1. a. Indicate the hybridization of each of the indicated atoms (1 pt. each box):

   - sp
   - sp^2
   - sp^3
   - sp^3
   - sp^2
   - sp^3
   - sp^3

b. How many pi (π) bonds are found in the molecule above? (1 pt)  

   - 5

c. Which is the most electronegative atom in the above molecule? (1 pt)  

   - O

2. Assign a formal charge to the indicated atoms (1 pt each)

   - +1
   - -1
3. Draw two resonance structures for the following molecule: (2 pts each box):

4. Put the following molecules in order of increasing acidity of the highlighted H. (4 pts.)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCl</td>
<td>OH</td>
<td>COOH</td>
<td>COOH</td>
<td>COOH</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

less acidic (higher pKa) | B | C | D | A | more acidic (lower pKa)