

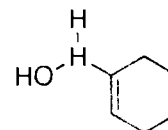
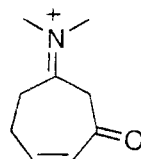
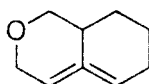
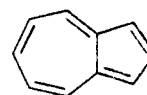
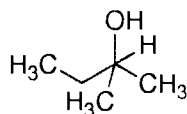
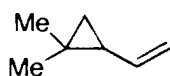
Chem 109A  
Prof. Bode  
Fall 2005, MWF 11-12

Name (1 pt) \_\_\_\_\_

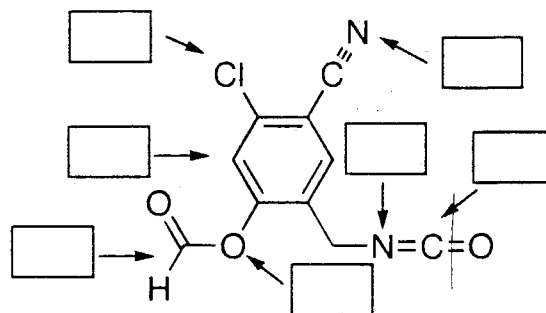
Perm No. \_\_\_\_\_

**Quiz 1** (33 points)

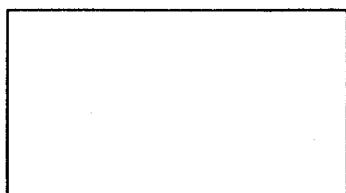
1. Circle the structures representing permissible organic molecules under the rules of bonding and connectivity covered in this course? (6 points)



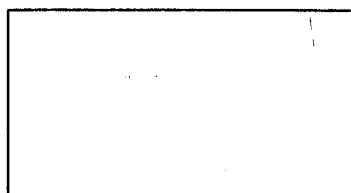
2. Identify the hybridization (i.e.  $sp^3$ ,  $sp^2$ , etc.) of each of the indicated atoms in the following molecule. (7 points)



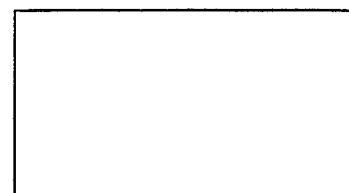
3. Clearly draw the following compounds using line or wedge bonds showing the correct geometry of each carbon atom. (9 points)



(a)  $CH_4$



(b)  $H_2C=CH_2$



(c)  $HC\equiv N$

4. Draw two resonance structures for the following compound. (10 points)

