## Chemistry 2542

## Fall 2012

## Quiz 3

(25 points)

Printed Name (*Last*, First)

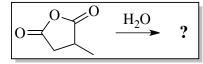
Good Luck!

## **1**. (3) Circle the correct **IUPAC name** of the following compound:

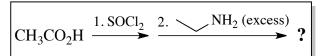
2. (5) Draw *line-angle* formula of the **product** in the following reaction (no partial credit):

+ CH<sub>3</sub>OH

**3.** (6) Circle the **major product** in each of the following reactions (3 pts each):

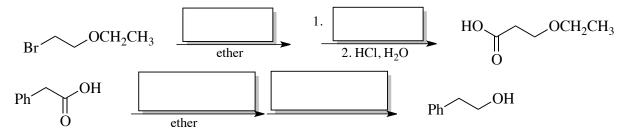


2-methylpentanoic acid 2-methyl butanoate 4-oxo-2-methylbutanoic acid 2-methylcyclopentanecarboxylic acid 2-methylbutanedioic acid

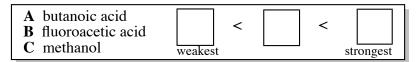


*N*-methylacetamide ethyl acetate *N*-ethyl acetate propanoyl chloride *N*-ethylacetamide methyl acetate

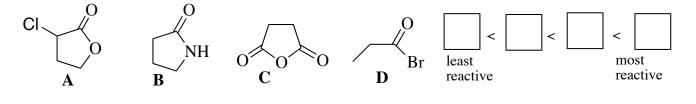
4. (4) Place the reagents on the arrow that are required to perform the following synthesis (1 pt each):



**5.** (3) Arrange the following compounds in order of increasing **acidity** (put letters in the box; 1 pt each box):



**6.** (4) Arrange the following compounds in order of reactivity for **nucleophilic acyl substitution reaction** (put letters in the box; 1 pt each box):



Overall Score: \_\_\_\_\_