Atomi WACE Chemistry Study Plan

EXAM DATE: 06 NOV 2020

Revision (5–6 weeks from exam)

Session	Module	Subtopic	Important lessons	Done
1	**Chemical Equilibrium Systems**	Rates of Reaction	Collision Theory and Reaction Rates (Part 1 and Part 2)	○
		Reversible Reactions and Equilibrium		○
		Shifts in Equilibrium	Collision Theory and Le Chatelier's Principle	○
2		Equilibrium Constants	Equilibrium Constant (Kc), Using RICE Tables and Equilibrium Constants	○
	Acids and Bases	Describing Acids and Bases	Strength of Acids and Bases	○
		Calculating Acidity and Basicity	Dilution pH Calculations, Neutralisation pH Calculations, Acid Dissociation Constant Calculations	○
3		Titration	Titration Calculations, Titration and pH Curves	○
		Buffers	Buffers	○
4	**Oxidation and Reduction**	Redox Reactions	Redox Reaction Equations, Oxidation States: Worked Examples	○
		Galvanic Cells	Standard Reduction Potentials (Part 1 and Part 2)	○
5		Electrolytic Cells	Electrolysis of Molten Ionic Compounds, Effects of Concentration on Electrolysis of Sodium Chloride, Effects of Concentration on Electrolysis of Copper Sulfate, Comparing Electrochemical Cells	○
	Properties and Structure of Organic Materials	Nomenclature and Representation	Drawing Compounds from their Names	○
		Isomerism	Structural Isomerism, Cis/Trans Isomerism	○

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Session	Module	Subtopic	Important lessons	Done
6	**Properties and Structure of Organic Materials**	Hydrocarbons	Testing for Alkenes	○
		Introduction to Reaction Mechanisms	Types of Reactions	○
		Alcohols	Oxidation of Alcohols	○
7		Organic Acids and Bases	Formation of Esters, Identifying and Naming Esters	○
		Comparing Organic Compounds	Comparing Boiling Points and Solubility of Organic Compounds	○
		Polymers	Addition Polymers Properties and Uses, Condensation Polymers Properties and Uses	○
		Proteins		○
8	**Chemical Synthesis**	Enzymes	Factors Affecting Enzyme Activity	○
		Synthesis Processes	Optimising Yield and Rate, Reaction Pathways	○
		Soaps	Cleaning Action of Soaps and Detergents	○

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Practice (3–4 weeks from exam)

Session	Topic	Subtopic	Confidence	Done
1	**Chemical Equilibrium Systems**	Rates of Reaction	○ ○ ○ ○ ○	○
		Reversible Reactions and Equilibrium	○ ○ ○ ○ ○	○
		Shifts in Equilibrium	○ ○ ○ ○ ○	○
2		Equilibrium Constants	○ ○ ○ ○ ○	○
	Acids and Bases	Describing Acids and Bases	○ ○ ○ ○ ○	○
		Calculating Acidity and Basicity	○ ○ ○ ○ ○	○
3		Titration	○ ○ ○ ○ ○	○
		Buffers	○ ○ ○ ○ ○	○
4	**Oxidation and Reduction**	Redox Reactions	○ ○ ○ ○ ○	○
		Galvanic Cells	○ ○ ○ ○ ○	○
5		Electrolytic Cells	○ ○ ○ ○ ○	○
	Properties and Structure of Organic Materials	Nomenclature and Representation	○ ○ ○ ○ ○	○
		Isomerism	○ ○ ○ ○ ○	○
6		Hydrocarbons	○ ○ ○ ○ ○	○
		Introduction to Reaction Mechanisms	○ ○ ○ ○ ○	○
		Alcohols	○ ○ ○ ○ ○	○
7		Organic Acids and Bases	○ ○ ○ ○ ○	○
		Comparing Organic Compounds	○ ○ ○ ○ ○	○
		Polymers	○ ○ ○ ○ ○	○
		Proteins	○ ○ ○ ○ ○	○
8	**Chemical Synthesis**	Enzymes	○ ○ ○ ○ ○	○
		Synthesis Processes	○ ○ ○ ○ ○	○
		Soaps	○ ○ ○ ○ ○	○