Chapter 8 - Covalent Bonding/Polarity Quiz

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. Which of the following bond is not an intermolecular force
   a. London Dispersion forces
   b. Dipole Dipole Forces
   c. Hydrogen Bonding
   d. Covalent Bonding

____ 2. Which of the forces of molecular attraction is the weakest?
   a. dipole interaction
   b. dispersion
   c. hydrogen bond
   d. single covalent bond

____ 3. What causes dipole interactions?
   a. sharing of electron pairs
   b. attraction between polar molecules
   c. bonding of a covalently bonded hydrogen to an unshared electron pair
   d. attraction between ions

____ 4. Which of the following physical property can you observe to determine the tye of IMF acting on a molecule?
   a. Boiling Point
   b. Surface Tension
   c. Polarity
   d. All of the above

____ 5. What causes hydrogen bonding?
   a. attraction between ions
   b. motion of electrons
   c. sharing of electron pairs
   d. bonding of a covalently bonded hydrogen atom with an unshared electron pair

Matching

Draw lewis dots and use VSEPR theory to determine whether the following compounds are Polar or Non Polar. (Hint - the compounds, not just the bonds)
a. Polar b. Non-Polar

____ 6. CCl_4

____ 7. NH_3

____ 8. SO_2

____ 9. H_2S

____ 10. CO_2

Identify the type of Intermolecular Force that would be present. Only answer dispersion if it is the only intermolecular force in the molecule.

a. London Dispersion Forces
b. Dipole - Dipole
c. Hydrogen Bonding

____ 11. HCl

____ 12. CO_2

____ 13. XeF_4

____ 14. NH_3

____ 15. ICl

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Answer Section

MULTIPLE CHOICE

1. ANS: D PTS: 1 DIF: L3 REF: p. 248 | p. 249
   OBJ: 8.4.1 Describe how electronegativity values determine the charge distribution in a polar molecule.
   MSC: application
2. ANS: B PTS: 1 DIF: L1 REF: p. 251
   OBJ: 8.4.2 Evaluate the strengths of intermolecular attractions compared with the strengths of ionic and covalent bonds. MSC: knowledge
3. ANS: B PTS: 1 DIF: L1 REF: p. 251
   OBJ: 8.4.2 Evaluate the strengths of intermolecular attractions compared with the strengths of ionic and covalent bonds. MSC: knowledge
4. ANS: D PTS: 1 DIF: L3 REF: p. 248 | p. 249
   OBJ: 8.4.1 Describe how electronegativity values determine the charge distribution in a polar molecule.
   MSC: application
5. ANS: D PTS: 1 DIF: L2 REF: p. 251
   OBJ: 8.4.2 Evaluate the strengths of intermolecular attractions compared with the strengths of ionic and covalent bonds. MSC: comprehension

MATCHING

6. ANS: B PTS: 1
7. ANS: A PTS: 1
8. ANS: A PTS: 1
9. ANS: A PTS: 1
10. ANS: B PTS: 1

11. ANS: B PTS: 1
12. ANS: A PTS: 1
13. ANS: A PTS: 1
14. ANS: C PTS: 1
15. ANS: B PTS: 1