

Chemistry 334

Hour Examination #2

March 27, 1998

Professor Charonnat

Name: _____

Be certain that your examination has five (5) pages including this one.

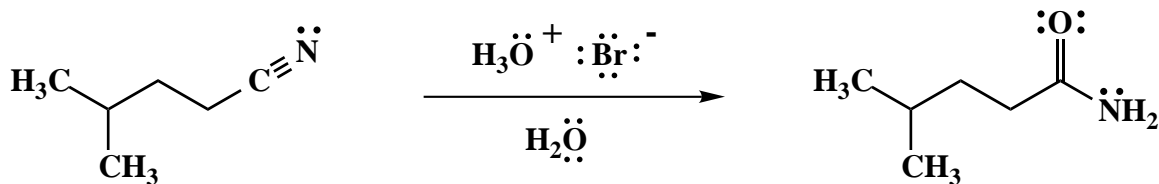
Put your name on **each** page of this examination booklet.

By putting your name on this examination booklet you agree to abide by California State University, Northridge policies of academic honesty and integrity.

Name: _____

1. (25 points)

Draw the mechanism of the following reaction, using the curved-arrow notation to indicate the reorganization of electron density. Show **all** intermediates and denote **all** unshared electrons, formal charges and countercharges where appropriate. Clearly denote reversibility or irreversibility for each primary mechanistic step.

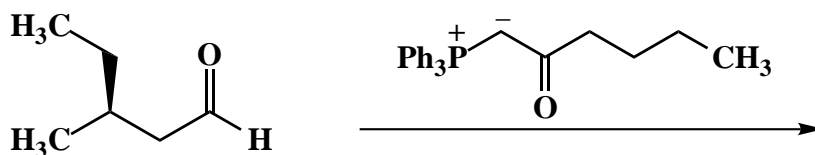


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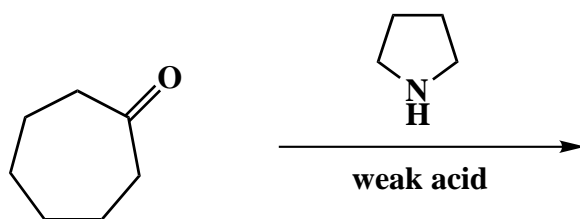
2. (25 points)

For each of the following five (5) questions draw the structure of the expected major organic product. If relevant, **explicitly** specify absolute and/or relative stereochemistry.

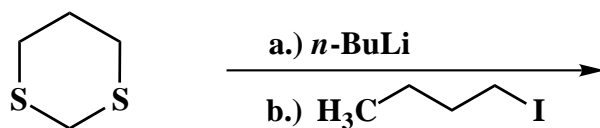
A.



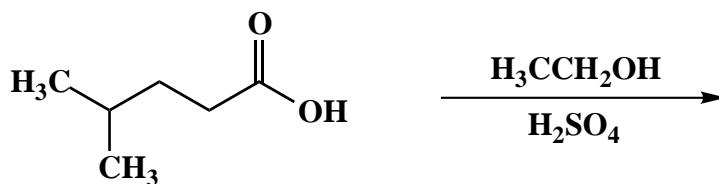
B.



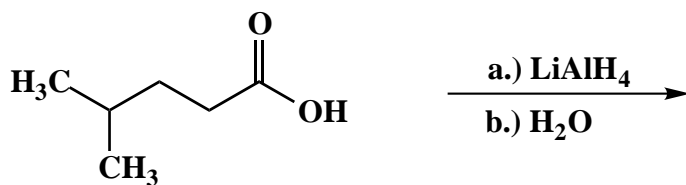
C.



D.



E.



Name: _____

5. (20 points)

Answer the following two (2) questions precisely, succinctly and with correct grammar.

A. Why is it impossible to convert a primary amide (RCONH_2) to the corresponding acid chloride (RCOCl) in one step? How would one accomplish this transformation in two steps?

B. Why is a carboxylic acid (RCO_2H) significantly more acidic than the corresponding primary alcohol (RCH_2OH)? Draw appropriate structures to illustrate your answer.

Congratulations!

1	/25
2	/25
3	/20
4	/10
5	/20
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Total:	/100