MDCAT Chemistry Online Test

Sr	Questions	Answers Choice
1	The vapour pressure of a liquid depends upon	A. amount of the liquid B. surface area C. temperature D. size of container
2	The B.P of glycerine at 760 torr pressure is	A. 200°C B. 290C° C. 250C° D. 262C°
3	Ice occupies more space than liquid water	A. 9% B. 10% C. 11% D. 12%
4	At freezing point of water, the density decreases due to	A. change of bond angles B. change of bond lengths C. cubic structure of ice D. empty spaces present in the structure of ice
5	The long chains of amino acids are coiled around one another into a spiral by	A. ionic bond B. Van der Waal's forces C. hydrogen bonding D. overlapping of orbitals
6	H2O and HF are the hydrides of the second period. Fluorine is more electronegative than oxygen. Anyhow, the boiling point of water is greater than that of HF. This is due to:	A. water is more polar than HF B. water has a bent structure C. HF has a zig zag structure after making hydrogen bonding D. the number of hydrogen bonds produced by water are greater than that of HF
7	Hydrogen bonding is extensively present in proteins which form the spiral. The hydrogen bond being produced is between	A. nitrogen and hydrogen atom B. oxygen and hydrogen atom C. carbon and hydrogen atom D. oxygen and carbon atom
8	Halogens form halogen acids. HF is the weakest among all of them This is due to the reason that	A. fluorine is a very small-sized atom B. fluorine is highly electronegative atom C. there is strong hydrogen bonding in HF D. the polarity of HF bond is less
9	The boiling point of H2O is 100°C while that of C2H5-OH is 78.5C°. The reason is that:	A. H2O molecules are small-sized B. the bond angles at oxygen atom are different C. C2H5-group is electron donating D. the number of H-bonds are greater in H20, than C2H5-OH
10	Oxygen and sulphur are present in VI-A group of the periodic table The hydride of oxygen i.e., H2O is liquid at room temperature but the hydride of sulphur (H2S) is a gas. This is due to	A. greater bond angle of water than Hs B. greater bond lengths in HS than H2O C. hydrogen bonding in water D. acidic character of HS
11	Ice floats on water because	A. the hydrogen bonding in ice is stronger than that of in water B. empty spaces are left in ice C. ice has two-dimensional structure D. the bond length of the oxygen and hydrogen bond is different in water and ice
12	H-bonding is maximum in:	A. ethanol B. benzene C. diethyl ether D. water
13	Hydrogen bonding is not present in which of following compound?	A. Ammonia B. Ethanol

		C. Ether D. Water
14	The polarizabilities of elements mostly increase down the group due to the reason that	A. the atomic numbers increase B. number of protons increase C. number of shells increase along with increase of shielding effect D. the behaviour of the elements remain the same
15	Dipole-induced dipole forces are also called	A. dipole-dipole forces B. ion-dipole forces C. Debye forces D. London-dispersion forces
16	The boiling point of higher alkanes are greater than those of lower alkanes due to reason that	A. higher alkanes have greater number of atoms B. the polarizabilities of higher alkanes are greater C. higher alkanes have greater hydrogen bonding D. higher alkanes have zig-zag structures
17	Saturated hydrocarbons having carbon atoms more than 20 in a molecule are solids due to	A. higher densities B. higher molar masses C. the chain, are more zig-zag D. all are correct
18	The boiling points of the halogens	A. increases down the group B. decreases down the group C. remains constant D. can not be predicted
19	Polarizability is responsible for intermolecular forces and it	A. increases down the group B. decreases down the group C. almost remains the same D. increased along a period
20	Dipole-dipole interaction are present in the	A. atoms of the He gas B. molecules of CCl4 C. molecules of solid iodine D. molecules of :NH3
21	Strong dipole-dipole forces among the liquid molecules are responsible for	A. very high heat of vaporization B. very low heat of vaporization C. cannot be predicted D. negligible forces are these
22	The forces which are present between the ions and the water molecules are known as	A. dipole-induced dipole forces B. dipole-dipole forces C. ion-dipole forces D. London dispersion forces
23	Liquid hydrocarbon is	A. methane B. propane C. ethane D. hexane
24	The nature of crystals formed due to London forces of interaction are	A. molecular B. metallic C. ionic D. covalent
25	The nature of the attractive force in acetone and chloroform are	A. dipole-induced dipole forces B. dipole-dipole forces C. ion-dipole forces D. instantaneous forces
26	The weakest intermolecular forces present in a liquid may be	A. Dipole-induced dipole forces B. dipole-dipole forces C. instantaneous forces D. electrostatic forces between ions in a ionic solid
27	Density of a gas increases by	A. increasing value of R B. decreasing value of R C. increasing T D. decreasing T
28	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
29	The volume of a real gas	A. is constant B. increases with T decrease C. becomes zero at absolute zero D. never becomes zero

		D. never becomes zero
30	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
31	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
32	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
33	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)
34	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
35	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
36	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
37	The relationship between density and molar mass of a gas is	A. Directly proportional B. ^{Inversly proportional} C. Straight line D. Stoichiometric
38	Charles's law is only obeyed at which temperature scale	A. Celsius B. Kelvin C. Fahrenheit D. both A&B
39	The actual volume of gas molecules is considered negligible at following pressures	A. 2atm B. 4atm C. 6 atm D. 8 atm
40	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
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	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
43	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
44	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
45	The mono atomic gases are	A. Halogens B. Noble gases C. 6h group elements D. Nitrogen and oxygen
		A. Size of

46	The volume of gas depends upon the------- moleules	B. Space between C. Molecular weight D. both a and b
47	The pressure exerted by gas molecules is due to their	A. collisions B. densities C. masses D. kinetic energy
48	The temperature of a gas is directly proportional to its	A. average translational kinetic energy B. enthalpy C. internal energy D. hydration energy
49	The motion imparted to the gas molecules by gravity is	A. very small B. very large C. negligible D. appreciable
50	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
51	.The number of moles in 2.24 dm3 of H2 gas at STP is:	A. 1 B. 0.1 C. 10 D. 0.01
52	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
53	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
54	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
55	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. inereased two times
56	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
57	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
58	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
59	According to kinetic theory of gases kinetic energy depends on	A. Temperature B. Collision C. Pressure D. Atomic number
		A. The pressure exerted by a gas is proportional to mean square velocity of the molecules B. The pressure exerted by the gas is

60	Acording to the kinetic theory of gases	B. The pressure exhibited 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