

Problems	Points	Credit
1. Functional Group Nomenclature (1 large structure)	30	
2. 2D Lewis structure (large structure with possible formal charge)	20	
3. Cyclohexane Conformations, 2 substituents, Newman Projections	25	
4. Newman Projections, Conformational Energies	25	
5. Stereochemical Analysis	25	
6. 3D Structure, Resonance, Hybridization, Angles, Shapes, etc.	30	
7. Forces of Interaction and Physical Properties	20	
8. Acid / Base Chemistry, Explanation, Curved Arrows, Formal Charge (7)	42	
9. S _N /E Mechanisms, with all of the details (templates provided)	43	
10. Various Nucleophile/Electrophile Reactions, Predict the Products (30 reactions, 1.5 points each)	45	
11. S _N / E mechanism problem, supply all mechanism details.	20	
12. Fill in Arrow-Pushing Mechanistic Details, curved arrows, lone pairs, formal charge, one in acid and one in base	40	
Total	365	

Points from Midterm Material, Problems 1-7 = 175 points

Points from Newer Material, Problems 8-12 = 190 points

Point values of newer material have been deliberately inflated relative to pre-midterm material.

This is a long exam. It has been designed so that no one question will make or break you. The best strategy is to work steadily, starting with those problems you understand best. Make sure you show all of your work. Draw in any lone pairs of electrons, formal charge and curved arrows to show electron movement where appropriate. Do your best to show me what you know in the time available. Only write answers in the space provided.