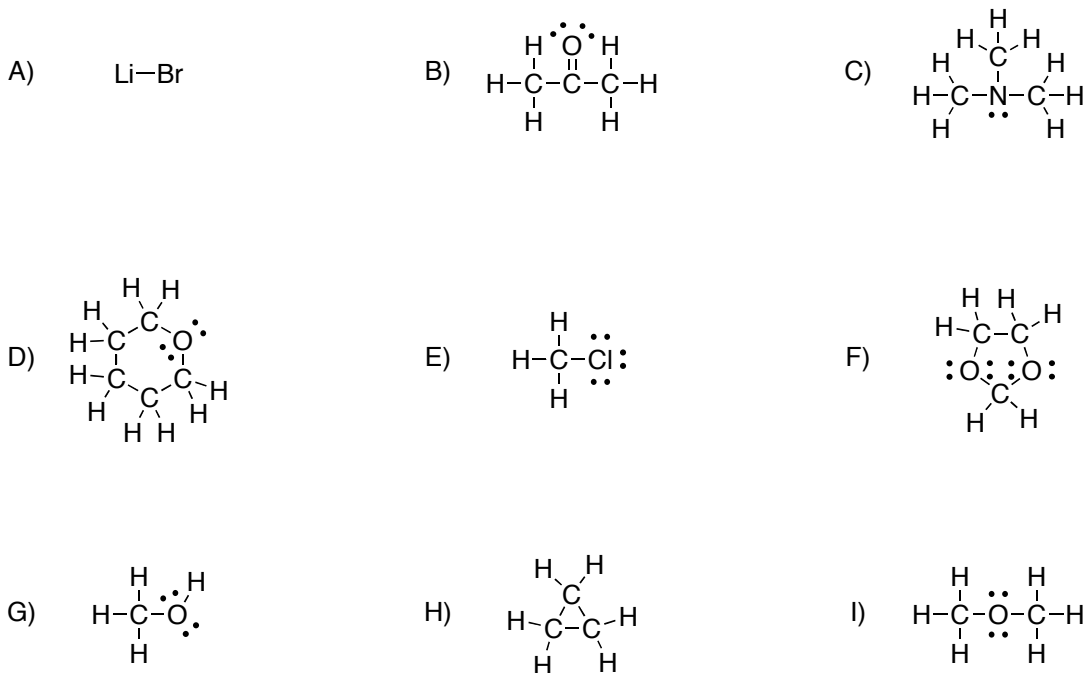


Name _____
 Student Number _____

1) (18 pts) Draw Lewis Dot structures for the following atoms:

- | | | |
|-------|-------|------|
| A) H | B) C | C) F |
| D) Ge | E) P | F) N |
| G) Ar | H) Mg | I) O |

2) (18 pts) Using partial charge notation (i. e. $\delta+$ and $\delta-$), show the polarization of the polar covalent bonds (not including bonds to hydrogen) in the following molecules. If there are no polar covalent bonds, simply write "NONE" next to the molecule.



5) Briefly explain the three principles we use to determine ground-state electron configurations.

Extra Credit: (10 pts) Many reactions involve a change in hybridization of one or more atoms in the starting material. In each case, identify the atoms in the organic starting material that change hybridization and indicate what the change is. We will examine these reactions in more detail later in the course.

