Names: \_\_\_\_\_

1.

2.

Introduction to Organic Synthesis (Methyl salicylate: Prelab I	T)
Complete the following information. O O O O O O O O O O O O O O O O O O O	
Molecular	
Formula	
Molar	
Mass	
Density	
m.p. <sup>o</sup> C	
b.p. <sup>O</sup> C	
Calculate the relative amounts (g) of 20. mmoles of salicylic acid and 20. mmoles of aspi and the amount (g) with corresponding moles of 5.0 mL of acetic anhydride.	rin,
Mass (g)	
moles	
Circle the limiting reagent in the reaction.	
What is the molecular formula of digitoxigenin, a component of digitalis?	

Draw a line structure for for digitoxigenin and in a few words describe the biological activity of digitalis.

3. Name the acid and name the alcohol that would be reacted to produce each of the following esters.

Raspberries:

Acid:

Alcohol:

- 4. Draw structures for the ester, and the acid and the alcohol that would be reacted to produce the ester.
  *Bananas:* n-pentyl acetate Acid: Alcohol:
- 5. The following ester gives apricot is flavor. Name the ester. \_\_\_\_\_



6. Draw the structure of the product produced in the acid catalyzed reaction of phenol with salicylic acid.

7. Describe what would be expected in the differences between the IR spectrum of the reaction mixture of the reactants versus the products. That is, what key peaks are expected to be observed in each and what disappearance(s) or appearance(s) would indicate that the reaction had occurred?