Chemistry 4C Review UNIT 1 Qualitative Analysis

1. What is matter?
2. Define:- compound, element, mixture, solution, qualitative, quantitative, physical change, chemical change
3. What are the signs of a chemical reaction?
4. Know how to find electrons, protons and neutrons from the Periodic Table.
5. The law of conservation of mass says… The law of constant composition says…
6. Atomic # is
7. Mass # is
8. The number of protons in Mg is _____, the # of neutrons is _____, the # of electrons is ___.
9. Draw the Bohr Ruthford diagram and the Lewis diagram for Potassium. Draw the ion of nitrogen.
10. What is an excited atom? What happens when it loses its energy? Draw a diagram showing this. What is a ground state, excited state?
11. Define line spectrum, continuous spectrum.
12. Where is spectroscopy used.
13. Define valence shell, valence electron, stable octet
14. Define cation, anion
15. What is a polyatomic ion?
16. Write molecular, total ionic and net ionic equations. Identifying spectator ions.
17. Balance the following reactions and state the type of reaction it is
    a. $S_8 + O_2 \rightarrow SO_2$ type:_____
    b. $HgO \rightarrow Hg + O_2$ type: _____
    c. $BaCl_2 + Na_2SO_4 \rightarrow BaSO_4 + NaCl$ type : _____
    d. $H_2 + Cl_2 \rightarrow HCl$ type : _____
    e. $Mg + Al_{2(}SO_4)_3 \rightarrow MgSO_4 + Al$ type _____
18. Finish the following equation, write the net ionic equation and the spectator ions for:- Sodium chloride + silver nitrate →

19. Are the following soluble or insoluble:
20. $AgNO_3$ $NaNO_3$ KOH
21. Know how to use solubility charts.
22. Practice nomenclature…

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Go over ALL your course work ;)