MDCAT Chemistry Chapter 3 Gases Online Test

Sr	Questions	Answers Choice
1	The motion imparted to the gas molecules by gravity is	A. very small B. very large C. negligible D. appreciable
2	.The number of moles in 2.24 dm3 of H2 gas at STP is:	A. 1 B. 0.1 C. 10 D. 0.01
3	At constant volume, for a fixed number of moles of a gas the pressure of the gas increases with size of temperature due to	A. increase in average molecular speed B. increase in number of moles C. increase in molecular attraction D. decrease in the distance between the molecules
4	At higher temperature isotherm of Boyle's law moves away from both axis, is due to increase in:	A. pressure B. No. of moles C. Volume D. All
5	At higher temperature isotherm of Boyle's law moves away from both axis, is due to increase in	A. pressure B. No. of moles C. Volume D. all of these
6	Gas is enclosed in a container of 20cm3 with the moving piston. According to kinetic theory of gases, what is the effect on freely moving molecules of the gas if temperature is increased from 20°C to 100C.	A. Colliding capability of molecule will become lower B. Pressure will become one half C. Temperature has no effect on freely moving molecules D. Volume will be increased
7	Under which condition CO has the maximum molar volume.	A. high T and P B. Low T and High p C. high T and low pressure D. Low T and low P
8	If temperature is 73K and volume is 146 cm3 then calculate the value of K=V/T	A. 5 B. 4 C. 3 D. 2
9	Which of the following is the correct equation to calculate relative molecular mass of a gas	A. M=mPRTV B. M=mPR/VT C. M=PV/mRT D. M=mRT/PV
10	The actual volume of gas molecules is considered negligible at following pressures	A. 2atm B. 4atm C. 6 atm D. 8 atm
11	The number of molecules in 22.4 dm3 of gas at 0°C and 1 atm are	A. 6.02×10(23) B. 6.02× 10(25) C. 6.02×10(22) D. 6.02×10(21)
12	Acording to the kinetic theory of gases	A. The pressure exerted by a gas is proportional to mean square velocity of the molecules B. The pressure exerted by the gas is proportional to the root mean square velocity of the molecules C. The root mean square velocity is inversely proportional to the temperature D. The mean translational KE of the molecule is directly proportional to the absolute temperature
13	The root mean square velocity of a gas is doubled when the temperature is	A. reduced to half. B. reduced to one-fourth C. increased four times

		D. Increased two times
14	At higher temperature what is true for gases	A. pressure is decreased B. volume is decreased C. number of moles are decreased D. KE is increased
15	The density of neon will be highest at	A. STP B. 0°C, 2 atm C. 273°C, 1 atm D. 273°C, 2 atm
16	The volume of a real gas	A. is constant B. increases with T decrease C. becomes zero at absolute zero D. never becomes zero
17	The volume of gas depends upon the------- moleules	A. Size of B. Space between C. Molecular weight D. both a and b
18	Under which condition CO has the maximum molar volume	A. high T and P B. Low T and High p C. high T and low P D. Low T and low P
19	The temperature of a gas is directly proportional to its	A. average translational kinetic energy B. enthalpy C. internal energy D. hydration energy
20	Which one of the following statements is wrong for gases?	A. gases do not have a definite shape and volume B. volume of the gas is equal to volume of container confining the gas C. confirmed gas exerts uniform pressure on the walls of its container in which it is enclosed D. mass of gas cannot be determined by weighing a container in which it is enclosed
21	The molecular speed Crms of gas is	A. Independent of temperature B. Proportional to the absolute temperature C. Proportional to the square root of absolute temperature D. Proportional to the square of absolute temperature
22	Which type of motion is exhibited by gases?	A. Vibrational B. Transitional C. Rotational D. All of them
23	If volume of an ideal gas at 0°C 536cm3, what is volume at 1°C	A. 373 cm3 B. 646 cm3 C. Becomes 0cm3 D. 746 cm3
24	According to kinetic theory of gases kinetic energy depends on	A. Temperature B. Collision C. Pressure D. Atomic number
25	Helium atom is two times heavier than a hydrogen molecule. At 298 K, the average kinetic energy of a helium atom is	A. same as that of a hydrogen molecule B. half that of a hydrogen molecule C. two times that of a hydrogen molecule D. four times that of hydrogen molecule
26	For an ideal gas, number of mole in terms of its pressure P, temperature T and gas constant is	A. PT/R B. PRT C. PV/RT D. RT/P
27	What are the conditions under which the relation between volume (V) and number of moles (n) of gas is plotted? (Pressure; T-temperature)	A. constant P and T B. constant P and V C. constant T and V D. constant n and v
28	If a gas expands at constant temperature	A. The pressure decreases B. The Kinetic energy of the molecules remains the same C. The kinetic energy of the

28	If a gas expands at constant temperature	C. The kinetic energy of the molecules decreases D. The number of molecules of the gas increase
29	An ideal gas, obeying Kinetic theory of gases cannot be liquified, because	A. its critical temperature is above 0°C B. its molecules are relatively small in size C. It solidifies before becoming a liquid D. Forces acting between its molecules are negligible
30	According to the general gas equation, density of an ideal gas depends upon	A. Pressure B. Temperature C. Molar mass of the gas D. All of the above
31	If volume of an ideal gas at 0C° 536cm3, what is volume at 1°C	A. 373 cm3 B. 646 cm3 C. Becomes 0cm3 D. 746 cm3
32	The pressure exerted by gas molecules is due to their	A. collisions B. densities C. masses D. kinetic energy
33	Which is not true in case of an ideal gas?	A. It cannot be converted into a liquid B. There is no interaction between the molecules C. All molecules of the gas move with same speed D. At a given temperature P'V is proportional to the amount of the gas
34	One dm3 of H2 and O2: has different masses but no. of particles are	A. same B. H2 has greater C. different D. O2 has greater
35	Theoretically, the temperature at which volume of gas become equal to zero is called	A. Boiling point of water B. Zero absolute C. Zero Kelvin D. both B and C
36	Charles's law is only obeyed at which temperature scale	A. Celsius B. Kelvin C. Fahrenheit D. both A&B
37	The volume of given mass of gas is directly proportional to absolute temperature when pressure is kept constant this is called	A. Boyle's law B. Charles's law C. Graham's law D. Dalton's law
38	The relationship between density and molar mass of a gas is	A. Directly proportional B. ^{Inversly proportional} C. Straight line D. Stoichiometric
39	The pressure of gas at constant temperature in a container of 2dm3 is 10 atm what will be its final pressure if it is connected with 10 dm3 container	A. 2 atm B. 1.6 atm C. 5 atm D. I atm
40	Density of a gas increases by	A. increasing value of R B. decreasing value of R C. increasing T D. decreasing T
41	At absolute zero the molecules of hydrogen gas will have	A. Only translatioral motion B. Only vibrational motion C. Only rotational motion D. All the motion are ceased
42	An ideal gas expands according to PV=constant. On expansion, the temperature of gas	A. will rise B. will drop C. cannot be determined because the exteral pressure is not known D. will remain same
43	The mono atomic gases are	A. Halogens B. Noble gases C. 6h group elements D. Nitrogen and oxygen

44	Which of the statement is applicable for both ideal and real gases molecules?	A. Have no forces of attraction B. Collisions between the molecules is elastic C. Molecules are in random movement D. The actual volume of gas is negligible as compared to the volume of gas
45	If increase in temperature and volume of an ideal gas is two times, then the initial pressure P changes to	A. 4P B. P C. 2P D. 3P