1. (12; 4 pts each) In the provided boxes, draw one, the most important resonance contributor for each of the following species. (Make sure to show non-bonding electrons and formal charges, when appropriate)

   ![Resonance Contributors]

2. (3) What is the approximate C-C-C bond angle in propyne, CH₃C=CH

   109.5°  180°  120°  90°  60°  160°  140°

3. (4) Circle the structure of the compound that has dipole moment μ = 0 D:

   HCN  H₂CO  BF₃  CHCl₃  CF₂Br₂  CH₃OCH₃  H₂O  NH₃

4. (3) Circle the structure of the compound that has the functional group of a ketone:

   CH₃COOH  CH₃CO₂CH₃  CH₃OCH₃  CH₃COCH₃  CH₃OCH₂CHO  CH₃CONH₂

5. (3) Circle the structure of the compound that has the most polar covalent bond:

   H₂O  HF  CH₃Li  BH₃  CH₃F  NH₃  NF₃  F₂O  F₂