## eExam Question Bank

## Coursecode:

Choose Coursecode v


| $\square$ | $\begin{aligned} & \text { Question } \\ & \text { Type } \sqrt{\text { le }} \end{aligned}$ | Question $\downarrow \uparrow$ | A $\downarrow \uparrow$ | B | $\downarrow \uparrow$ | C | d $\uparrow$ | D $\downarrow \uparrow$ | Answer $\downarrow \uparrow$ | Remark $\downarrow \uparrow$ |
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| $\square$ | FBQ | The temperature above which a gas will not liquefy no matter what pressure is applied is known as $\square$ | Critical temperature |  |  |  |  |  |  | eExam |
| $\square$ | FBQ | The plot of solubility against temperature is called the $\square$ | Solubility curve |  |  |  |  |  |  | eExam |
| $\square$ | FBQ | $\square$ <br> is the fundamental unit in a crystal. | Unit cell |  |  |  |  |  |  | eExam |
| $\square$ | FBQ | In Charles' law, the volume of a gas $\square$ <br> when the temperature decreases | decreases |  |  |  |  |  |  | eExam |
| $\square$ | FBQ | The escape of molecules from the liquid surface to form vapor is called $\square$ | Evaporation or <br> Vaporization |  |  |  |  |  |  | eExam |
| $\square$ | FBQ | In fractional distillation, the process of successive vaporization and condensation is carried out in a $\square$ | Fractionating column |  |  |  |  |  |  | eExam |
| $\square$ | FBQ | A liquid that has high viscosity flows slowly, true or false? $\square$ | 1 |  |  |  |  |  |  | eExam |








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| $\square$ | 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 | B | eExam |
| $\square$ | MCQ | An ideal gas differs from a real gas in that the molecules of an ideal gas $\qquad$ . | have an average molecular mass | have no kinetic energy | have a molecular weight of zero | have no attraction for one another | D | eExam |
| $\square$ | MCQ | Ethanol dissolved in water would be an example of $\qquad$ | 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 |
| $\square$ | 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 $25 \$^{\wedge}\{0\} C \$$ if the pressure were decreased to 730 torr? | 27.8 L | 29.3 L | 32.3 L | 47.8 L | D | eExam |
| $\square$ | MCQ | The concentration of KBr in a solution prepared by dissolving 2.21 g of KBr in 897 g of water is $\qquad$ molal. | 2.46 | 0.0167 | 0.0207 | 0.0186 | C | eExam |
| $\square$ | MCQ | The vapor pressure of pure ethanol at $60^{\circ} \mathrm{C}$ 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 $\qquad$ atm. | 0.0918 | 0.413 | 0.498 | 0.79 | B | eExam |
| $\square$ | MCQ | In fractional distillation, a mixture of liquids is separated based on their | boiling points | solubility | density | chemical composition | A | eExam |
| $\square$ | 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 |
| $\square$ | 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 |
| $\square$ | MCQ | Which of these terms is not used to describe a solid which remains behind during a separation process? | sediment | filtrate | residue | solution | C | eExam |


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| $\square$ | 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 |
| $\square$ | 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 | B | eExam |
| $\square$ | 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 |
| $\square$ | MCQ | An ideal gas is contained in a volume V at temperature <br> T . If the volume is doubled at constant pressure, the temperature will be | Unchanged | Halved | Doubled | none of these | C | eExam |
| $\square$ | 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. | C | eExam |
| $\square$ | 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 nonvariable quantity. | A | eExam |
| $\square$ | MCQ | A sample of an ideal gas is held at constant temperature. If the pressure is decreased to $1 / 2 P$, the volume will be $\qquad$ | Increased to 2 V | Decreased to $1 / 2 \mathrm{~V}$ | Unchanged | reduced in multiples of two | A | eExam |


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| $\square$ | MCQ | A sample of nitrogen occupies 5.50 liters under a pressure of 900 torr at $25 \$ \wedge\{0\} C \$$. At what temperature will it occupy 10.0 liters at the same pressure? | $32 \$^{\wedge}\{\mathrm{o}\} C \$$ | \$-109 ^\{0\}C\$ | $154 \$^{\wedge}$ \{o\}C\$ | $269 \$^{\wedge}$ \{o\}C\$ | D | eExam |
| $\square$ | 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 | B | eExam |
| $\square$ | MCQ | Which of the following is a pure substance made up of one type of atoms? | A mixture | An element | A compound | A solution | B | eExam |
| $\square$ | 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 |
| $\square$ | MCQ | In order to dissolve the greatest amount of sugar in a cup of water, you should $\qquad$ . | 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 | A | eExam |
| $\square$ | 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 <br> with temperature | A highly viscous liquid flows slowly | C | eExam |
| $\square$ | MCQ | The kinetic energy of gas molecules is directly proportional to temperature in $\qquad$ | Celcius | Kelvin | degree kelvin | none of these | B | eExam |
| $\square$ | MCQ | A separation technique which involves charging particles and then attracting them to oppositely charged metal plates is called $\qquad$ separation. | absorption | electrostatic | magnetic | gravity | B | eExam |
| $\square$ | MCQ | Which of these is a derived physical quantity? | Area | Time | Luminous intensity | Mass | A | eExam |




