

# Chem 2320

## Honorary Homework 3 (due 04/22/2003, 5:30 pm)

### Cover Page

Name: \_\_\_\_\_ (Please **print**)  
First Last

Score: /20

I. Propose a multi-step synthetic scheme (route) for the preparation of your designated compound. Feel free to use any reagents, for example, Lewis acids, catalysts, reductive agents or oxidative agents described in your textbook or in the lecture for your synthesis. You can **only** use the available starting material for your reactions. However, you can use any reagents to convert the given starting material into the compound you need. Let me know if you think you need other starting material.

II. **Staple** and turn in the cover page, the page with your designated compound, and the pages of your synthesis and mechanisms.

Available starting material:

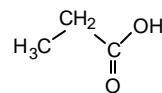
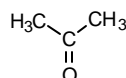
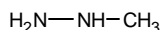
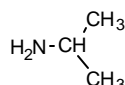
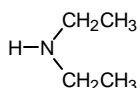
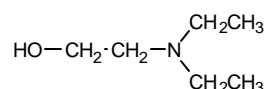
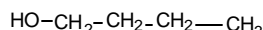
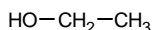
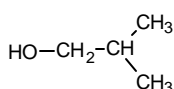
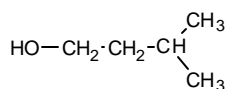
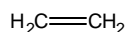
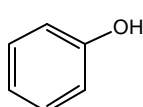
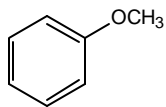
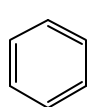
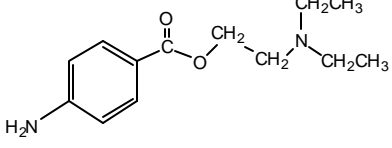
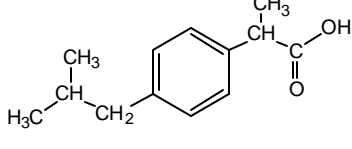
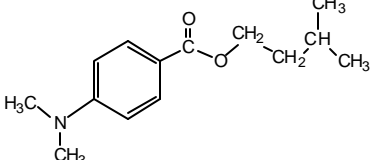
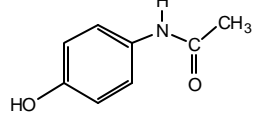
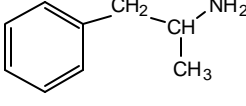
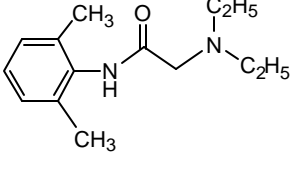
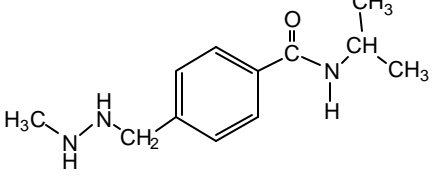
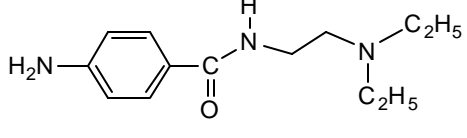
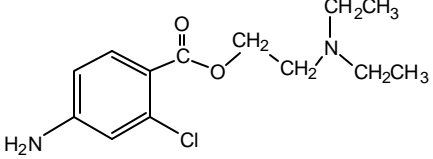
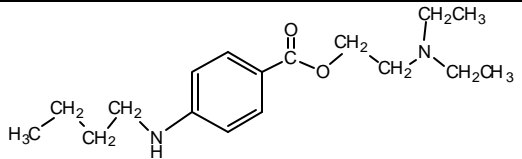
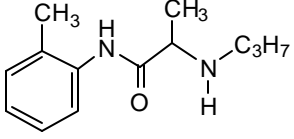


Table 1

Compound Number	Designated compound
1	<p style="margin-left: 100px;"><i>N,N</i>Diethyl-<i>m</i>-toluamide (DEET) Insect repellent</p>

2	 <p>Procaine (Novocaine) Anesthetic</p>
3	 <p>Ibuprofen (Motrin)</p>
4	 <p>Padimate A Sunblock</p>
5	 <p>Acetaminophen (Tylenol)</p>
6	 <p>Amphetamine</p>
7	 <p>Lidocaine (Xylocaine) antiarrhythmic</p>
8	 <p>Procarbazine (Matulane) MAO inhibitor against Hodgkin's disease</p>
9	 <p>Procainamide (Pronestyl) antiarrhythmic</p>
10	 <p>Chloroprocaine (Nesacaine) Anesthetic</p>

11	 <p>Tetracaine (Portocaine) Anesthetic</p>
12	 <p>Prilocaine (Citanest) local anesthetic</p>