot a graph between:	B. P and V C. P and 1/V D. P and PV
64	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
65	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
66	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