

# Chem 51A – SSI 2013

## Discussion 2 Worksheet

**Dr. Renee Link**

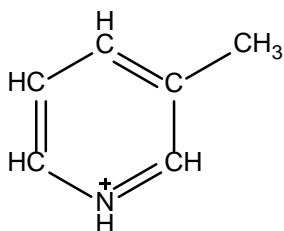
This worksheet will focus on concepts to be discussed or already discussed, for Chapter 1. Those concepts being 1) Resonance Structures 2) Skeletal Structures and 3) Acids/Bases.

On a practical note, we **STRONGLY** recommend you work on these sheets using erasable pencil.

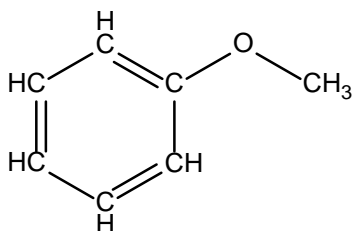
### 1. Resonance Structures

Draw valid resonance structures for the following molecules and label the structures as major or minor contributors. Use curved arrows to show electron movements and double-headed resonance arrows where needed. (Note: Lone pairs are not shown...draw them in where they are needed.)

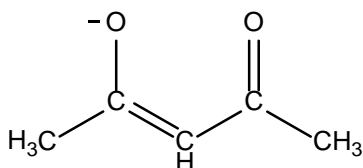
A.



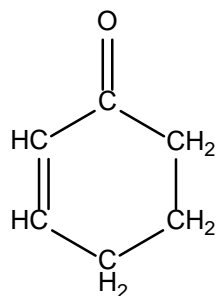
B.



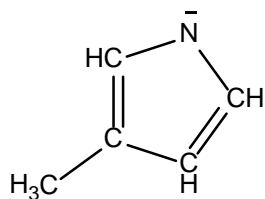
C.



D.



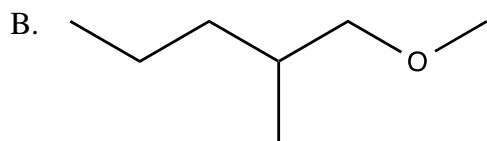
E.

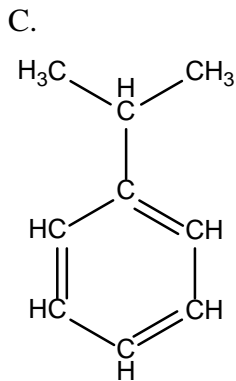


## 2. Drawing Organic Structures

For each of the following, the condensed structure, Lewis structure, or skeletal structure is shown. Provide the other two.

A.  $\text{CH}_3\text{CH}_2\text{OCH}_3$





### 3. Acids/Bases

- A. What is the Bronsted-Lowry definition of an acid?
- B. Of a Bronsted-Lowry base?
- C. What is the Lewis definition of an acid?
- D. Of a Lewis base?
- E. Give an example of each of the above.
- F. Rank the hydrogens shown below from least acidic (1) to most acidic (6):

