

Chem 201 Midterm
Spring, 2018
Beauchamp

Name _____

Problems	Points	Credit
1. Functional Group Nomenclature (1 large structure)	30	
2. Resonance, Formal Charge, Arrows	18	
3. Cyclohexane Conformations, Newman Projections	30	
4. Newman Projections, Conformational Energies	25	
5. Stereochemical Analysis	30	
6. 3D Structure, Resonance, Hybridization, Angles, Shapes (1)	30	
7. 2D Lewis Structures (1, large)	20	
8. Functional Groups, Names or Types of Isomers or Special Types of Carbons and Substituents, Degrees of Unsaturation	25	
9. Forces of Interaction and Physical Properties	20	
10. Properties of Atoms, (ionization potential, Z_{eff} , radii, electronegativity), Logic Arguments of Organic Chemistry (inductive, resonance, steric)	30	
Total	258	

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.

Option for improving your grade.

1. Use the links for a blank copy of the midterm and the exam key and print out copies.

blank midterm copy link: This link will be posted after the midterm exam

midterm key link: This link will be posted after the midterm exam

Study the key until you think you understand each question. Retake the exam with only your one page of notes. When you retake the exam, attempt every problem on the exam. If possible, trade with another student and correct each others exam (IN DETAIL) using the key. If you cannot find a person to trade with, then grade your own exam. Use a different color of ink to make corrections so they are clearly evident. Assign a percent score based on the total number of points. Turn in your corrected exam by Tuesday (5/8). No matter what score you get on the regrade, I will recalculate your exam score as follows:

$$\text{New score} = (\text{original score}) + (100 - \text{original score})(0.10)$$

examples	old score	new score
$100 = 100 + 2 = 102$	100	102
$90 + + 2 = 92$	90	92
$(80) + (100 - 80)(0.1) = 80 + 2 = 82$	80	82
$(70) + (100 - 70)(0.1) = 70 + 3 = 73$	70	73
$(60) + (100 - 60)(0.1) = 60 + 4 = 64$	60	64
$(50) + (100 - 50)(0.1) = 50 + 5 = 55$	50	55
$(40) + (100 - 40)(0.1) = 40 + 6 = 46$	40	46
$(30) + (100 - 30)(0.1) = 30 + 7 = 37$	30	37
$(20) + (100 - 20)(0.1) = 20 + 8 = 28$	20	28
$(10) + (100 - 10)(0.1) = 10 + 9 = 19$	10	19
$(0) + (100 - 0)(0.1) = 0 + 20 = 20$	0	20

Include the following statement at the bottom of the exam cover page.

I have taken the following exam by myself. The only resources used to take this exam were myself, my pencil and my one page of notes from the actual midterm.

Print your name _____

I graded the exam of (print) _____

Grader of this exam (print) _____

- Do not miss any lecture for the rest of the quarter. Be an active participant in each lecture. Review each lecture in an active manner before the next lecture. Read the notes and rework the information in a manner compatible with your way of thinking. Keep a written list of specific questions as they occur to you and stop by at office hours to try and resolve them.
- Do all of the homework assignments in the lecture notes for the rest of the quarter. Do not copy a homework solution key without writing out your answer for the problem by yourself. Then check your answer.
- Study organic chemistry at least 1-2 hour every day (minimum). When you study use a pencil and much scratch paper as you need to fully and explicitly do the work. Another option is to use a small whiteboard and write out your answers, check them, erase and rewrite them. Continually write out your answers. Repeat the problems over and over. Your hand will train your mind - if you let it. No one learns organic chemistry from a casual effort. It is a waste of your time and a deception to your intelligence to pretend otherwise.