

FINAL EXAM STUDY GUIDE

<i>Topic</i>	<i>Text Reference</i>
CHAPTER 8	
<ul style="list-style-type: none"> • Know the general properties of gases • Know the postulates of the Kinetic Molecular Theory • Know the units and instruments for measurement of pressure • Know the relationship between volume and pressure of a gas (Boyle's Law) • Know the relationship between volume and temp. of a gas (Charles's Law) • Know the relationship between pressure and temp. of a gas (Gay-Lussac's Law) • Know what vapor pressure is and what factors it depends on • Know the definition of boiling point and how it changes with external pressure • Determine volume, temp., or pressure of a gas using the Combined Gas Law • Know the relationship between pressure and moles of a gas (Avogadro's Law) • Know molar volume of gases at STP conditions • Use molar volume and STP conditions to solve chemical problems involving gases • Use the Ideal Gas Law to determine pressure or volume of a gas • Use gas laws to solve problems involving chemical reactions • Use Dalton's law of partial pressures to determine partial pressure of each gas in a mixture 	8.1 8.1 8.1 8.2 8.3 8.4 8.4 8.4 8.4 8.5 8.6 8.6 8.6 8.7 8.7 8.8
CHAPTER 9	
<ul style="list-style-type: none"> • Know the definition of a solution and its components (solute and solvent) • Know the types of solution and an example of each (Table 9.1) • Determine the solubility of a solute in a solvent based on polarity • Distinguish between strong electrolytes, weak electrolytes and non-electrolytes • Determine the number of equivalents per mole for an ion • Calculate the equivalents of an ion based on its concentration and charge • Solve problems with equivalents and mass/mole of an ion • Know the factors that affect the solubility of a solute in a solvent • Know the effect of temperature on solubility of solids and gases • Differentiate between unsaturated and saturated solutions. • Determine the solubility of a substance at any temperature using solubility graphs. • Identify an ionic salt as soluble or insoluble based on solubility rules • Predict formation of a precipitate and write net ionic equation for its formation • Calculate the concentration of solutions as mass percent (m/m and m/v) • Calculate the concentration of solutions as moles/liter (molarity). • Solve problems using mass percent and molarity as conversion factors • Solve problems involving dilutions • Calculate the osmolarity of a solution from its molarity • Determine the tonicity of a solution based on its osmolarity 	9.1 9.1 9.1 9.2 9.2 9.2 9.2 9.2 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.4 9.4 9.4 9.4 9.5 Notes 9.6, Notes

