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Question Type J	Question 11	A J1	в Џ	c II	D II	Answer ↓↑	Remark 11
FBQ	The temperature above which a gas will not liquefy no matter what pressure is applied is known as	Critical temperature					eExam
FBQ	The plot of solubility against temperature is called the	Solubility curve					eExam
FBQ	is the fundamental unit in a crystal.	Unit cell					eExam
FBQ	In Charles' law, the volume of a gas when the temperature decreases	decreases					eExam
FBQ	The escape of molecules from the liquid surface to form vapor is called	Evaporation or Vaporization					eExam
FBQ	In fractional distillation, the process of successive vaporization and condensation is carried out in a	Fractionating column					eExam
FBQ	A liquid that has high viscosity flows slowly, true or false?	1					eExam

FBQ	In the kinetic molecular theory of gas behavior, collisions between them are (elastic/inelastic)	elastic	еЕхат
FBQ	According to the kinetic theory, the kinetic energy of a gas is a measure of its	temperature	eExam
FBQ	is used for measuring the viscosity of a substance.	Ostwald viscometer	еЕхат
FBQ	A temperature of 125 °C is the same as K.	398	еЕхат
FBQ	The SI unit for energy is	Joule	eExam
FBQ	A gas sample contains 4.0 g of \$CH_{4}\$ and 2.0 g of He; the volume of the sample at STP is \$dm^{3}\$. (C = 12, H = 1, He = 4, G.M.V = 22.4 \$dm^{3}\$)	5.6	eExam
FBQ	Air as a mixture of gases .Thus it is a phase system	Single	eExam
FBQ	The entropy of vaporization is almost the same value for various kinds of liquids at their boiling point. This statement is known as	Trouton's rule	eExam
FBQ	The rates at which gases effuse are inversely proportional to the square root of their densities or molar masses under similar conditions of temperature and pressure. This is	Boyle's	eExam
FBQ	is used to measure the strength of an acid or base.	pH meter	еЕхат

FBQ	Gases which can be easily liquefied are less soluble in common solvents. True or false?				eExam
FBQ	According to law, when the pressure of a gas increases at constant temperature, its volume decreases.	Boyle's			еЕхат
FBQ	At STP, the number of moles of helium that would occupy 1 \$dm^{3}\$ is moles.	0.0446			eExam
FBQ	The type of bond that exists in water and hydrogen fluoride is	Hydrogen bond			еЕхат
FBQ	The SI unit of temperature is	Kelvin			eExam
FBQ	The gas molecules confined to a container are in a state of constant rapid random motion. True or false?	1			eExam
FBQ	is a regular periodic arrangement of points in space.	Lattice			eExam
FBQ	A thermometer is usually filled with	mercury			eExam
FBQ	Number of moles present per dm3 of a substance is called	Molarity	molar concentration		eExam

FBQ	The solubility of a gas in a liquid is measured in terms of	Absorption coefficient or Bunsen coefficient	еЕхат
FBQ	The amount of heat required at constant pressure to convert one mole of a liquid into its vapor at its boiling point is called the	Molar enthalpy of vaporization.	еЕхат
FBQ	The opposite of vaporization is called	condensation	еЕхат
FBQ	When a solute present in a solution is in very minute amounts, the concentration is usually expressed in	Parts per million (ppm)	еЕхат
FBQ	is defined as the number of solute present in 1 L of the solution.	Molarity	eExam
FBQ	The absolute temperature of a gas is adjacent to the mean kinetic energy of the molecules present in it. True or false?		еЕхат
FBQ	Electric resistance is measured in	Ohm	еЕхат
FBQ	An ideal solution obeys law at all temperatures.	Raoult's	eExam
FBQ	A solid becomes liquid by	Melting	eExam
FBQ	The formation of a solid from a solution is called	Precipitation	eExam
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FBQ	Crystal planes are represented by certain numbers known as	Miller indices	eExam
FBQ	is formed when atoms are attached regularly to each lattice point.	Crystal	еЕхат
FBQ	The valence bond approach corresponds to the	Bond model	еЕхат
FBQ	Real gases obey ideal gas laws only at pressures and high temperatures.	Low	еЕхат
FBQ	The temperature at which the vapor pressure of a liquid equals the external pressure is called its	Boiling point	еЕхат
FBQ	The process of separating a pure solid from a solution is known as	Crystallization	еЕхат
FBQ	The pressure that is required to liquefy a gas at its critical temperature is called its	Critical pressure	eExam
FBQ	The stable form of sulphur at ordinary temperature and under one atmospheric pressure is sulphur	Rhombic	eExam
FBQ	is the ratio of molar enthalpy of a liquid to its boiling point.	Trouton's rule	eExam
FBQ	is defined as the number of moles of solute present in one kilogram of solvent.	Molality	еЕхат

FBQ	is a physically distinct and homogenous part of the system that is mechanically separable from other parts of the system.	A phase	еЕхат
FBQ	The translational energy of an ideal gas is independent of the type and pressure of the gas. True or false?	1	еЕхат
FBQ	Which is more effective, Claude's method or Linde's method of liquefaction of gases?	Claude's method	eExam
FBQ	In the band theory of metals, a crystalline metallic solid is considered as a	Single giant molecule	eExam
FBQ	The mass of the solute that can be dissolved in 0.100 kg of a solvent to form a saturated solution at a given temperature is called its	solubility	еЕхат
FBQ	The rates at which gases effuse are inversely proportional to the square root of their densities or molar masses under similar conditions of temperature and pressure. This is a statement of	Graham's law of effusion	еЕхат
FBQ	The SI unit for frequency is	Hertz	еЕхат
FBQ	Velocity is a vector quantity. True or false?	1	еЕхат

FBQ	The separation methods which is based on the difference in boiling points of liquids is	distillation	fractional distillation				еЕхат
FBQ	At relatively low pressure, there are no intermolecular forces between the molecules. True or false?	1					eExam
FBQ	Real gases behave ideally at very high pressures. True or false?						еЕхат
FBQ	Ideal solutions can be separated into two fractions by	Fractional distillation					eExam
FBQ	The unit of temperature is used in gas law calculations is	Kelvin	К				eExam
FBQ	The volume of a gas with a pressure of 1.2 atm increases from 1.0 L to 4.0 L; the final pressure of the gas, assuming constant temperature, is	0.3 atm	0.3 atmospheres				eExam
MCQ	A liquid will "wet" a surface if:	the liquid has a lesser density than the surface	the forces between the liquid molecules are weak	the liquid has a low vapor pressure	the forces between the molecules and the surface are greater than the forces between the molecules of the liquid	D	eExam
MCQ	Which of the following statements is false?	The properties of N2(g) will deviate more from ideality at -100oC than at 100oC.	Van der Waal's equation corrects for the non- ideality of real gases.	Molecules of CH4(g) at high pressures and low temperatures have no attractive forces between each other.	Molecules of an ideal gas are assumed to have no significant volume.	С	eExam

MCQ	The Henry's law constant for helium gas in water at 30 °C is 0.00037 M/atm. When the partial pressure of helium above a sample of water is 0.650 atm, the concentration of helium in the water is M.	0.000569	0.00176	1.3	0.000241	D	eExam
MCQ	A solution is prepared by dissolving calcium chloride in water and diluting to 500.0 mL. If this solution contains 44 ppm chloride ions, the concentration of calcium ions is ppm.	44	88	22	11	С	eExam
MCQ	Which of the followings will not diffract X-rays?	Solid	Liquid	Gas	Crystal	С	eExam
MCQ	According to the kinetic theory of gases, a gas can be compressed much more than a liquid or solid because	a gas is composed of very small particles.	the particles of a gas are very far apart.	gas particles move rapidly.	gas particles do not attract or repel one another.	В	eExam
MCQ	A mixture of iron filings and copper filings could best be separated by	adding water, then filtering	distillation	sieving	magnetic separation	D	eExam
MCQ	Which of these alkanes is expected to have the highest viscosity?	Heptane	Decane	Octane	Nonane	В	eExam
MCQ	Which one of the following statements most accurately relates the properties of a liquid at room temperature with its intermolecular forces?	A liquid with strong intermolecular forces will probably have a high surface tension and a high boiling point.	A liquid with strong intermolecular forces will probably have a low surface tension and a high boiling point.	A liquid with strong intermolecular forces will probably have a low surface tension and a high boiling point.	A liquid with strong intermolecular forces will probably have high boiling point.	A	eExam
MCQ	Which measurement describes the pressure of a gas?	315 K	1.2 g/L	725 mm Hg	2.5 L	С	eExam
MCQ	What is the average speed (actually the root-mean-square speed) of a neon atom at 27 C?	3.34 m/s	19.3 m/s	183 m/s	610 m/s	D	eExam
MCQ	An atom on the face-centre of a unit cell is shared by unit cells.	Three	One	Two	Ten	С	eExam
MCQ	Which of the followings is not a characteristic of an ideal solution?	There is no volume change on mixing	It must be colourless	It must obey Raoult's law	There is no enthalpy change on mixing	В	eExam

MCQ	Distillation can be used to separate	a soluble solid from a solution	a liquid from a solution	a solid from a solid	an insoluble solid from a solution	В	eExam
MCQ	An ideal gas differs from a real gas in that the molecules of an ideal gas	have an average molecular mass	have no kinetic energy	have a molecular weight of zero	have no attraction for one another	D	eExam
MCQ	Ethanol dissolved in water would be an example of	a solution between two miscible liquids	a solution between a solid and liquid	a suspension between two liquids	ethanol and water do not form a solution	A	eExam
MCQ	A sample of oxygen occupies 47.2 liters under a pressure of 1240 torr at 25 \$^{o}C\$. What volume would it occupy at 25\$^{o}C\$ if the pressure were decreased to 730 torr?	27.8 L	29.3 L	32.3 L	47.8 L	D	еЕхат
MCQ	The concentration of KBr in a solution prepared by dissolving 2.21 g of KBr in 897 g of water is molal.	2.46	0.0167	0.0207	0.0186	С	еЕхат
MCQ	The vapor pressure of pure ethanol at 60 °C is 0.459 atm. Raoult's Law predicts that a solution prepared by dissolving 10.0 mmol naphthalene (nonvolatile) in 90.0 mmol ethanol will have a vapoUr pressure of atm.	0.0918	0.413	0.498	0.79	В	eExam
MCQ	In fractional distillation, a mixture of liquids is separated based on their	boiling points	solubility	density	chemical composition	A	eExam
MCQ	Which of the following is not a colligative property?	Vapour pressure lowering	Boiling point elevation	Freezing point depression	Increase in latent heat	D	eExam
MCQ	Which statement is true?	As temperature goes up, the solubility of solids goes up.	As temperature goes up, the solubility of gases goes up	As temperature goes down, the solubility of solids goes up	More than one of these is true	A	eExam
MCQ	Which of these terms is not used to describe a solid which remains behind during a separation process?	sediment	filtrate	residue	solution	С	eExam

MCQ	Which of these is not true of a lattice?	It is an arrangement of geometrical points in a definite pattern in space	It resembles a scaffold erected for the construction of a building	A regular periodic arrangement of points in space	Lattice is present only in ionic solids	D	eExam
MCQ	Which of these is not true about semiconductors?	They are insulators under normal conditions	They conduct under normal conditions	They conduct when heated	Electrical conductivity increases with temperature	В	eExam
MCQ	Which of the following descriptions is correct?	a suspension contains particles which will not settle out if the suspension is left standing	a mixture consists of two or more pure substances which can only be separated by chemical methods	a solution consists of a solvent dissolved in a solute	a colloid is a 'cloudy' mixture containing particles which will not easily settle out when the colloid is left standing	A	eExam
MCQ	An ideal gas is contained in a volume V at temperature T. If the volume is doubled at constant pressure, the temperature will be	Unchanged	Halved	Doubled	none of these	С	eExam
MCQ	Which one of the following statements is not consistent with the kinetic-molecular theory of gases?	Individual gas molecules are relatively far apart.	The actual volume of the gas molecules themselves is very small compared to the volume occupied by the gas at ordinary temperatures and pressures.	The average kinetic energies of different gases are different at the same temperature.	There is no net gain or loss of the total kinetic (translational) energy in collisions between gas molecules.	С	eExam
MCQ	Which statement is false?	The density of a gas is constant as long as its temperature remains constant.	Gases can be expanded without limit.	Gases diffuse into each other and mix almost immediately when put into the same container.	The molecular weight of a gaseous compound is a non-variable quantity.	A	eExam
MCQ	A sample of an ideal gas is held at constant temperature. If the pressure is decreased to ½ P, the volume will be	Increased to 2V	Decreased to ½ V	Unchanged	reduced in multiples of two	А	еЕхат

MCQ	A sample of nitrogen occupies 5.50 liters under a pressure of 900 torr at 25\$^{o}C\$. At what temperature will it occupy 10.0 liters at the same pressure?	32 \$^{o}C\$	\$-109 ^{o}C\$	154 \$^{o}C\$	269 \$^{o}C\$	D	eExam
MCQ	A sample of a salt and water solution is homogeneous throughout. Is this sample a mixture or a pure substance?	a pure substance, since it is the same throughout	a mixture, because it can have a variable composition	a pure substance, because it has a definite composition	a mixture, because it has a fixed, definite composition	В	eExam
MCQ	Which of the following is a pure substance made up of one type of atoms?	A mixture	An element	A compound	A solution	В	eExam
MCQ	When a liquid is in equilibrium with its vapor in a closed container:	the rate at which molecules from the liquid phase enter the gas phase exactly equals the rate at which molecules from the gas phase pass into the liquid phase	a change in temperature will not change the pressure in the container	the amount of gas in the container must exactly equal the amount of liquid	molecules cannot go from the liquid phase to the gas phase because the amount of liquid in the container is constant	A	eExam
MCQ	In order to dissolve the greatest amount of sugar in a cup of water, you should	use sugar crushed into small pieces, and heat the water	use sugar crushed into small pieces, and cool the water	use sugar in large pieces, and heat the water	use sugar in large pieces, and cool the water	Α	eExam
MCQ	Which of the following is not true of a liquid's viscosity?	It is independent on intermolecular forces	It is a measure of the resistance to flow	It increases with temperature	A highly viscous liquid flows slowly	С	eExam
MCQ	The kinetic energy of gas molecules is directly proportional to temperature in	Celcius	Kelvin	degree kelvin	none of these	В	eExam
MCQ	A separation technique which involves charging particles and then attracting them to oppositely charged metal plates is called separation.	absorption	electrostatic	magnetic	gravity	В	eExam
MCQ	Which of these is a derived physical quantity?	Area	Time	Luminous	Mass	Α	eExam

MCQ	Which of the followings does not influence the magnitude of surface tension?	Hydrogen bonds	Metallic bonding	lonic bonding	Dispersion forces	С	eExam
MCQ	Which of the following statements is true about compounds and mixtures?	Both mixtures and compounds always contain a fixed proportion of elements by mass.	Unlike compounds, very little or no exchange of energy occurs during the formation of mixtures.	A mixture cannot be easily separated into its constituents while constituents of a compound can be easily separated.	Compounds and mixtures can be separated into its constituents by chemical methods.	В	eExam
MCQ	What is a compound?	A substance which contains two or more elements physically combined together in fixed ratio.	A substance which contains only metallic and non-metallic elements chemically joined together.	A substance which cannot be separated into its simpler substances by heating alone.	A substance which is made up of two or more elements chemically joined together.	D	eExam
MCQ	Which of these is an amorphous solid?	Glass	Diamond	Graphite	Sodium chloride	А	eExam
MCQ	Which of these mixtures is not a nearly ideal liquid mixture?	n-hexane and n-heptane	benzene and toluene	water and ethanol	carbon tetrachloride and silicon tetrachloride	С	eExam
MCQ	Which of these is not crystalline	Diamond	Polythene	Potassium iodide	Graphite	В	eExam
MCQ	A liquid that has high viscosity flows	slowly	rapidly	freely	briskly	A	eExam
MCQ	A container with volume 71.9 ml contains water vapor at a pressure of 10.4 atm and a temperature of 465oC. How many grams of the gas are in the container?	0.421 g	0.183 g	0.129 g	0.222 g	D	eExam
MCQ	Which one of the following can be separated by adding water, stirring and filtering?	Copper and tin	Salt and sugar	Sulfur and sugar	Salt and copper sulphate	С	eExam
MCQ	A mixture of graphite and diamond constitutes phases.	one	two	three	four	В	eExam

MCQ	The molarity of urea in a solution prepared by dissolving 16 g of urea (MW = 60.0 g/mol) in 39 g of H2O is M. The density of the solution is 1.3 g/mL.	0.11	3.7	6.8	6.3	D	eExam
MCQ	The mole fraction of He in a gaseous solution prepared from 4.0 g of He, 6.5 g of Ar, and 10.0 g of Ne is	0.6	1.5	0.2	0.11	A	eExam
MCQ	Which of these describes what happens when water freezes?	a phase change occurs from a liquid phase to a solid phase	an exothermic process occurs where energy is lost from ice to the surroundings	the liquid water changes from a random structure to a crystalline solid	all of the above	D	eExam
MCQ	In filtration, the term 'filtrate' refers to	the solid that remains on the filter paper	the liquid that drains through the filter paper.	the type of filter paper used.	the mixture before separation	В	еЕхат
MCQ	A gas occupies a volume of 2.4 L at 14.1 kPa. What volume will the gas occupy at 84.6 kPa?	497 L	2.5 L	14 L	0.40 L	D	eExam
MCQ	The gaseous mixture is a phase system.	one	two	three	four	A	eExam
MCQ	Standard temperature and pressure (STP) refers to which conditions?	0 K and 1 KPa	(b) 0 K and 1 mmHg	273 k and 1 atm	0 K and 1 atm	С	eExam
MCQ	Fractional distillation cannot be used to	separate the components of liquid air	refine crude oil	test the purity of a substance	separate methanol and water	С	eExam
MCQ	The density of a crystal depends on all the following except	Number of atoms	Its mass	Its geometry	Volume of the unit cell	С	eExam
MCQ	Which of these assumes the shape of its container?	Solid	Liquid	gas	vapor	В	еЕхат
MCQ	One of the followings is not true of liquids	The inability of a liquid to flow enables it to assume the shape of the container	A liquid never expands to fill the container	The characteristics of a liquid lie between those of a solid and a gas	Particles of liquid are free to move from one point to another	A	eExam

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