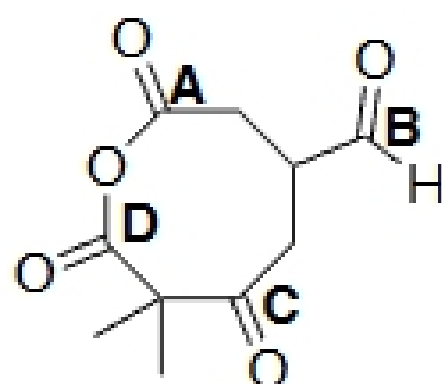


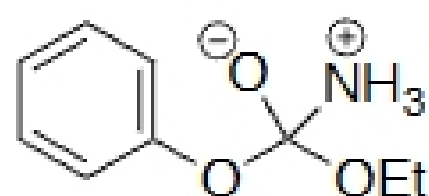
CHEM 343, Quiz 7

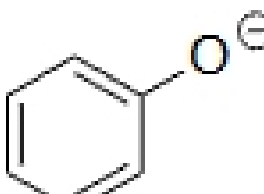

1. If one equivalent of a nucleophile were added to the molecule below, where would it add?



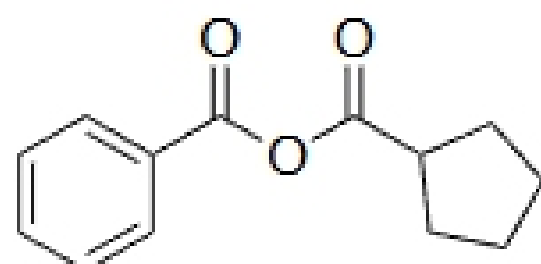
- a. A   b. B   c. C   d. D

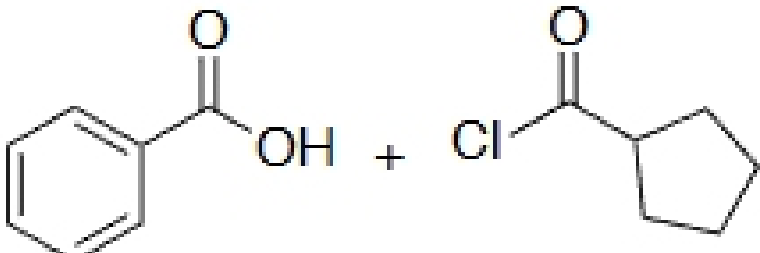
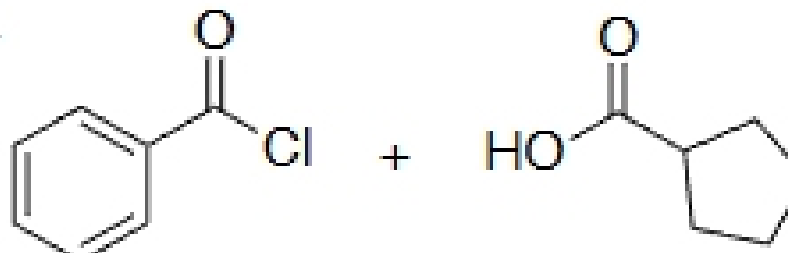
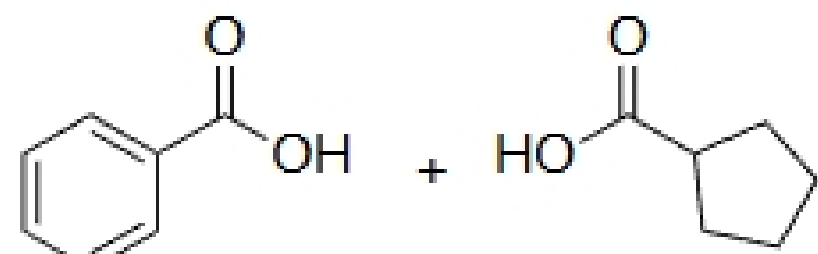
2. Given the tetrahedral intermediate below, what will be the leaving group?



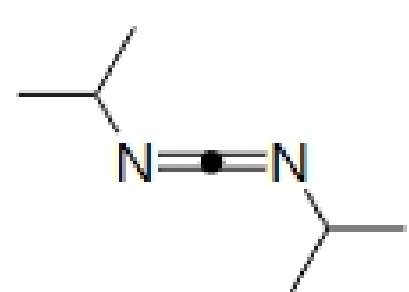
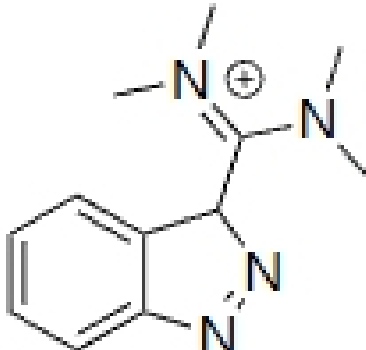
- a.    b. NH<sub>3</sub>   c.    d. O<sup>2-</sup>

3. To make the anhydride below, which set of starting materials could be used?

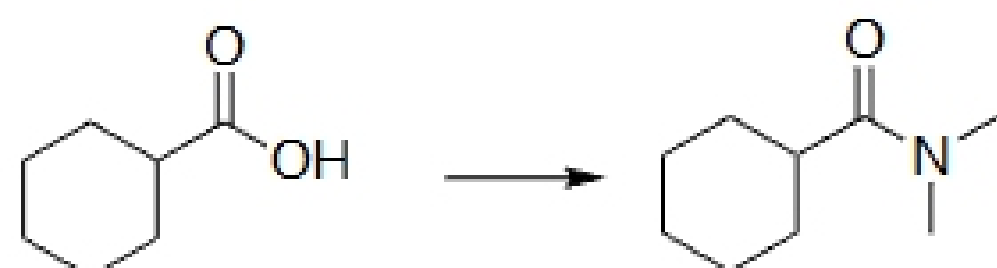


- a.    b. 
- c.    d. a or b only   e. a, b, or c

4. Which of the following could be used to replace DCC?

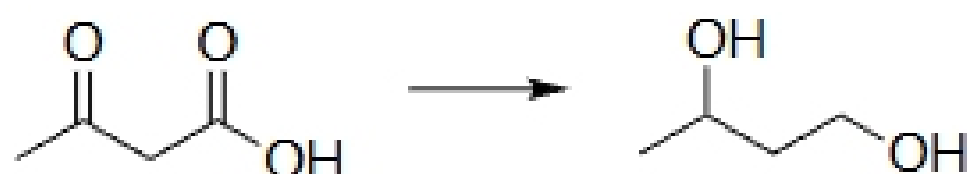
- a. H<sub>2</sub>SO<sub>4</sub>   b.    c.    d. b and c   e. none of these

5. How could the reaction below be completed?



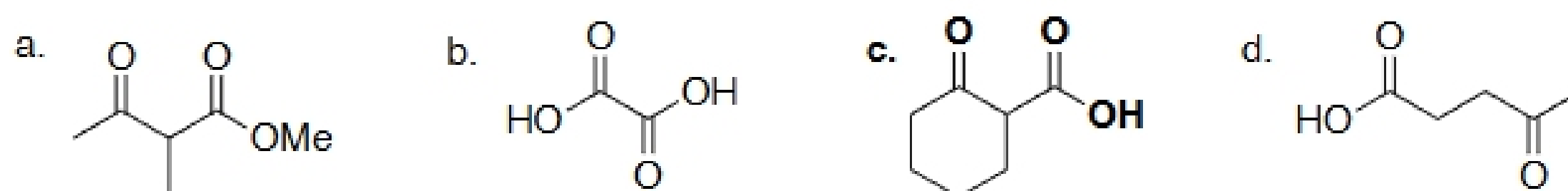
a. DCC,  $\text{NHMe}_2$    b. 1.  $\text{SOCl}_2$ , pyridine 2. excess  $\text{NHMe}_2$    c.  $\text{H}^+$ , excess  $\text{NHMe}_2$    **d. a and b**   e. a, b, and c

6. How many equivalents of LAH does the reaction below require?

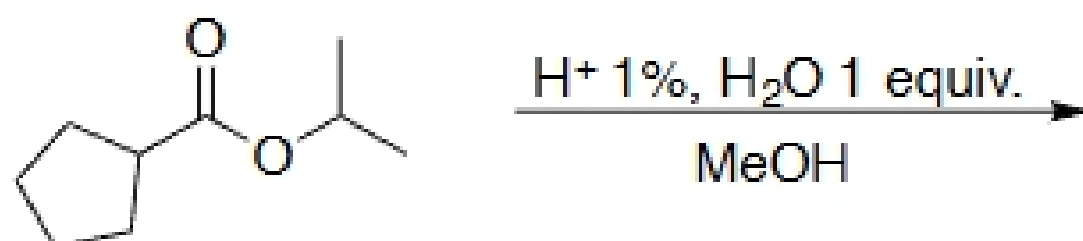


a. 0.75   **b. 1**   c. 2   d. 3

7. Which of the following could undergo a decarboxylation?

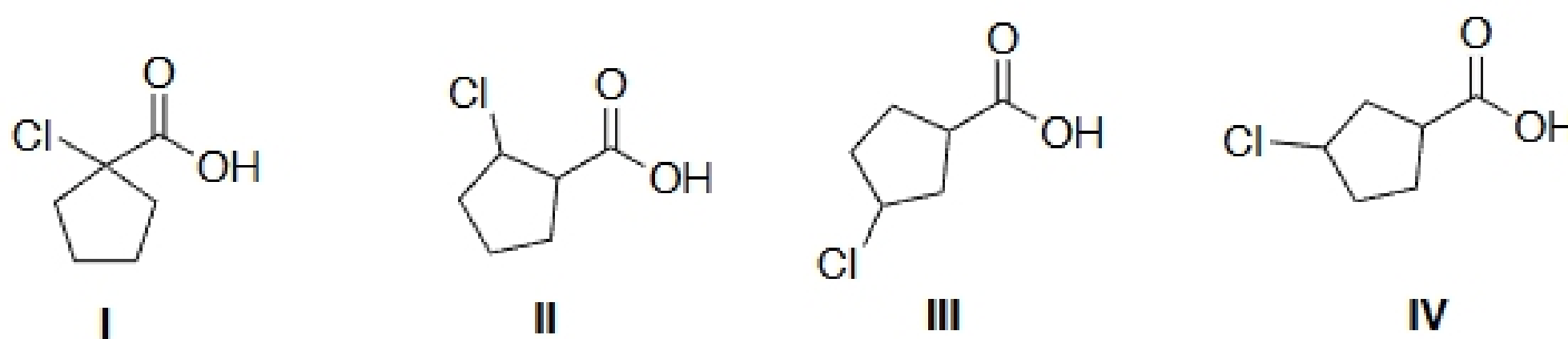


8. If the reaction below were performed under the given conditions, what would be the predominant product?



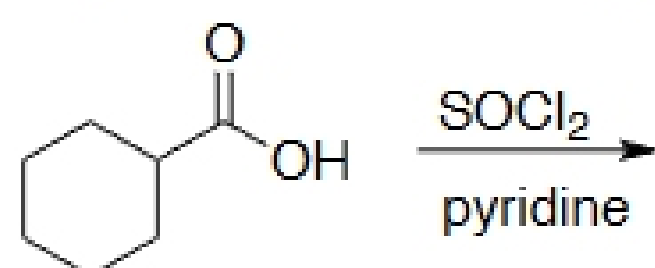
a. a carboxylic acid   **b. a methyl ester**   c. an isopropyl ester   d. a protonated ester

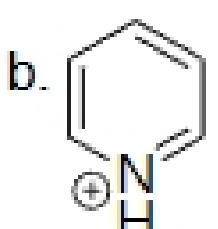
9. Put the following in order of increasing acidity:



a.  $\text{III} < \text{II} < \text{IV} < \text{I}$    **b.  $\text{III} < \text{IV} < \text{I} < \text{II}$**    c.  $\text{I} < \text{II} < \text{III} < \text{IV}$    d.  $\text{I} < \text{II} < \text{IV} < \text{III}$

10. Which is not a product of the following reaction?



a.  $\text{SO}_2$    b.   $\text{Cl}^-$    **c.  $\text{H}_2\text{O}$**    d. all of these are products of the reaction