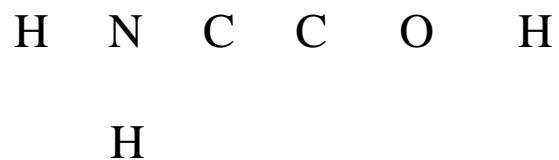


1 (12 points in total for 1a + 1b). For each of the following molecules, draw in their correct Lewis structures.

1a (6 points for this part).



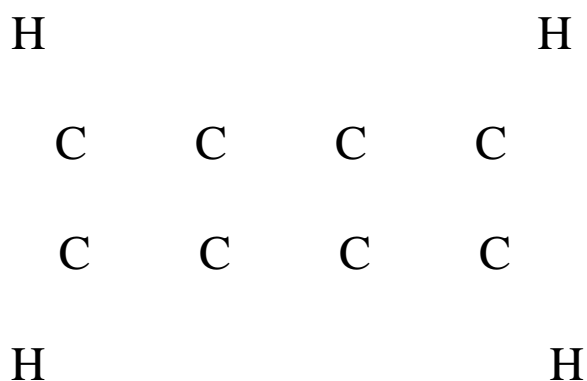
1b (6 points for this part).



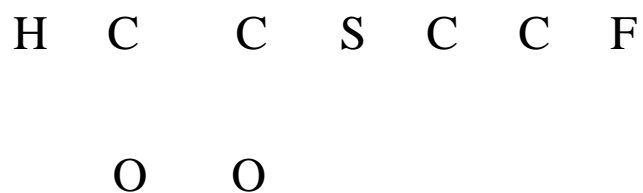
/12

2 (12 points in total for 2a + 2b). For each of the following molecules, draw in their correct Lewis structures and then predict the bond lengths, bond angles, and the hybridizations.

2a (6 points for this part).



.....
2b (6 points for this part).



/12

3 (12 points in total for 3a + 3b). For the following molecular formulae, draw three (3) of the structural isomers. Be sure that you show **all** atoms and bonds for each structural isomer.

3a (6 points for this part).



3b (6 points for this part).



/12

4 (14 points in total for 4a + 4b). For the following sections, use a combination of text and diagrams to clearly explain your answers. Where appropriate use example(s) to illustrate your point(s).

4a (6 points for this part). Discuss the difference between a Covalent and an Ionic Bond.

4b (8 points for this part). Discuss the Valence Shell Electron Pair Repulsion Theory and its use in explaining molecular structures.