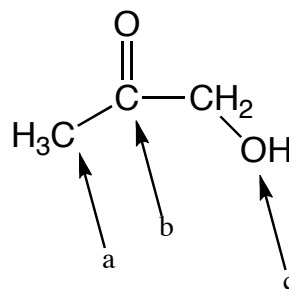


Recitation Week 2

1/23/13

Problems. You may work on these individually or in groups, and then I will go over them.



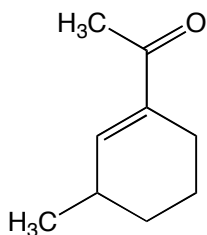
1. Fill in the table regarding the atoms marked a-c in the above molecule:

Atom	hybridization	geometry
a		
b		
c		

In total, the above molecule has _____ σ bond(s) and _____ π bond(s).

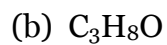
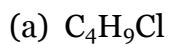
2. Draw the ethylene molecule, C_2H_4 , showing how the orbitals overlap to form the double bond.

3. What is the molecular formula of this compound?



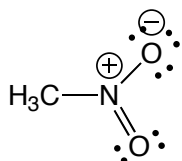
[ans: $C_9H_{14}O$]

4. In each case, draw two constitutional isomers with the formula given:

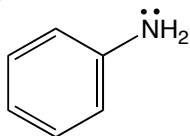


5. Draw **stable** resonance structures for the following:

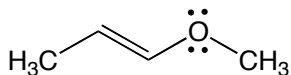
(a)



(b)

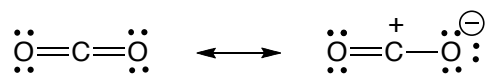


(c)



5. In each case, which resonance structure is more stable and thus contributes more to the hybrid?

(a)



(b)

