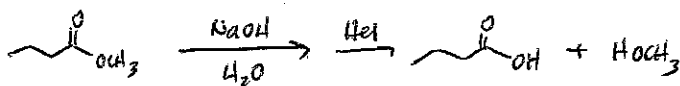


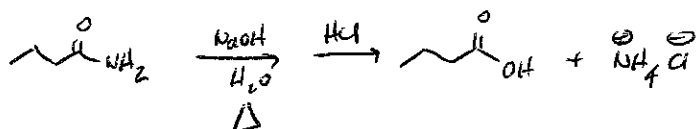
Submit notes to the Undergraduate Chemistry Office for posting.
PLEASE COMPLETE NOTES IN INK AND DO NOT STAPLE.

RECALL: HYDROLYSIS OF ESTERS VS. AMIDES UNDER

ALKALINE CONDITIONS → HARSHER CONDITIONS REQUIRED FOR AMIDE - WHY?

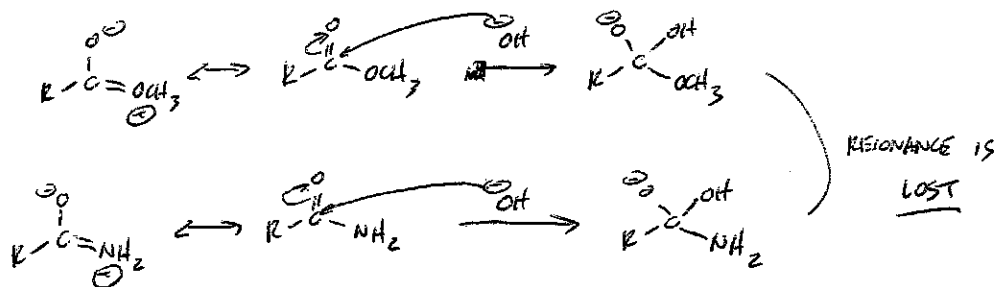


VS.



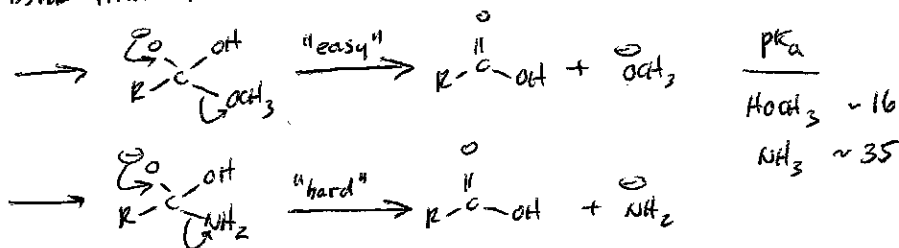
MECHANISTIC CONSIDERATIONS:

- 1) ESTER + AMIDE BOTH BENEFIT FROM RESONANCE, WHICH IS LOST UPON NUCLEOPHILIC ATTACK TO FORM TETRAHEDRAL INTERMEDIATE (TI)

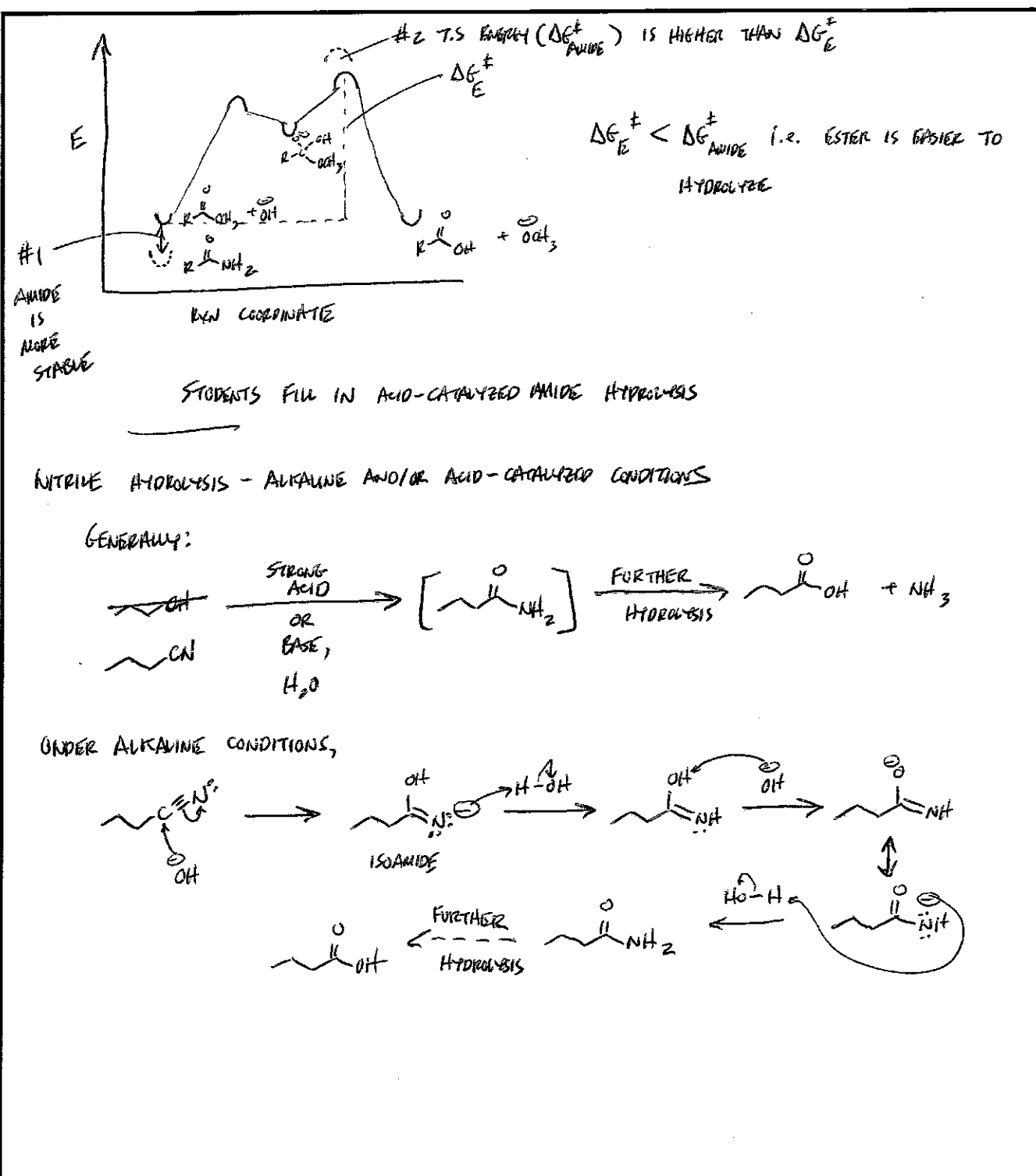


- SINCE GREATER RESONANCE DELocalIZATION IN AMIDE, AMIDE INTRINSICALLY LESS SUSCEPTIBLE TO NUCLEOPHILIC ATTACK

- 2) BREAKDOWN OF TI IS LESS FAVORABLE FOR AMIDE PATHWAY RELATIVE TO ESTER PATHWAY



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Course CHEM 345

Instructor GELMAN

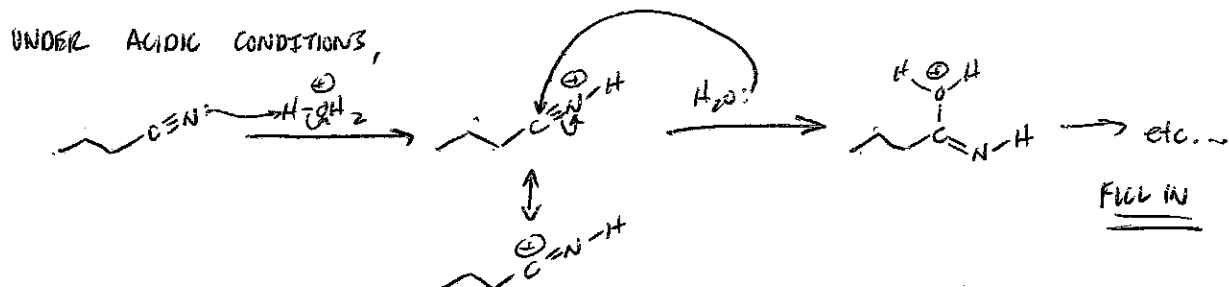
Day FRIDAY

Date 3/28/14

Notes Taken By ELIOT

Total # of Pages 3

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~~REACTION~~ REACTIVITY TREND:

ESTERS > AMIDES > NITRILES

REACTIVITY DECREASES →

READ SECTION 21.7, esp.

THE PART AT END ON
RELATIVE REACTIVITY AMONG
CARBOXYLIC ACID DERIVATIVES