

Chemistry 172Q
February 22, 2005

Exam 2

1 _____/30

2 _____/15

3 _____/15

4 _____/35

5 _____/30

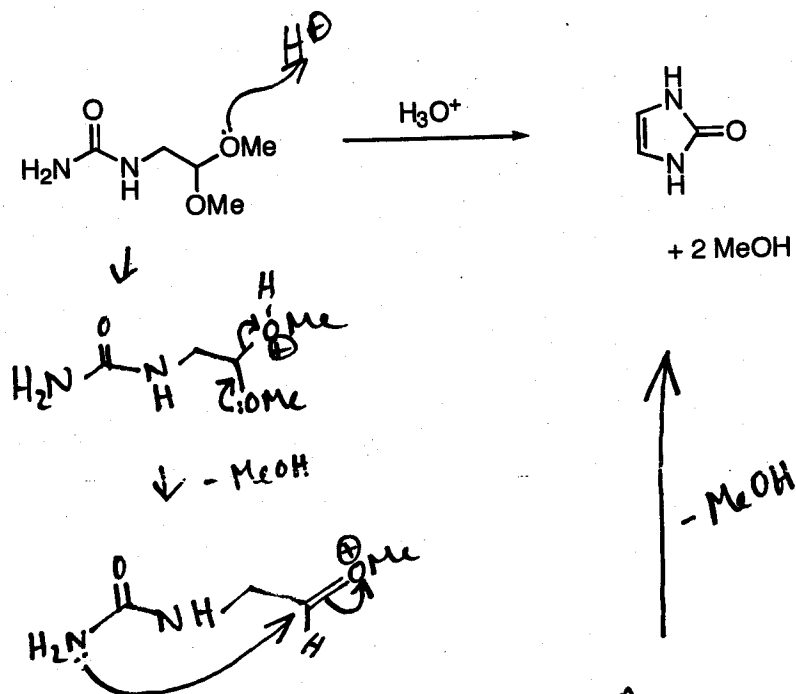
Total _____/125

NAME

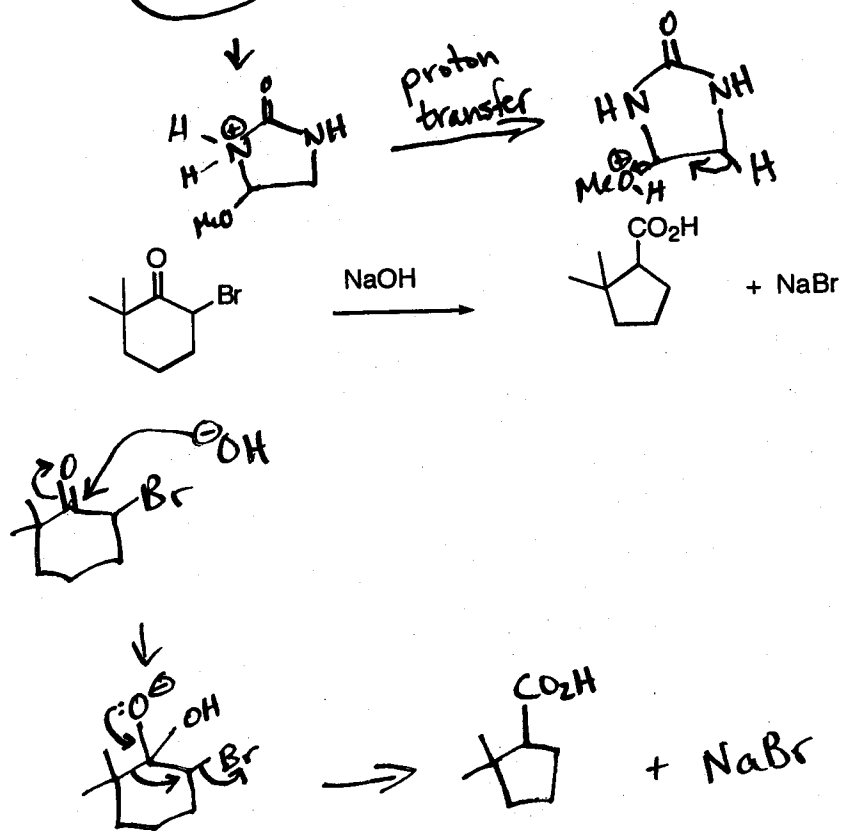
Answer Key

Propose plausible mechanisms for the following reactions.

a.

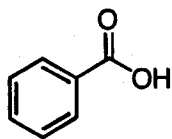


b.

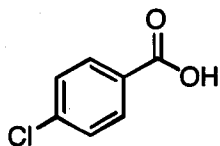


(30 points)

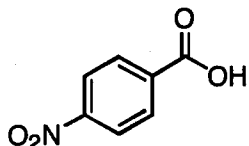
Assign the following pKa values (0.65; 3.43; 3.98; 4.37; 4.47) to the compounds below.



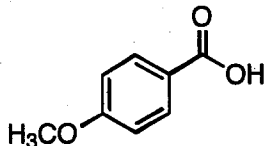
4.18



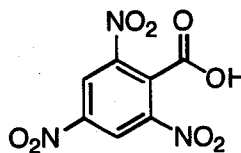
3.98



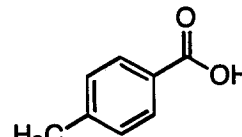
3.43



4.47



0.65

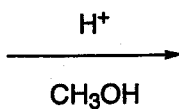
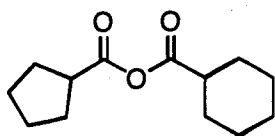


4.37

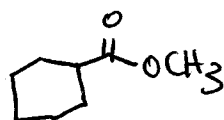
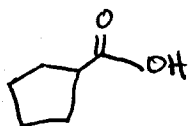
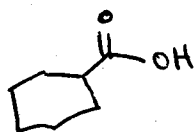
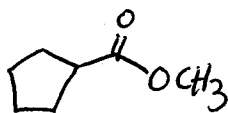
(15 points)

4. Give structures for the missing reagents, intermediates, or products.

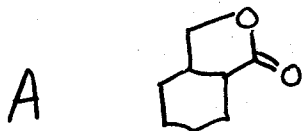
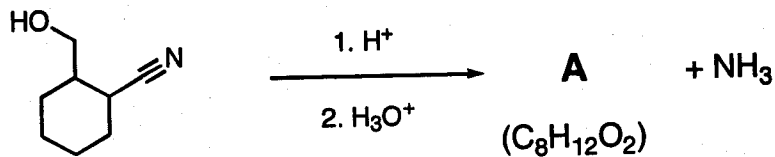
a.



give all products you would expect to observe.

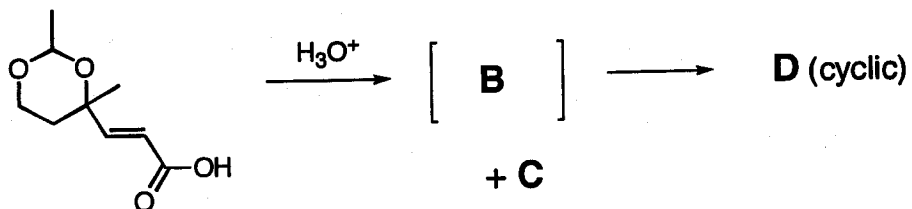


b.

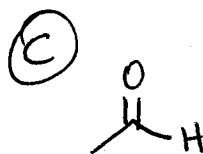
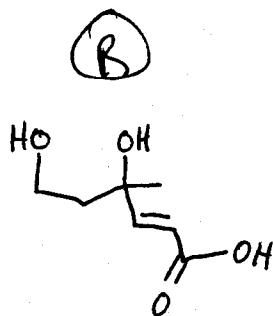


12

c.



(hint: the double bond is *trans*, not *cis*.)



(35 points)