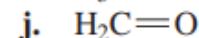
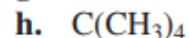
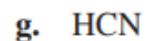
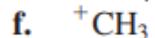
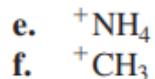
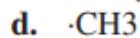
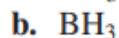
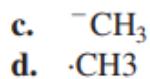
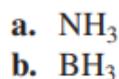
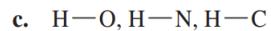
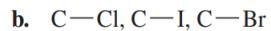
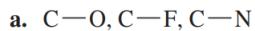


1. What is the hybridization of all the atoms (other than hydrogen) in each of the following?

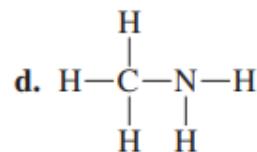
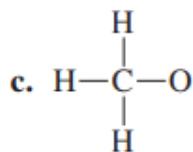
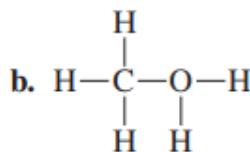
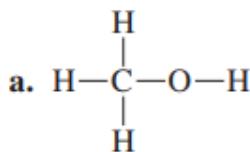


a. _____ c. _____ e. _____ g. _____ i. _____
b. _____ d. _____ f. _____ h. _____ j. _____

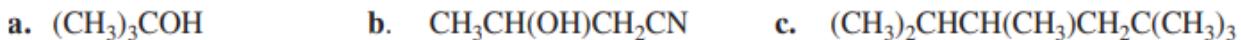
2. Rank the bonds from most polar to least polar.



3. Draw the missing lone-pair electrons and assign the missing formal charges for the following:



4. Draw a Lewis structure for each of the following:



5. Which of the following contain(s) polar covalent bonds?

- A) NH_3
- B) Na_2O
- C) H_2
- D) KF
- E) both A and C

6. Which of the following covalent bonds has the largest dipole moment?

- A) C-C
- B) C-H
- C) C-O
- D) H-N
- E) H-F

7. Which of the following molecules does not exhibit a net dipole moment of zero?

- A) CO_2
- B) CH_4
- C) CCl_4
- D) H_2O
- E) SO_3