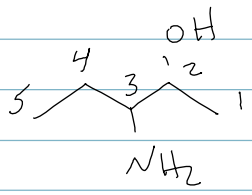
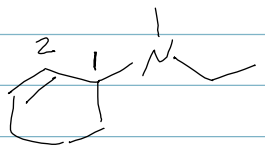
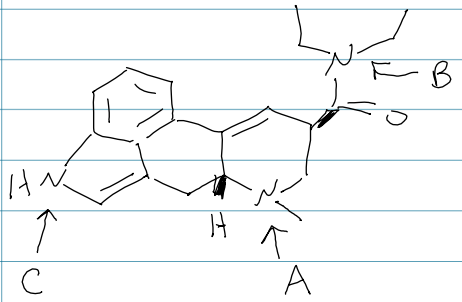
Chem 52 X13 Exam 3

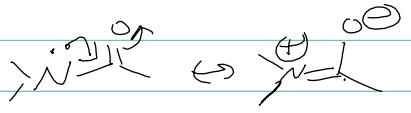
(1) 

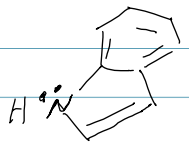
3-aminopentan-2-ol
or
3-amino-2-pentanol



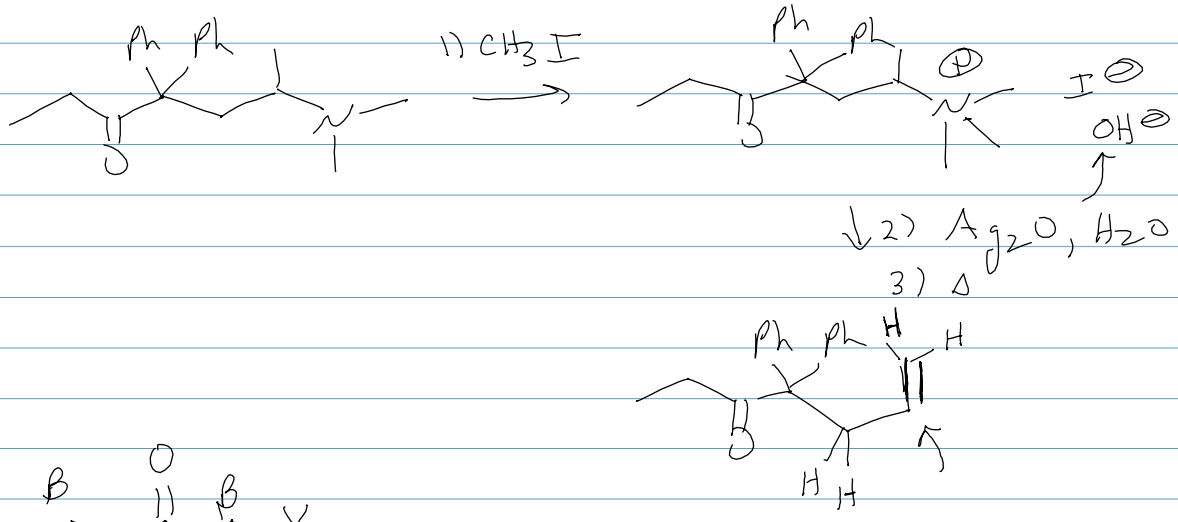
N-ethyl-N-methylcyclohex-2-enamine
or
N-ethyl-N-methyl-2-cyclohexenylamine

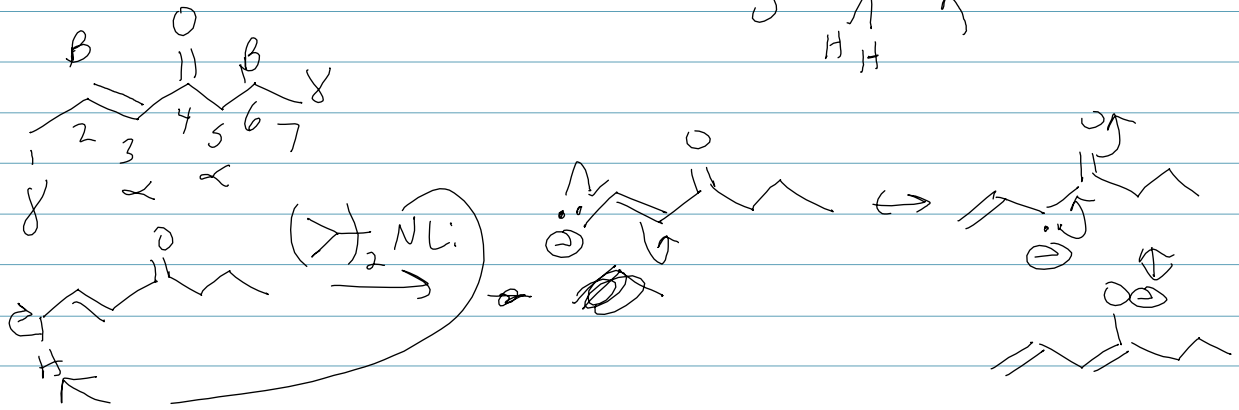
(2) 

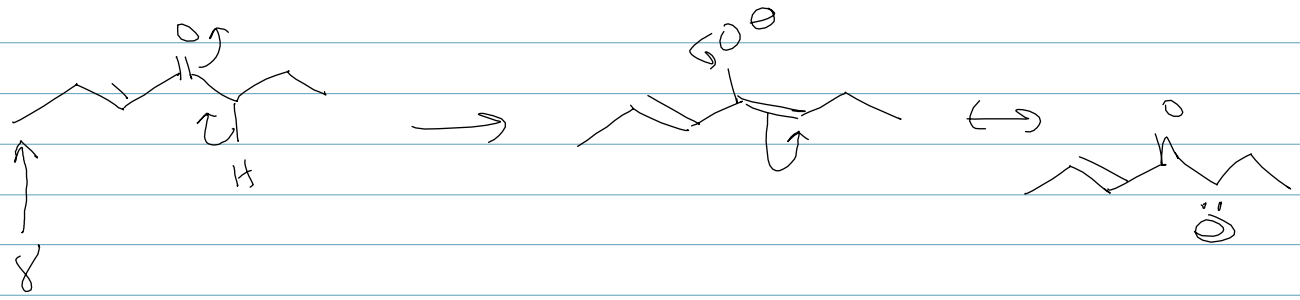
N_A 3° amine
N_B 3 amide 

N_C  $4n+2$ $(=10)$

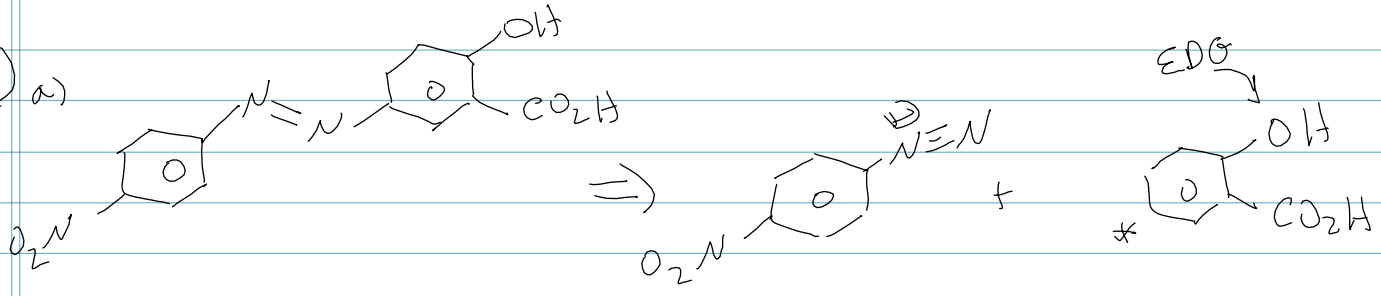
N_A is most basic.

(3) 

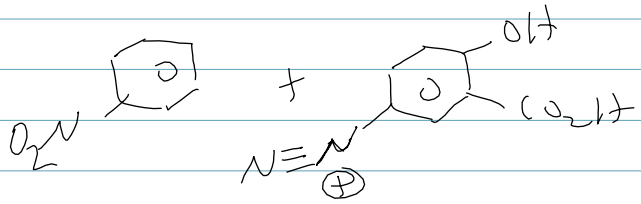
(4) 



(5) a)



not



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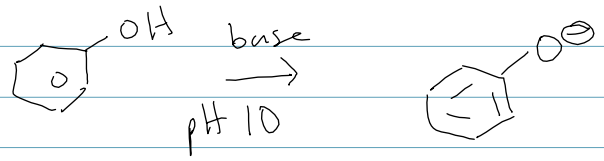
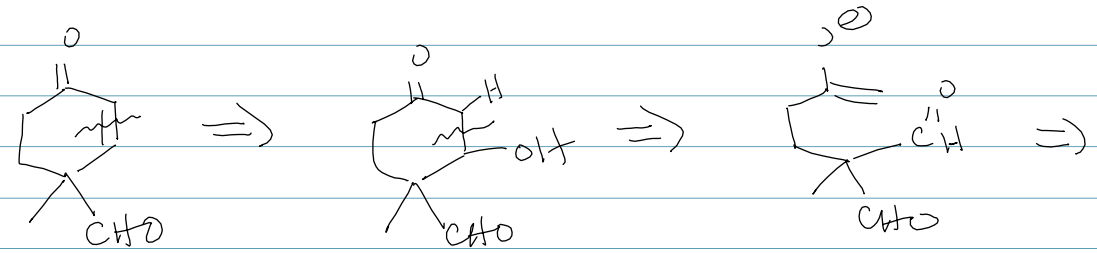
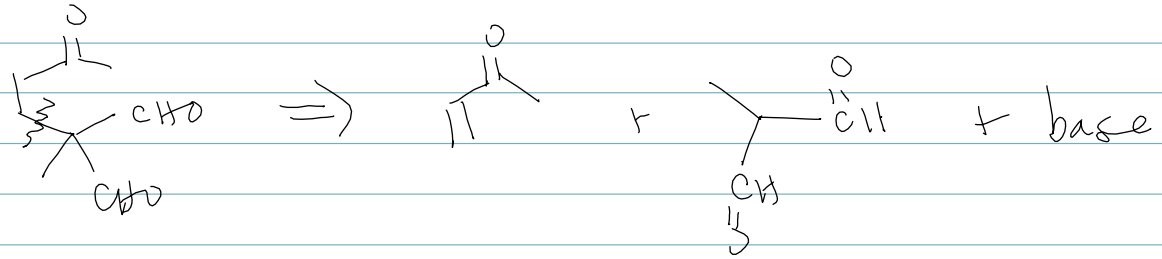
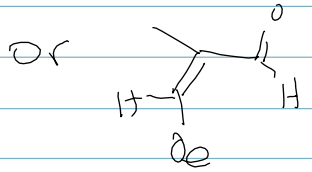


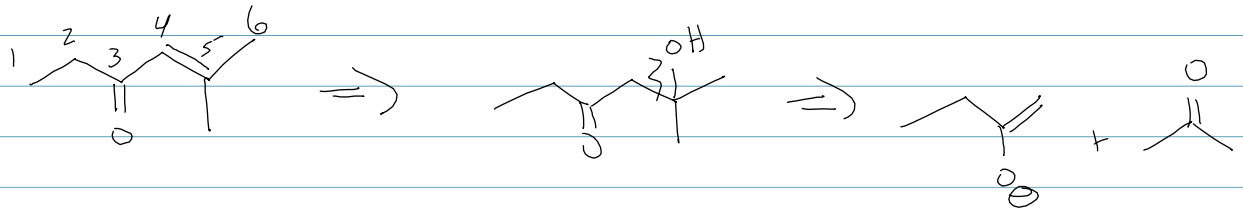
(6)



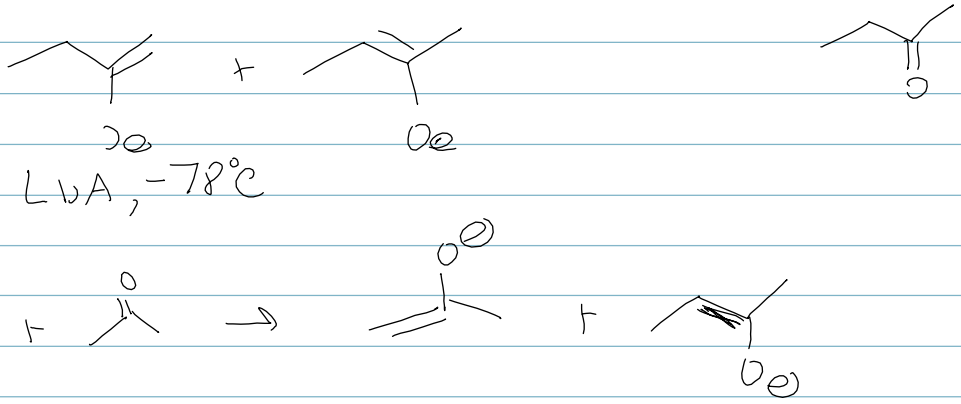


or



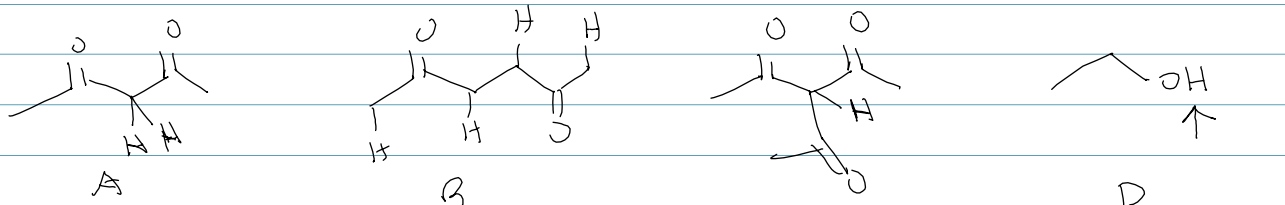
(7) 

1) condensing ketones

2) 
LDA, -78°C

3) self-condensation & mixed condensations

NO

(2) 

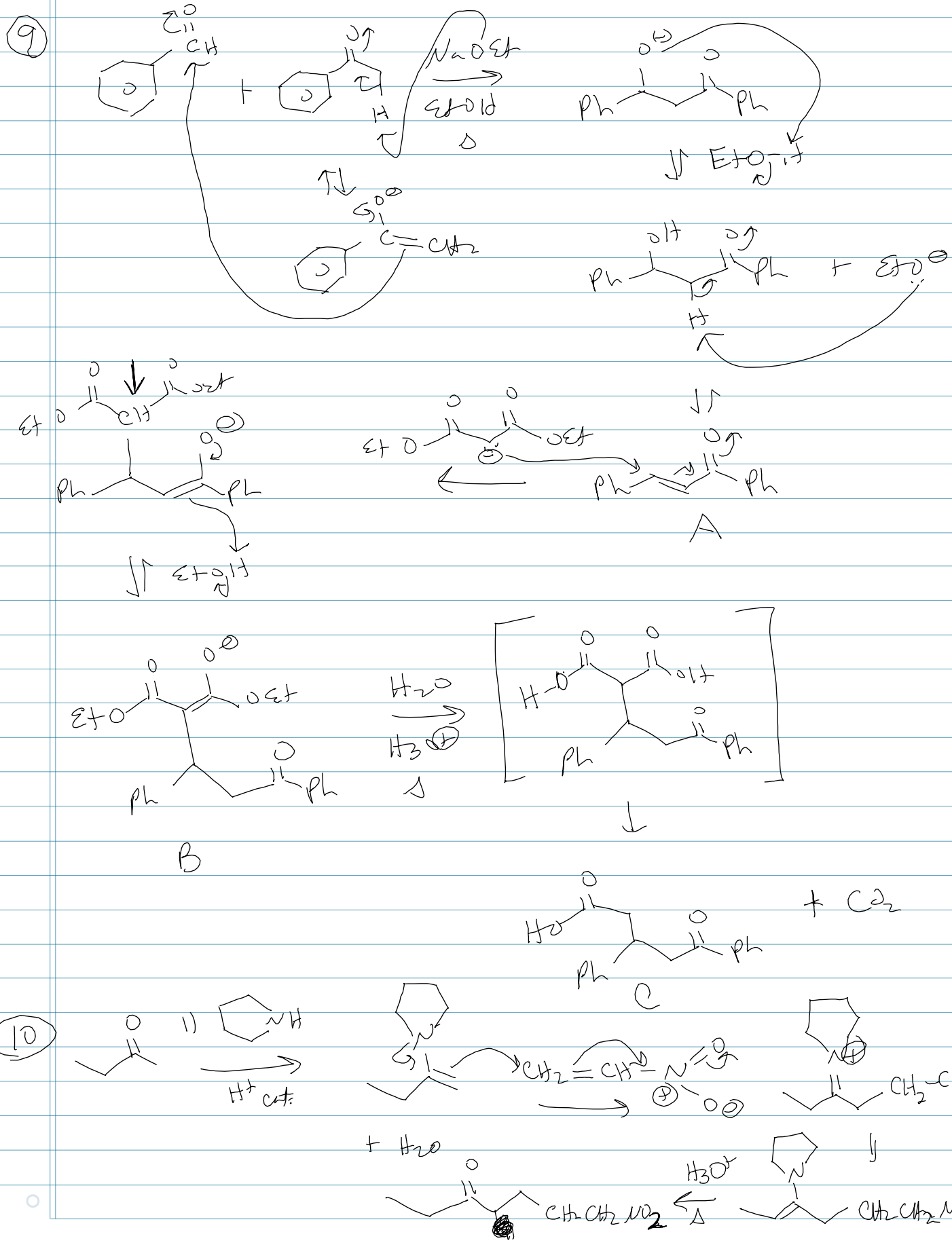
A
pka ~ 9

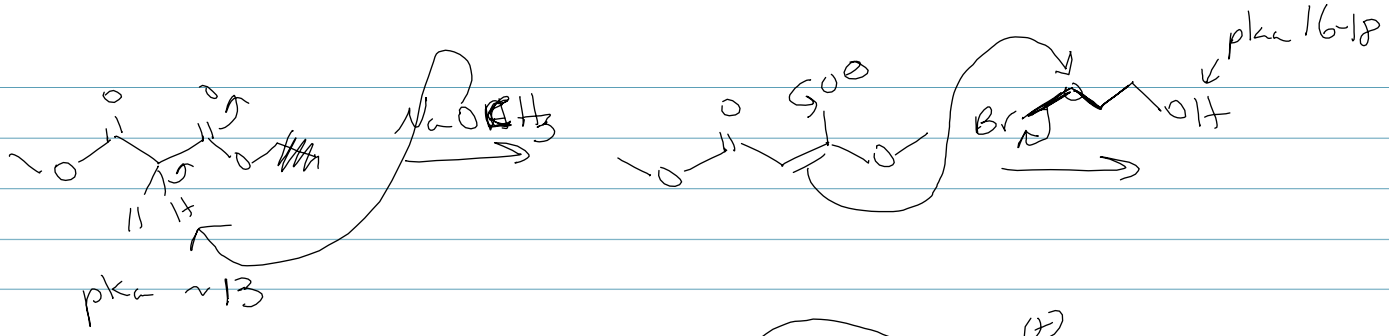
B
pka ~ 20

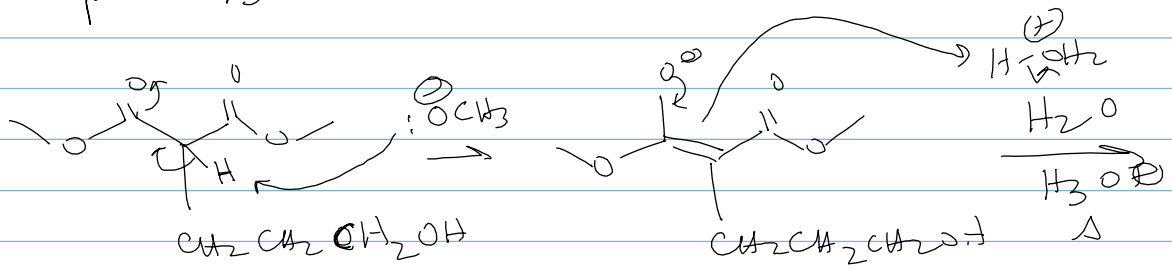
C
< pka 9

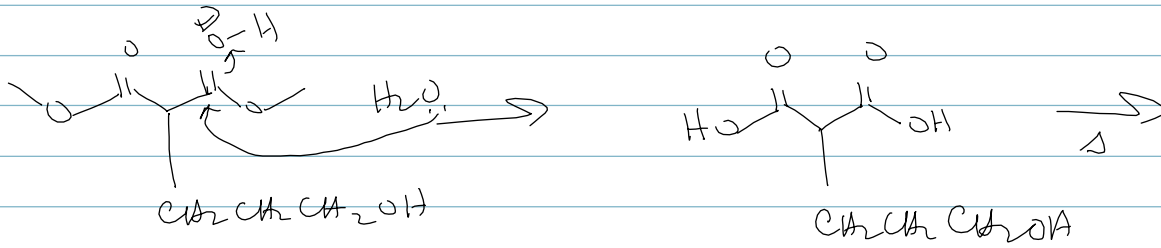
D
pka ~ 16-18

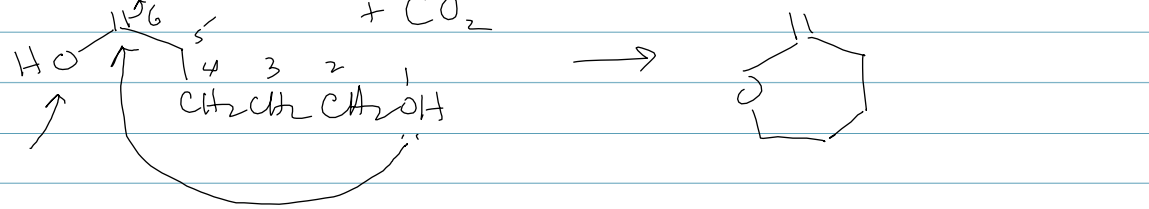
least acid. B D A C most acidic

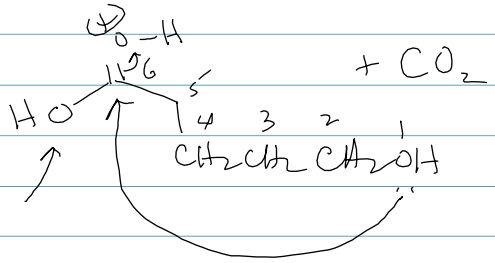


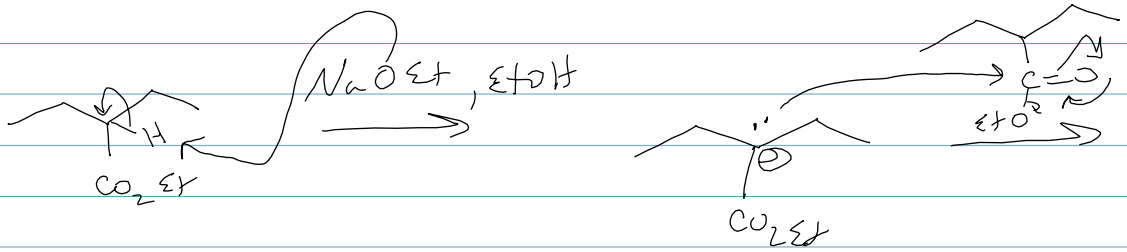


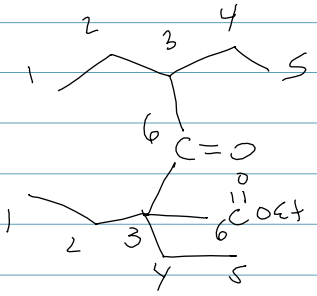


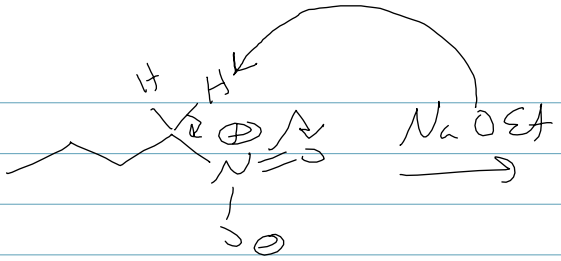


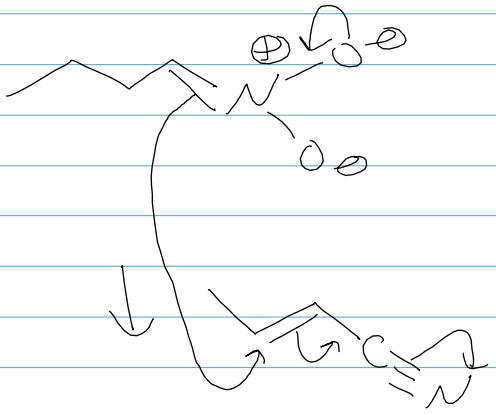


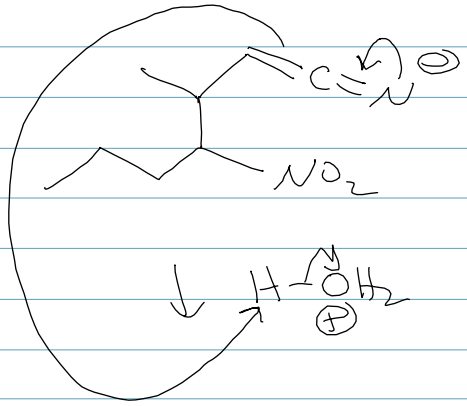


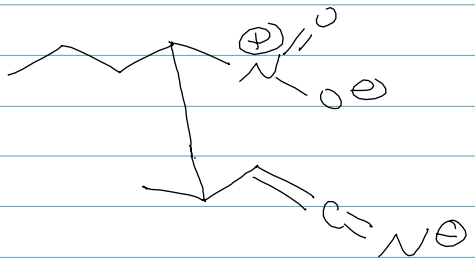


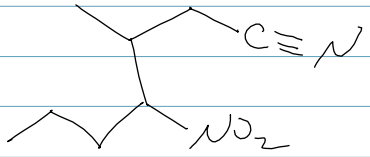


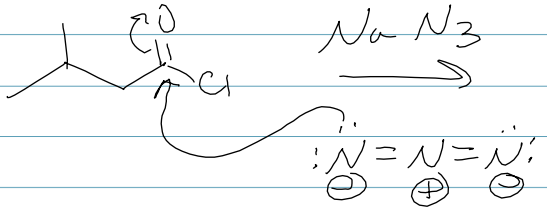


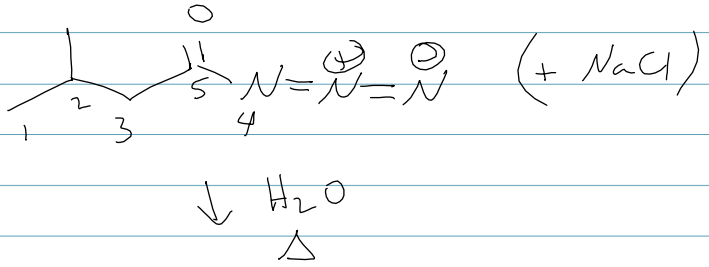


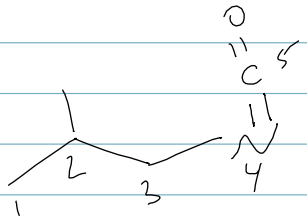


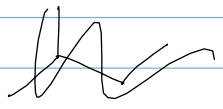


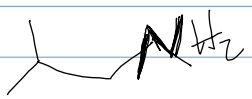




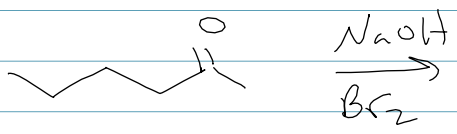


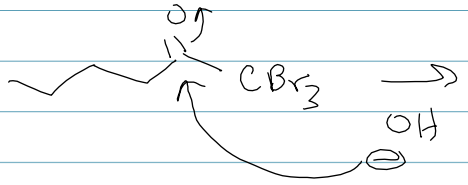


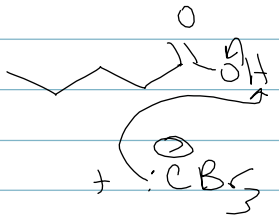




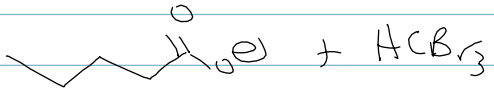
Curtius rearrangement

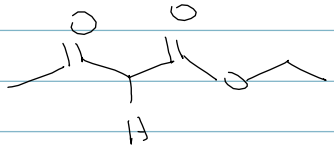


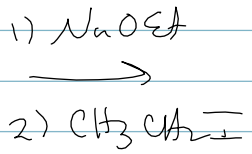


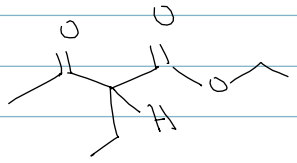


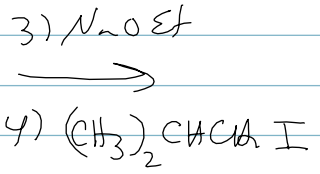
haloform

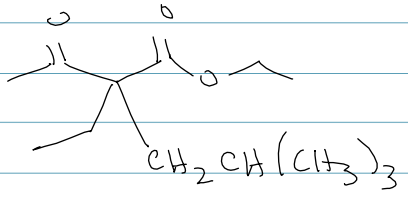


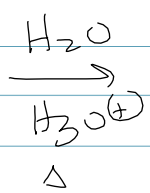


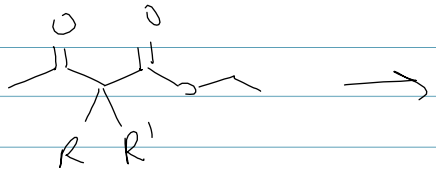


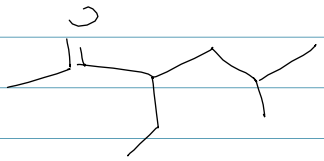






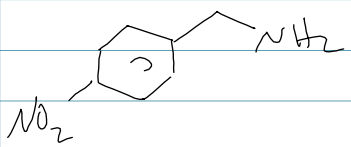






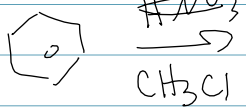
acetoacetic ester syn.

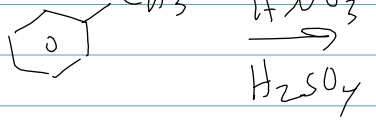
(11)

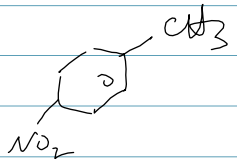


1° amine 1) Gabriel syn.

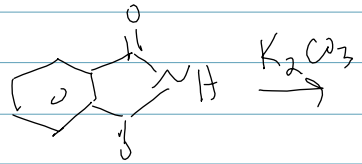
Rt. 11

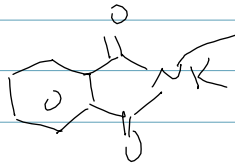


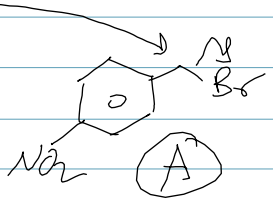


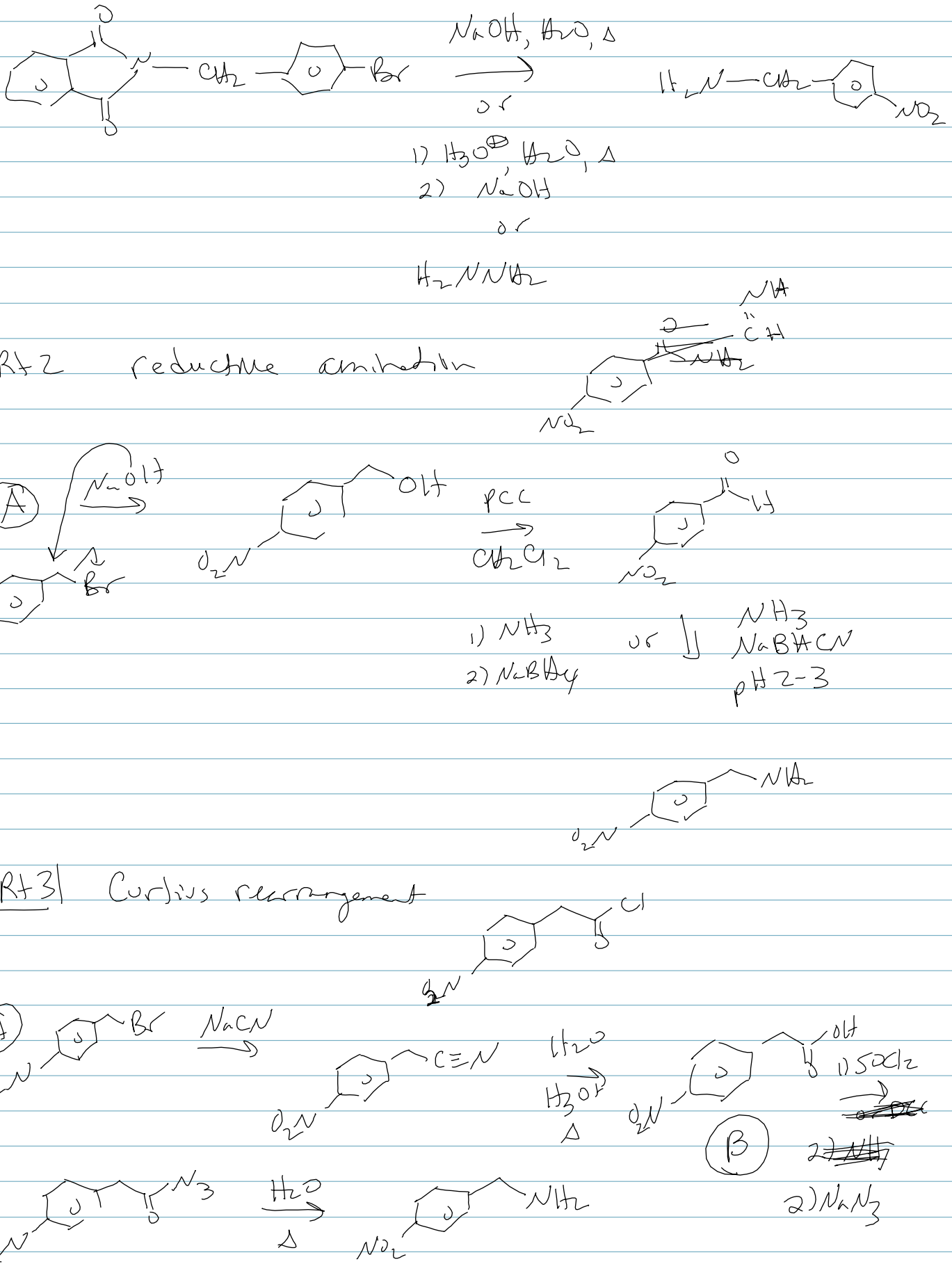


1) Br2, hν

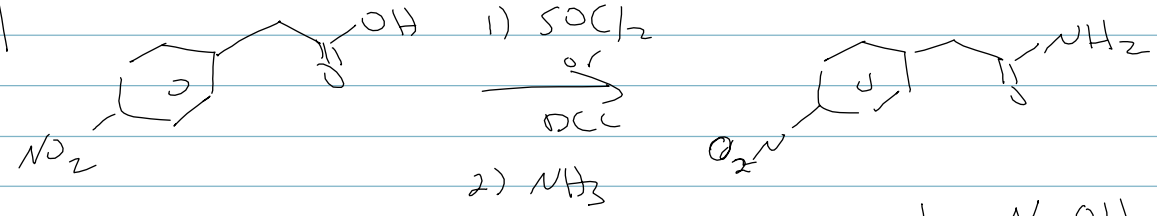




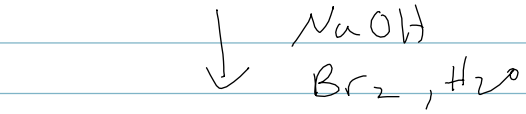


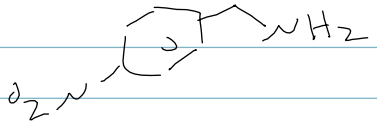


R+4

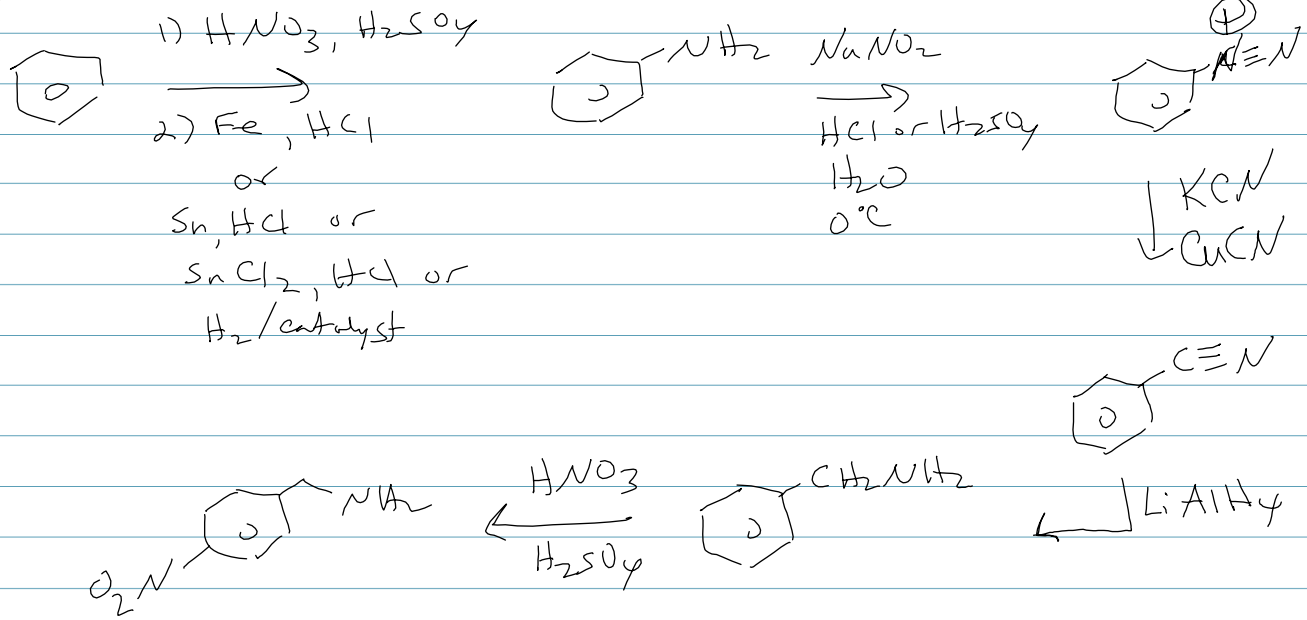


Hofmann elimination

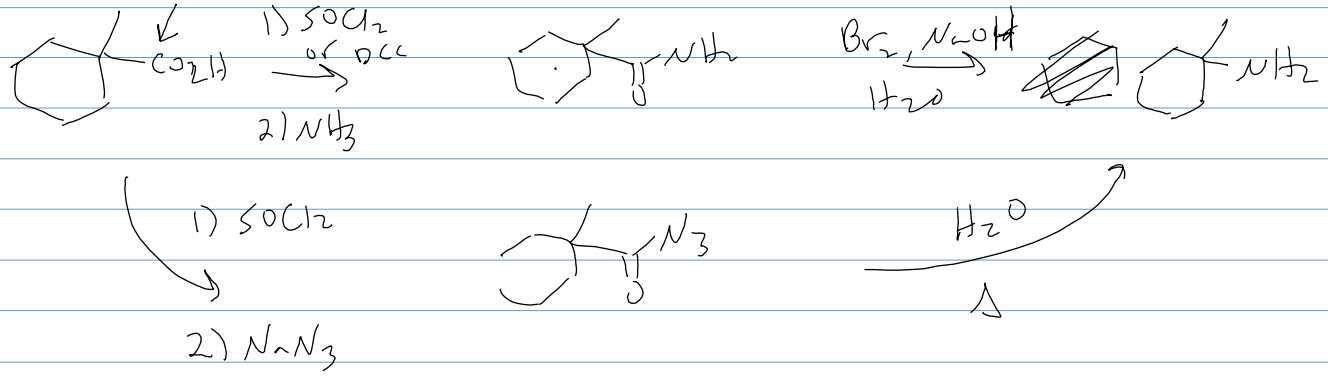


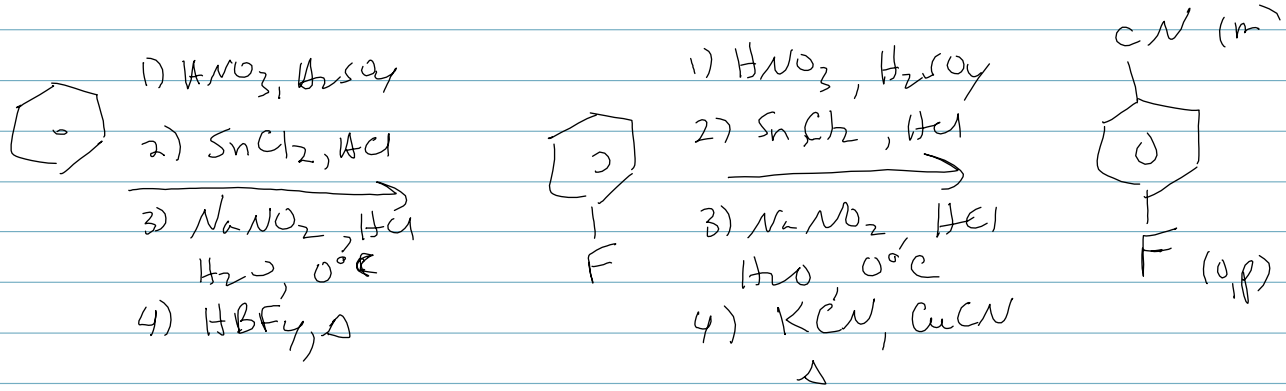


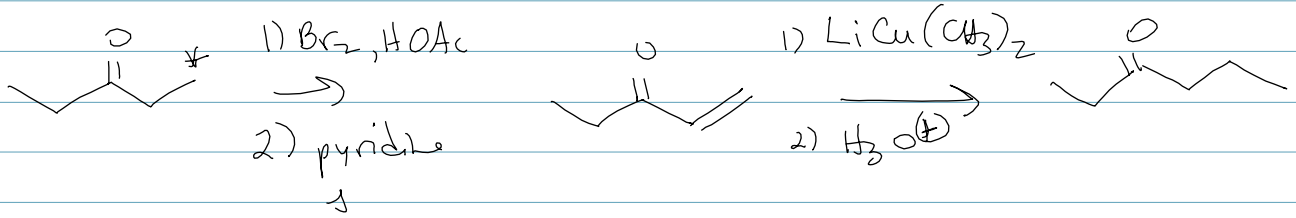
R+5

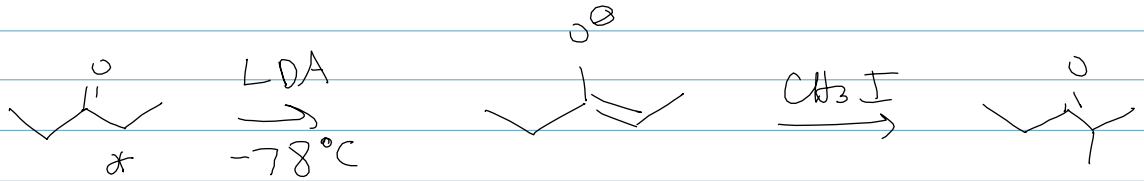


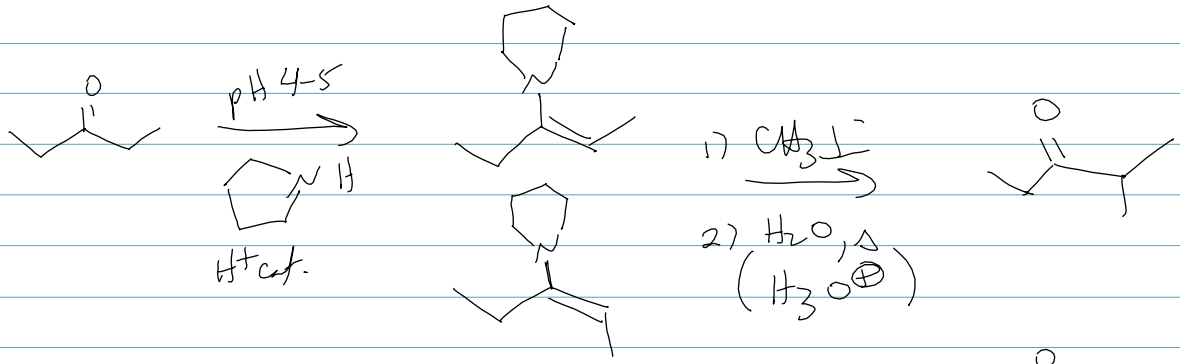
12



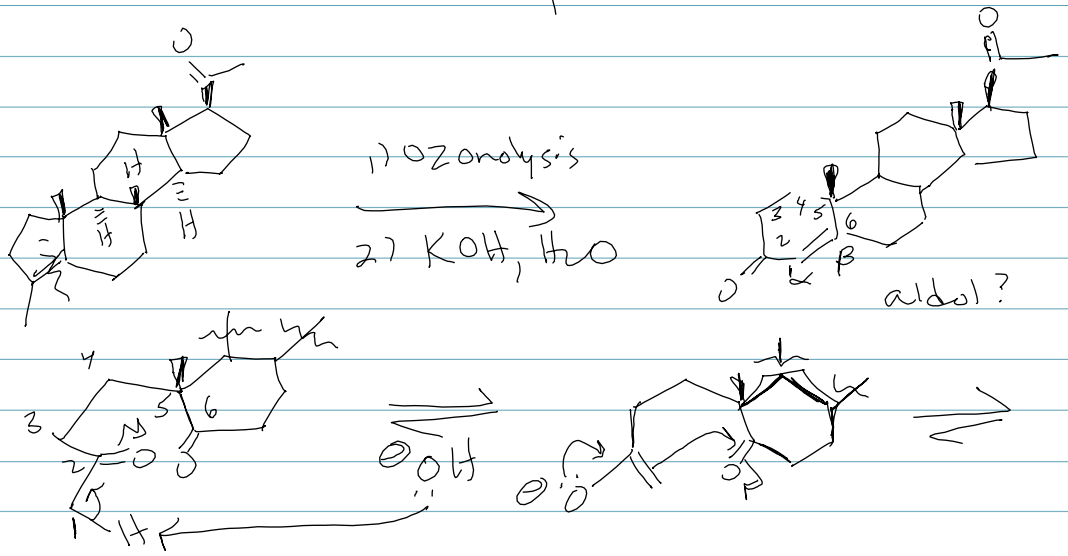


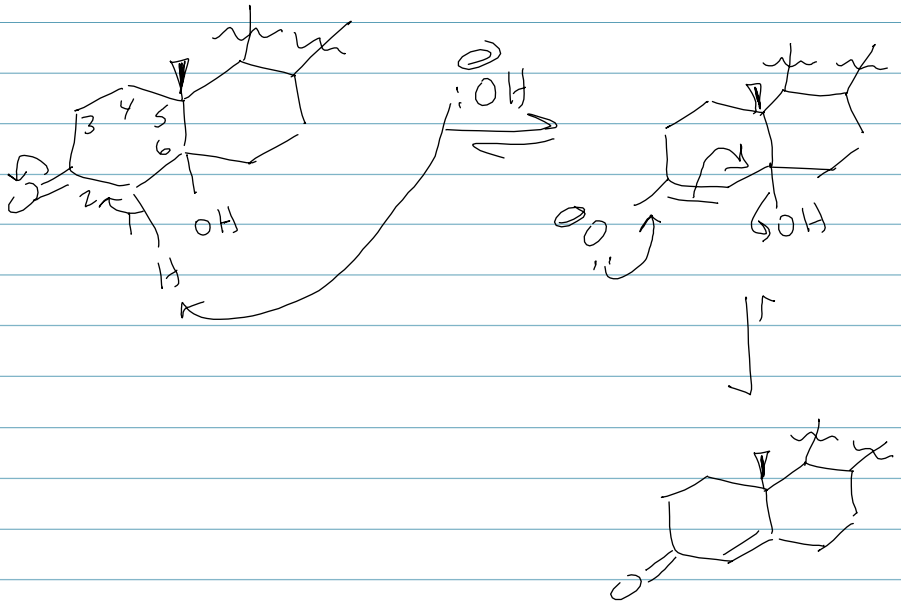






13





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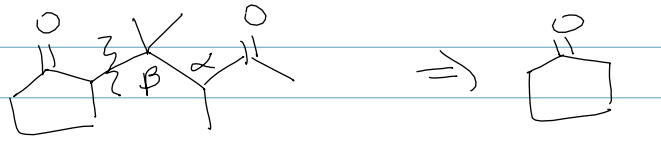
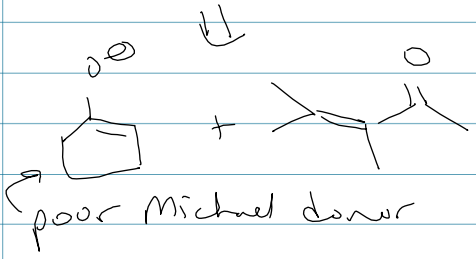
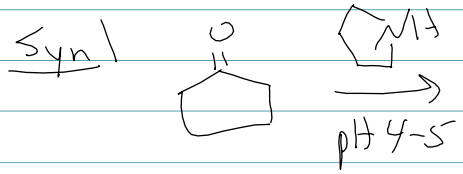
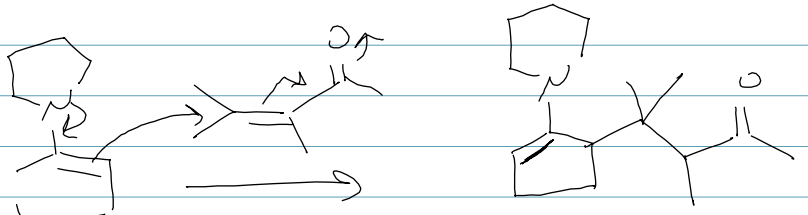
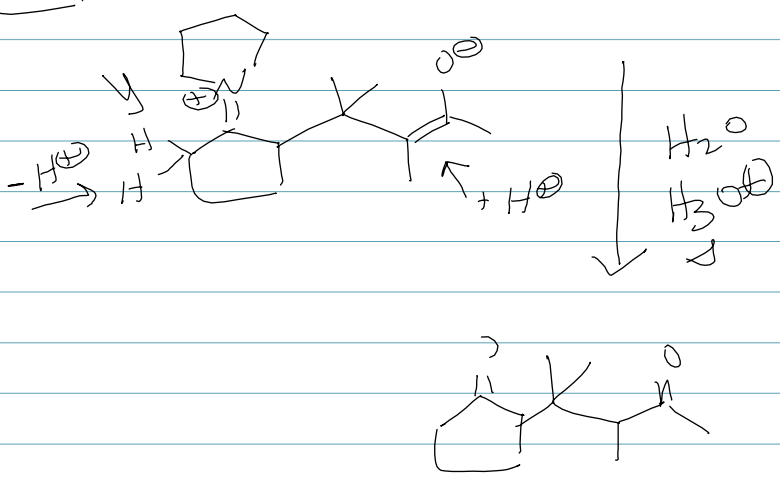


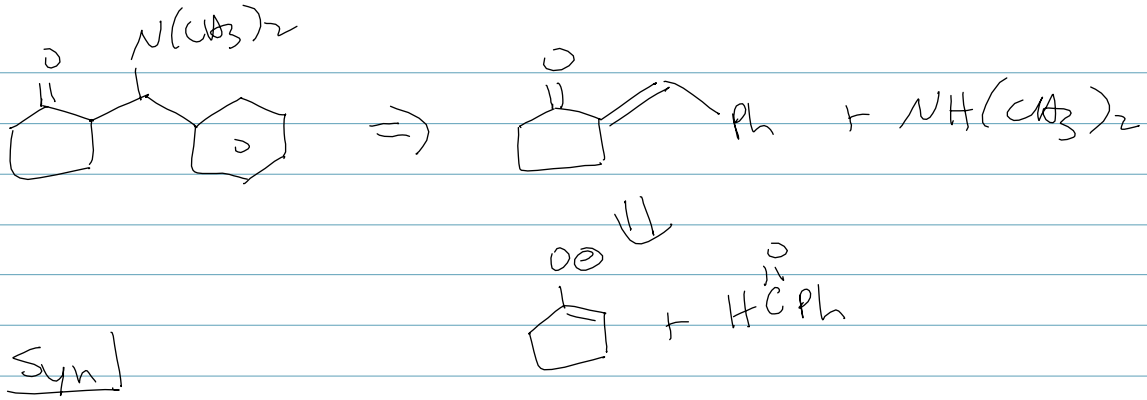


poor Michael donor

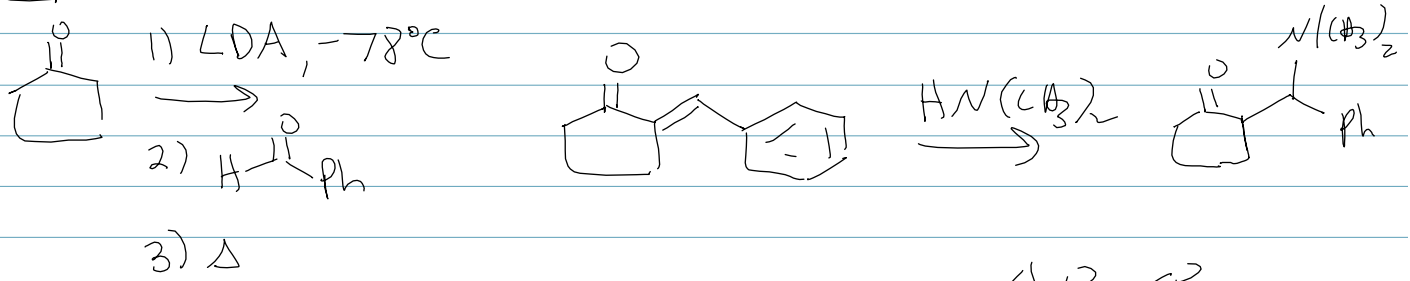


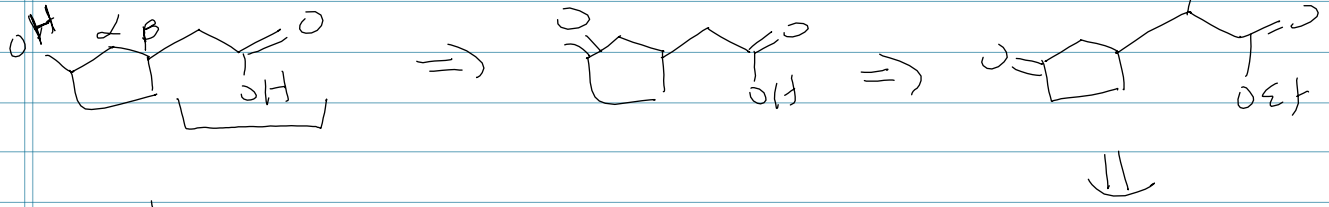






Synl





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