Physical Science Test Elements, Models of Atom and Atomic Structure (56 pts)

Multiple-Choice: Place the CAPITAL letter of the best answer on the line.(17 pts)

1._____Which scientist proposed that atoms are infinitesimal round balls, unable to be seen by the naked eye?
A. Democritus B. J. J. Thomson C. Ernest Rutherford D. Neils Bohr

2._____ Who is the person credited with the formation of the plum pudding model?
A. J. J. Thomson B. Ernest Rutherford C. Neils Bohr D. John Dalton

3._____Ernest Rutherford is credited with discovering which part of the atom?
A. quarks B. electrons C. nucleus D. neutrons

4._____The three basic particles that make up an atom are:
A. protons, neutrons, and ions
B. protons, neutrons, and electrons
C. protons, isotopes, and ions
D. nuclei, electron cloud, and protons

5._____The nucleus of an atom consists of:
A. protons and electrons
B. neutrons only
C. protons and neutrons
D. protons, neutrons, and electrons

6._____Rutherford demonstrated that the atom
A. is made of mostly empty space
B. the nucleus has a positive charge
C. electrons are outside the nucleus
D. all of these

7._____A single proton has what electrical charge?
A no charge
B. positive one charge
C. negative one charge
D. either a positive or negative one charge

8._____Which particles have approximately the same size and mass as each other?
A. neutrons and electrons
B. electrons and protons
C. protons and neutrons
D. none - they all differ in size and mass

9._____As you move from left to right across a period in the Periodic Table, metallic properties
A. decrease
B. remain the same
C. increase
D. increase then decrease

10._____Which of the following is a property of nonmetals?
A. luster
B. high melting point
C. malleability
D. brittleness

11._____Which of the following is a property of metals?
A. dullness
B. brittleness
C. malleability
D. poor conductivity

12._____ Which two particles would be attracted to each other?
A. electrons and neutrons
B. electrons and protons
C. protons and neutrons
D. all particles are attracted to each other

13._____According to atomic theory, electrons are usually found:
A. in the atomic nucleus
B. outside the nucleus, but close to it