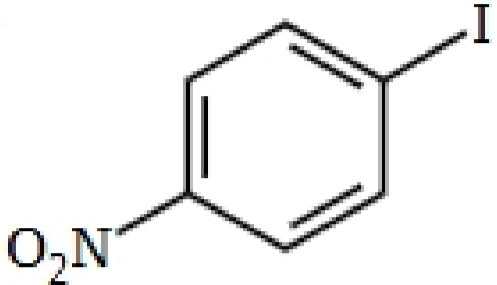
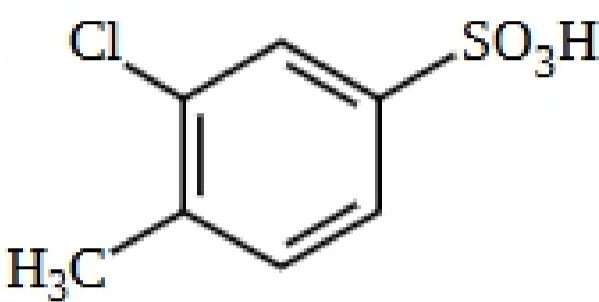
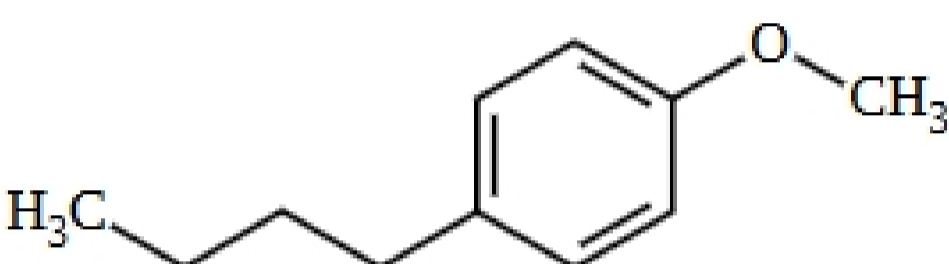
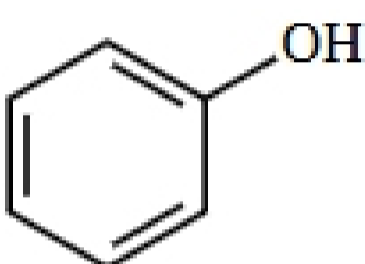


CH341, Summer 2010, HW Chapter 17, Due July 23, Noon

1. Complete the following table. Draw the major organic product of the reactions of each starting material with each reagent. If both ortho and para products should form, draw only the para. If no reaction will occur, write "No Reaction", and briefly explain your reasoning.

Reagent	Br ₂ , FeBr ₃	HNO ₃ , H ₂ SO ₄	SO ₃ , H ₂ SO ₄	$\begin{array}{c} \text{Cl} \\ \\ \text{H}_3\text{C}-\text{CH}-\text{CH}_3 \\ \text{AlCl}_3 \end{array}$	$\begin{array}{c} \text{O} \\ \\ \text{AlCl}_3-\text{C}-\text{Cl} \\ \\ \text{C}_6\text{H}_5 \end{array}$
Starting Material					
$\begin{array}{c} \text{:O:} \\ \\ \text{H}_3\text{C}-\ddot{\text{N}}-\text{C}-\text{CH}_3 \\ \\ \text{C}_6\text{H}_5 \end{array}$					
$\begin{array}{c} \text{:O:} \\ \\ \text{:O}=\text{C}-\ddot{\text{N}}(\text{CH}_3)_2 \\ \\ \text{C}_6\text{H}_5 \end{array}$					
$\begin{array}{c} \text{:F:} \\ \\ \text{C}_6\text{H}_5 \end{array}$					
$\begin{array}{c} \text{:F:} \\ \\ \text{C}_6\text{H}_5-\text{C}-\text{F:} \\ \\ \text{:F:} \end{array}$					
$\begin{array}{c} \text{H}_3\text{C}-\text{CH}_2 \\ \\ \text{C}_6\text{H}_5-\text{C} \\ \quad \\ \text{CH}_3 \quad \text{CH}_3 \end{array}$					

2. How would you synthesize each of the following products from the indicated starting materials, plus any other reagents?

Product	Starting Material
a. 	Benzene
b. 	Benzene
c. 	

3. Draw a reasonable arrow-pushing mechanism for the following reaction. Show all important resonance forms.

