**Unit 6 Review Sheet**

*Your test will consist primarily of word equations for which you must write the* ***molecular, total ionic, and net ionic equations****. The examples listed below are comprehensive of everything we have studied in this unit*. *Write each of the three equations listed above for each reaction.*

1. A solution of cadmium (II) nitrate is added to a solution of cesium sulfide.

Cd+2(*aq*) + S-2(*aq*) → CdS(*s*)

2. Aqueous sulfuric acid (H2SO4) is mixed with a solution of barium hydroxide.

2H+(*aq*) + SO4-2(*aq*) + Ba+2(*aq*) + 2OH-(*aq*) → BaSO4(*s*) + 2H2O(*l*)

3. A solution of hydrochloric acid (HCl) is added to solid iron (II) sulfide producing hydrosulfuric acid (H2S) and aqueous iron (II) chloride.

2 H+(*aq*) + FeS(*s*) → Fe+2(*aq*) + H2S(*g*)

4. Solid calcium carbonate is added to aqueous hydrochloric acid (HCl) producing calcium chloride, water, and carbon dioxide gas.

CaCO3(*s*) + 2H+(*aq*) → Ca+2(*aq*) + H2O(*l*) + CO2(*g*)

5. Solutions of calcium nitrate and rubidium chloride are mixed.

No Reaction

6. Magnesium turnings are added to a solution of iron (III) chloride.

3Mg(*s*) + 2Fe+3(*aq*) → 3Mg+2(*aq*) + 2Fe(*s*)

7. Sodium metal is added to water.

2Na(*s*) + 2H2O(*l*) → 2Na+(*aq*) + 2OH-(*aq*) + H2(*g*)

8. Lithium is added to hydrochloric acid (HCl)

2Li(*s*) + 2H+(*aq*) → 2Li+(*aq*) + H2(*g*)

9. Chlorine gas is bubbled through a solution of potassium iodide producing solid iodine and potassium chloride.

Cl2(*g*) + 2I-(*aq*) → I2(*s*) + 2Cl-(*aq*)

10. Zinc metal is added to a solution of sodium chloride.

No reaction

11. A piece of copper is dropped into a container of water.

No reaction

12. Zinc pellets are added to a sulfuric acid (H2SO4) solution.

Zn(*s*) + 2H+(*aq*) → Zn+2(*aq*) + H2(*g*)

13. A solution of iron (III) chloride is poured over a piece of platinum wire.

No reaction

14. Magnesium turnings are added to a solution of lead (II) acetate.

Mg(*s*) + Pb+2(*aq*) → Mg+2(*aq*) + Pb(*s*)

15. Aqueous solutions of potassium bromide and silver (I) nitrate are mixed.

Ag+(*aq*) + Br-(*aq*) → AgBr(*s*)