

Name: _____

The University of Akron
Chemistry 3150:264
Organic Chemistry

Exam #2
August 5, 2008
221 pts

There are eight (8) pages and eight (8) questions on this exam. Please check to see that you have a complete test. If you do not, please see me **NOW**. Please read and follow the directions to each question carefully.

Points:

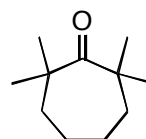
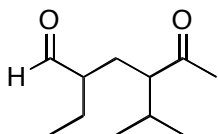
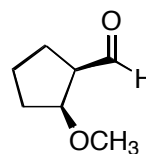
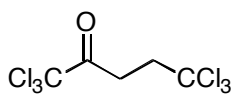
<u>Problem</u>	<u>Points</u>
1	15
2	15
3	21
4	35
5	35
6	35
7	35
8	30
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	221 Total

Bonus 5

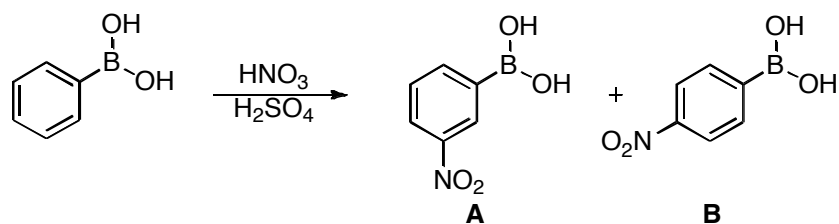
I been gamblin' hereabouts for ten good solid years,
If I told you all that went down it would burn off both of your ears.
Goes to show you don't ever know
Watch each card you play and play it slow...

-J. Garcia, R. Hunter

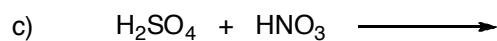
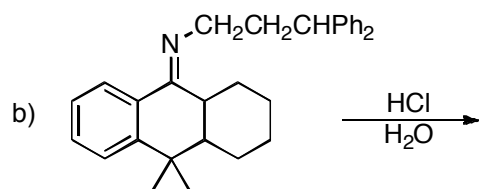
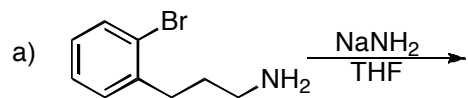
1) Give the correct common or IUPAC nomenclature for *three* of the following molecules. Be sure to include stereochemical designations where necessary and indicate *clearly* which answers you want graded. (15 pts)



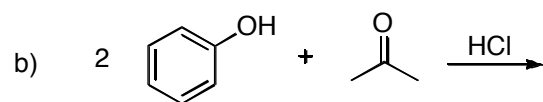
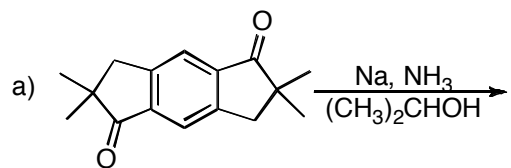
2) Predict which of the two products is formed in greater yield. In order to receive full credit you must explain why that product is preferentially formed. (15 pts)



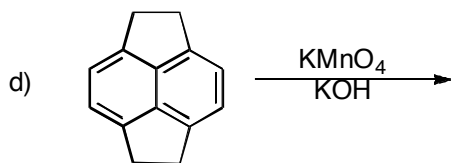
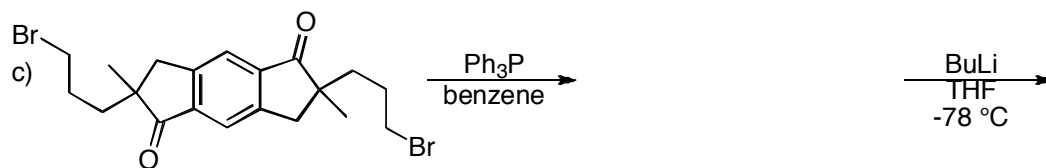
3) Indicate the expected product(s) from the following reactions. Be sure to show stereochemistry where necessary in your answers. (21 pts)



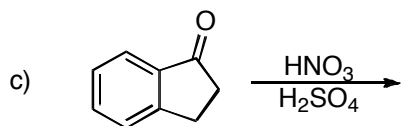
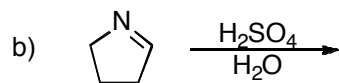
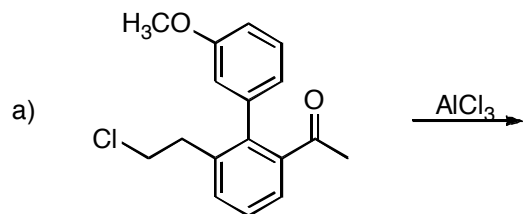
4) Indicate the expected product(s) from the following reactions. Be sure to show stereochemistry where necessary in your answers. (35 pts)



Bisphenol A
C₁₅H₁₆O₂

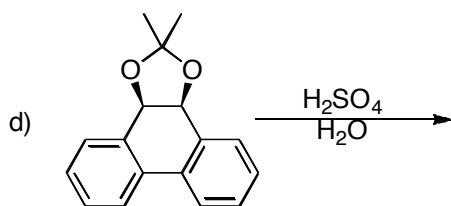


5) Indicate the expected product(s) from the following reactions. Be sure to show stereochemistry where necessary in your answers. (35 pts)

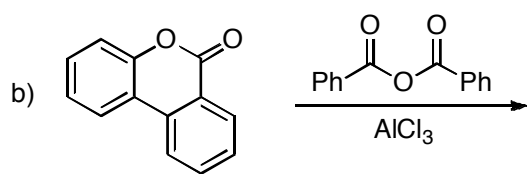
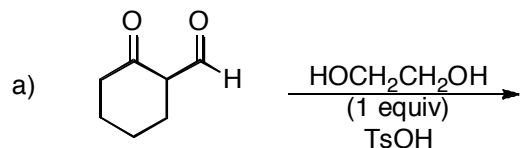


A

B

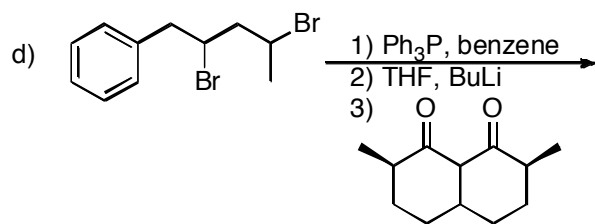
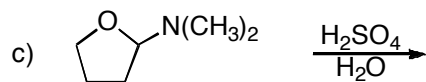


6) Indicate the expected product(s) from the following reactions. Be sure to show stereochemistry where necessary in your answers. (35 pts)

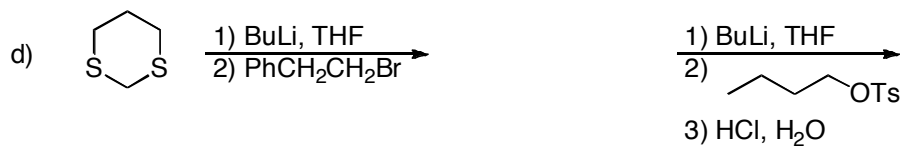
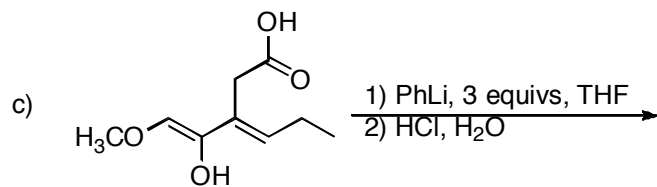
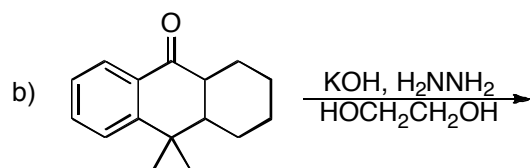
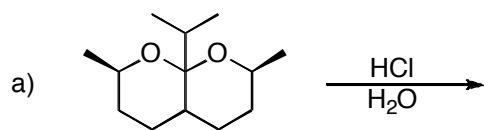


A

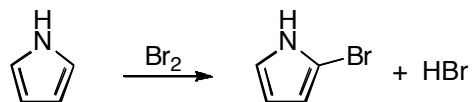
B



7) Indicate the expected product(s) from the following reactions. Be sure to show stereochemistry where necessary in your answers. (35 pts)



8) Provide a detailed and reasonable mechanism for the following reaction. Be sure to show all resonance structures, charges and relevant arrows. If stereochemistry is important in the reaction, be sure to include the relevant information in your answer. (30 pts)



Bonus: What does the starting molecule in 7a look like to you (this is the Rorschach part of the exam ;-)?