

Chemistry Review

1. What are subatomic particles,
 - a. protons
 - b. electrons
 - c. neutrons
 - d. all of the above
2. An ion:
 - a. more protons than neutrons
 - b. more electrons than neutrons
 - c. more protons than electrons
 - d. same protons and electrons but different neutrons
3. Which atom has the greatest ability to grab an electron?
 - a. S
 - b. F
 - c. K
 - d. He

Use the following for questions #4-9

A-Democritus B-Dalton C-Thomson D-Rutherford E-Bohr

4. First to say the atom was mostly empty space.
5. First to use the term, "atom".
6. Thought the atom was a tiny sphere.
7. Called the atom, "Plum pudding with raisins."
8. Put electrons in specific energy levels.
9. Did the gold foil experiment.
10. Which of the following will react similarly to the way that Be reacts?
 - a. Ca, Sc, Ti
 - b. Li, Na, Rb
 - c. Kr, Kt, Kg
 - d. Mg, Sr, Ca
11. An isotope of Be has
 - a. 5 protons.
 - b. 3 electrons.
 - c. 6 neutrons.
 - d. a mass of 9.
12. Atoms react to
 - a. become stable.
 - b. get a full valence shell.
 - c. neither a nor b.
 - d. both a and b.

13. An ion of fluorine has
- a. 10 protons.
 - b. 10 electrons.
 - c. 11 neutrons.
 - d. 9 electrons.
 - e. Both A and B
14. Which of the following is largest?
- a. Li
 - b. Be
 - c. B
 - d. C
15. Which of the following has the greatest electron affinity?
- a. O
 - b. F
 - c. Ne
 - d. Cl
16. Which of the following has the highest ionization energy?
- a. N
 - b. O
 - c. F
 - d. Ne
17. All the elements in the same period have
- a. the same # of valence electrons.
 - b. the same reactivity.
 - c. the same valence number.
 - d. the same # of energy levels.
18. The third period alkaline earth is
- a. Na
 - b. Ca
 - c. K
 - d. Mg
19. The Mg^{2+} ion has
- a. 10 protons.
 - b. 12 electrons.
 - c. 14 protons.
 - d. 10 electrons.
 - e. Either C or D
20. Which of the following is not a property of a metal?
- a. ductile
 - b. forms negative ions
 - c. malleable
 - d. conductive
21. Looking at the periodic table, groups are:
- a. rows across the table.
 - b. the left side of the table.
 - c. the right side of the table.
 - d. columns going down the table.
22. As you go across a period, the atomic size;
- a. goes down.
 - b. goes up.
 - c. stays the same.
 - d. fluctuates.
23. Chemical bonding only occurs at
- a. the nucleus.
 - b. the energy levels.
 - c. the valence shell.
 - d. the isotope.

24. Oxygen ;
- a. gains two electrons to be stable.
 - b. reacts with Hydrogen 2 H to 1 O
 - c. causes rust.
 - d. all of the above.
25. In the molecule AgCl , the silver must have a valence number of;
- a. 2+
 - b. 2-
 - c. 1+
 - d. 1-
26. Which family of the element's reactivity does not increase as you go up or down?
- a. alkali metals
 - b. alkaline earth
 - c. halogen
 - d. noble gas
27. Name two elements that react with hydrogen the way oxygen reacts with hydrogen.
- a. Li and Na
 - b. S and Se
 - c. C and Fe
 - d. N and F
28. Atomic weights are given as decimals on the periodic table because;
- a. they include the weight of the electrons.
 - b. they are averages of the stable isotopes.
 - c. both a and b
 - d. neither a nor b.
29. Which of the following is not true of the diatomic molecules?
- a. They are only diatomic when alone.
 - b. They include only the halogens.
 - c. There are seven of them.
 - d. They are stable.
30. Which is not true about hydrogen?
- a. It never has a mass greater than 1.
 - b. It reacts with oxygen 2 to 1.
 - c. It loses one electron to be stable.
 - d. It gains one electron to be stable.
31. An isotope of nitrogen can have;
- a. 7 protons and 8 neutrons.
 - b. 8 protons and 7 neutrons.
 - c. 7 protons and 8 electrons.
 - d. 6 protons and 9 electrons.
32. Most of the atoms that make up your body are as old as
- a. you.
 - b. the earth.
 - c. your parents
 - d. the universe.