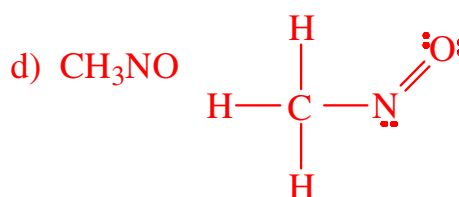
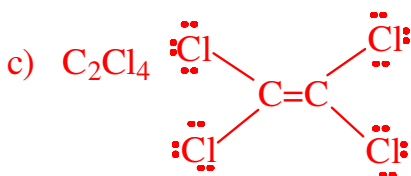
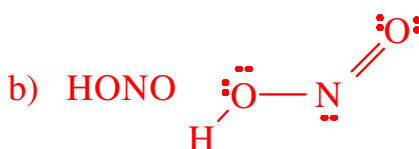
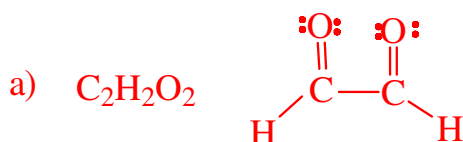
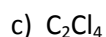
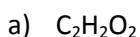


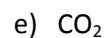
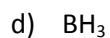
Chapter 5 Problem Set

CHM 161

1. Propose Lewis Structures for the following formulas. Use lines to indicate covalent bonds and show all lone pairs of electrons.

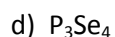
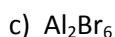
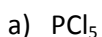


2. Predict the geometry around the central element in the following:



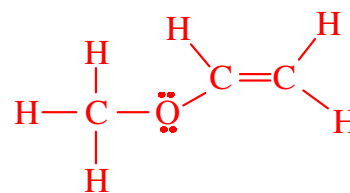
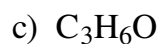
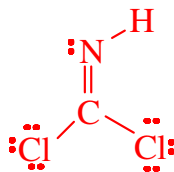
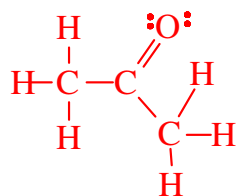
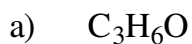
- a) tetrahedral b) bent shape (tetrahedral geom.) c) pyramidal (tetrahedral geom.)
d) trigonal planar e) linear

3. Name the following binary molecular compounds:



- a) phosphorous pentachloride b) boron trifluoride c) dialuminum hexabromide
d) triphosphorous tetraselenide e) xenon tetraiodide

4. Fill in the bonds and lone pair of electrons in the following molecules. *In a), there are two correct answers:*



5. *Approximately*, what is the

a) C-C-C bond angle in 4a)? 120°

b) H-N-C bond angle in 4b)? 120°

c) C-O-C bond angle in 4c)? 109°