SCH3U Bonding Quiz 1 CLASS SET
COMPLETE CIRCLED QUESTIONS ONLY ON YOUR OWN PAPER

Multiple Choice

____ 1. A single covalent bond is formed when
   a. two atoms share two electrons
   b. two atoms both lose electrons
   c. one atom gains electrons from the other atom
   d. the electrons are passed back and forth between the two atoms

____ 2. Covalent compounds form
   a. molecules
   b. crystals
   c. polyatomic ions
   d. none of the above

____ 3. The measure of an atom's ability to attract a pair of electrons it shares with another atom in a covalent bond is known as its
   a. ionization energy
   b. electron affinity
   c. electronegativity
   d. electron attraction

____ 4. Electronegativity increases
   a. down a group and across a period
   b. down a group
   c. across a period
   d. none of the above

____ 5. The formulas of ionic compounds are explained using
   a. equal numbers of positive and negative ions
   b. a net electrical charge of zero
   c. double bonds
   d. neutral molecular entities
   e. IUPAC prefixes

Short Answer

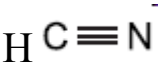
6. a. How many valence electrons would a Ga atom possess?
   b. How many bonds would you predict a As atom would obtain in a reaction?

7. Describe the formation of polar covalent bonds and the behaviour of the bonding electrons.

8. Explain, in your own words, how and why ionic bonding occurs.

9. Use an electron dot diagram of SO_2 to explain why sulfur dioxide is predicted to have one double bond, keeping in mind the possibility of coordinate covalent bonding.

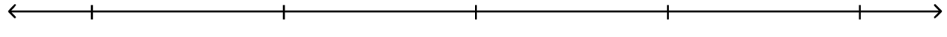
10. Use electron dot diagrams and electronegativity to explain the formula for $CaCl_2$. Show formation and final compound.

11. a. Use electronegativities to predict the type of all bonds present in  . You must show your work.
    b. Redraw HCN showing all bonds and indicate bond polarity and vectors.

12. A molecule possessing two atoms is found to have an electronegativity difference of 1.75. Examination of the molecules properties show that it is a polar covalent bond. Explain how this is possible.

13: COMPLETE NOMENCLATURE QUESTIONS PROVIDED IN CLASS.

MUST DO THIS: **DRAW THIS LINE on your answer page and indicate how confident you feel in this topic and the accuracy of your quiz answers.**
****After reviewing the answers & making your corrections, make a second mark on the line in your correction colour.**



Not Yet Getting there Got it!!