A Class

Chapter	Topic	Summary topics	Problems
3	Atomic Shells and Classical Models of Chemical Bonding	Electron Pair Bonds and Lewis Diagrams for Molecules	85, 90, 93, 101, 104
		The Shapes of Molecules : Valence Shell Electron-Pair Repulsion Theory	
4	Introduction to Quantum Mechanics	The Bohr Model : Predicting Discrete Energy Levels in Atoms	45, 49, 51, 57
		The Schrodinger Equation	
5	Quantum Mechanics and Atomic Structure	Quantum-mechanical description of the hydrogen atom	43, 48, 51, 54, 58
		Shell model for many-electron atoms	
6	Quantum Mechanics and Molecular Structure	Molecular orbital theory	65, 68, 70, 71, 73
		LCAO and VB method	
7	Bonding in Organic Molecules	The Alkenes and Alkynes	37, 38, 39, 40, 41
		Functional Groups and Organic Reactions.	
8	Bonding in Transition Metal Compounds and Coordination Complexes	Introduction to Coordination Chemistry	47, 51, 54, 58, 65
		Structures of Coordination Complexes	
9	The Gaseous State	The Ideal Gas Law	63, 67, 71, 73, 75
		The Kinetic Theory of Gases	
10	Solids, Liquids, and Phase Transitions	Intermolecular Forces : Origin in Molecular Structure	55, 57, 59
		Phase Diagram	
11	Solutions	Reaction Stoichiometry in Solutions : Acid-Base Titrations	65, 67, 69, 77
		Reaction Stoichiometry in Solutions : Oxidation-Reduction Titrations	