Weiss Peer Tutor Worksheet 1

1) Use curved arrows to draw resonance structures of the following compounds and circle which one is the more stable structure.

a)

b)

2) Identify the formal charge of any charged atoms in the compound. Drawing out the structure may help identify which atom has a charge.

a) CH₃CHOH

b) CH₂CHCH₂

3) Rank the following atoms in order of increasing electronegativity: Fluorine, Nitrogen, Carbon, and Oxygen

_________ < _________ < _________ < _________

4) Draw the skeletal structure of CH₃COCH₃. Bonus: what is the name of this compound?
5) Draw the skeletal structure for the following molecules:

a) $\text{CH}_3\text{(CH}_2\text{)}_4\text{CH}_3$

b) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_3$

c) $\text{CH}_3\text{COCH}_2\text{CH}_2\text{CH}_3$

6) Going left to right across the periodic table, electronegativity ______________ and going down, it ______________. (self-generated)

7) Rank the bond of each molecule from lowest to highest strength.

$$\text{HC≡CH} \quad \text{H—Br} \quad \text{H—OCH}_3$$

8) List the bond angle portrayed of each molecule and its geometry.

$$\text{O==C==O} \quad \text{F} \quad \text{H—C—H}$$