1) Draw an energy diagram for the ground-state electron configuration of sulfur (S, atomic # = 16)?

2) Draw the Lewis Dot representation of Silicon.

3) How many valence electrons are found in a molecule with a molecular formula of HNO₃.

4) Draw the Lewis structure for HNO₃.

5) Using "partial charge" notation, show the polarization of a B-F bond.

6) Using "partial charge" notation, show the polarization of an C-O bond

7) (2 pts) Assign formal charges to any charged atoms in the following molecule:

   \[ \text{\begin{array}{c} H \\ N \\ H \\ H \\ H \\
   \end{array}} \]

8) (2 pts) Assign formal charges to any charged atoms in the following molecule:

   \[ \text{\begin{array}{c} H \\ H_3C - C \cdot - CH_3 \\
   \end{array}} \]