Chapter 5 Test

Atoms to Minerals

Directions: For each statement or question, select the word or expression that best completes the statement or answer the question. (1pt each) Write your answer on your answer sheet.

1. Which of the following does not describe a characteristic of a mineral
    a. It is a mixture
    b. It occurs naturally
    c. It is solid
    d. It has a definite composition
2. The nucleus of an atom does NOT contain
    a. Most of the mass of the atom
    b. Protons
    c. Electrons
    d. Neutrons
3. An example of a native mineral is
    a. Halite
    b. Ice
    c. Oxygen
    d. Copper
4. Which is the most probable reason for the difference between the properties of diamond and graphite?
    a. Diamond is a silicate; graphite is composed of carbon.
    b. Diamond has weaker bonds; graphite has stronger bonds.
    c. Diamond and graphite are different structural forms of carbon.
    d. Diamond and graphite are different structural forms of silica.
5. Which of the following is not a physical characteristic determined by the arrangement of the atoms within a mineral
    a. Streak
    b. Hardness
    c. Crystal shape
    d. Cleavage
6. What type of chemical bond is formed when atoms share electrons?
    a. An ionic bond
    b. A metallic bond
    c. An isotopic bond
    d. A covalent bond

7. Which of the following statements is false?
    a. Atoms, molecules, and ions in magma are free to move around each other.
    b. As magma cools, its atoms, molecules, and ions tend to move away from each other.
    c. Many different minerals can form out of one magma mass.
    d. The rate at which magma cools affects the size of the mineral grains that form.
8. Which of the following mineral properties includes the descriptions conchoidal, splintery and irregular?
    a. Cleavage
    b. Streak
    c. Fracture
    d. Luster
9. Silicates always contain
    a. Aluminum
    b. Oxygen
    c. Quartz
    d. Iron
10. Which of the following characteristics is least useful in identifying a mineral?
    a. Cleavage
    b. Specific gravity
    c. Color
    d. Streak
11. Which of the following tests is best used to distinguish a nonmetallic mineral form a metallic mineral?
    a. Fracture, because not all minerals exhibit cleavage
    b. Acid test, because all metallic minerals react positively
    c. Streak test, because nonmetallic minerals typically streak colorless or white and metallic minerals typically streak a dark, characteristic color
    d. Specific density, because nonmetallic minerals typically have specific gravities of greater than 5 and metallic minerals typically measure about 5.
12. Many minerals have commercial uses. Name two minerals, the mineral group in which they belong and their uses. (3pts)

13. Compare and Contrast a mixture and a compound. Give an example of each to support your answer. (3pts)

14. When mineralogists are identifying minerals can they use just one method? What is the “best” method for identifying unknown minerals? Explain! Give examples if necessary. (2pts)