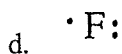
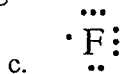
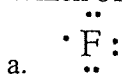


Chem IH Quiz: Bonding: 35 points

Multiple Choice : 2 points each

- C 1. An attractive force between nuclei and electrons that holds atoms together in a chemical compound is called a(n)
a. dipole. c. chemical bond.
b. Lewis structure. d. London force.
- D 2. The electrons involved in the formation of a chemical bond are called
a. dipoles. c. Lewis electrons.
b. s electrons. d. valence electrons.
- D 3. As atoms bond with each other, they
a. increase their potential energy, thus creating less-stable arrangements of matter.
b. decrease their potential energy, thus creating less-stable arrangements of matter.
c. increase their potential energy, thus creating more-stable arrangements of matter.
d. decrease their potential energy, thus creating more-stable arrangements of matter.
- A 4. If two covalently bonded atoms are identical, the bond is
a. nonpolar covalent. c. dipole covalent.
b. polar covalent. d. coordinate covalent.
- A 5. The greater the electronegativity difference between two bonded atoms, the greater the percentage of ____ in the bond.
a. ionic character c. metallic character
b. covalent character d. electron sharing
- B 6. The B—F bond in BF_3 is
a. polar covalent. c. nonpolar covalent.
b. ionic. d. metallic.
- D 7. A neutral group of atoms held together by covalent bonds is a
a. molecular formula. c. polyatomic ion.
b. chemical formula. d. molecule.
- D 8. The ions in most ionic compounds are organized into a
a. molecule. c. polyatomic ion.
b. Lewis structure. d. crystal lattice.
- A 9. The lattice energy is a measure of the
a. strength of an ionic bond. c. strength of a covalent bond.
b. strength of a metallic bond. d. net charge on a crystal.
- C 10. Compared with ionic compounds, molecular compounds
a. have higher boiling points. c. have lower melting points.
b. are brittle. d. are harder.
- D 11. Ionic compounds are brittle because the strong attractive forces
a. allow the layers to shift easily.
b. cause the compound to vaporize easily.
c. keep the surface dull.
d. hold the layers in relatively fixed positions.

A 12. Which of the following is the Lewis dot diagram of the element fluorine (F)?



A 13. How does a covalent bond differ from an ionic bond?

- An ionic bond is the transfer of electrons and a covalent bond is a sharing of electrons.
- An ionic bond involves 2 electrons and a covalent bond involves 4 electrons.
- An ionic bond is usually between two metals and a covalent bond is usually between two nonmetals.
- Ionic bonds are usually found in acids and covalent bonds are usually found in bases.

C 14. A bond is classified as nonpolar covalent if the difference in the electronegativities between the 2 atoms is

- 2.1 or more.
- between 0.5 and 2.
- less than 0.4.
- less than zero.

C 15. Which of the following compounds will form electrolytes when dissolved in water?

- $\text{C}_6\text{H}_{12}\text{O}_6$
- $\text{C}_{12}\text{H}_{22}\text{O}_{11}$
- MgCl_2
- CO_2

Port Answer - 5 points

16. List the names of the diatomic elements.

Hydrogen

Oxygen

Nitrogen

Fluorine

Chlorine

Bromine

Iodine