Alvin Kulicke - 2/15/61

CHEMISTRY-PHYSICS TEST

I. Completion.

Directions: Write a word or phrase that corresponds to each of the following:

1. The study of matter and energy and their changes in which matter is not changed into a new kind of matter. _____ 1.
2. That which occupies space or has weight. _____ 2.
3. The smallest or simplest particle that matter can be divided into by chemical means. _____ 3.
4. Most abundant element in the earth's crust. _____ 4.
5. Equal volumes of gases under the same conditions of temperature and pressure contain the same number of molecules. _____ 5.
6. Chemical reaction in which heat and light are given off. _____ 6.
7. The number of protons in a calcium atom (Ca). _____ 7.
8. The number of neutrons in a uranium atom (U). _____ 8.
9. Name of a compound always formed in neutralization. _____ 9.
10. Break-up of the nucleus of an atom into two almost equal parts. _____ 10.
11. Pressure in a confined liquid is transmitted equally in all directions. _____ 11.
12. The product of force and distance. _____ 12.
13. Amount of heat required to raise one gram of water 1°C. _____ 13.
14. Particle common to all acids. _____ 14.
15. Effect upon the atomic weight when an alpha particle is given off. _____ 15.
16. Effect upon the atomic number when an alpha particle is given off. _____ 16.
17. Whole Number multiple of a fundamental tone. _____ 17.
18. Element in a vacuum tube originally devised by DeForest that controls the current flowing in the tube. _____ 18.
19. General name for a substance that contains two or more elements chemically combined in a definite proportion by weight. _____ 19.
20. General name for a substance that affects the speed of a reaction without being permanently affected itself. _____ 20.

II. Matching.

Directions: Write the item of the First List that matches the statement in the Second List in the appropriate space at the right:

First List	Second List	
Atom Electron Temperature Liquid Molecule Henry Watt Composition Isotope Energy Coulomb Cathode Power Heat Force Ohm Volt Anode Effort Mass Light Valence Proton Neutron Gravity	1. Ability to do work.	_____ 1.
	2. One of the physical states of matter.	_____ 2.
	3. Type of chemical change.	_____ 3.
	4. Positive electrode.	_____ 4.
	5. Beta particle.	_____ 5.
	6. Smallest particle matter can be divided into and still retain the properties of the original matter.	_____ 6.
	7. Push or pull.	_____ 7.
	8. Rate of doing work.	_____ 8.
	9. Unit of resistance.	_____ 9.
	10. Form of an atom that has a different weight from other forms of the same element.	_____ 10.
	11. Motion of molecules.	_____ 11.
	12. Unit of power.	_____ 12.
	13. Positive sub-atomic particle.	_____ 13.
	14. Number indicating chemical combining power.	_____ 14.
	15. Quantity of matter.	_____ 15.

III. True-False.

Directions: In the following if the statement is truem write TRUE in the space at the right. If the statement is false, cross out the underlined term and write in the space at the right the word or words which must be substituted for the underlined term to make the statement correct:

1. The most abundant gas in the atmosphere is oxygen. _____ 1.
2. The most abundant metal in the earth's crust is iron. _____ 2.
3. The layer of the atmosphere that contains charged atoms is in the ionosphere. _____ 3.
4. A solution in which the solvent contains more of the solute than it can hold in the presence of undissolved solute is saturated. _____ 4.
5. Supersonic means vibrations above the range of human hearing. _____ 5.
6. Two colors that combune to form white light are complementary. _____ 6.
7. Potential difference is measured in amperes. _____ 7.
8. A concave lens always produces a real image. _____ 8.
9. Like magnetic poles repel each other. _____ 9.
10. The strength of an electromotive force is dependent upon the rate of cutting lines of force by a conductor. _____ 10.
11. Iron is paramagnetic. _____ 11.
12. Electrons flow from negative to positive. _____ 12.
13. In parallel circiuts the current flows through each device in turn. _____ 13.
14. The region of the atmosphere where the air is densest is called the exonosphere. _____ 14.
15. Gamma rays consist of high speed helium nuclei. _____ 15.

IV. State Coulomb's Law.