Name _____ Period ____

Honors Chemistry
Chemical Equations Practice Test

Form P

Part I: Balance the following equations using only the lowest whole number ratio.

1. ___ H_2 + ___ N_2 → ___ NH_3

2. ___ Hg + ___Br_2→ ___ $HgBr_2$

3. ___ HgO → ___ Hg + ___ O_2

4. ___ CO + ___ NO→ ___ CO_2 + ___ N_2

5. ___ $Cu(NO_3)_2$→ ___ CuO + ___ NO_2 + ___ O_2

6. ___ Eu + ___ HF→ ___ EuF_3 + ___ H_2

7. ___ $FeCl_2$ + ___ NaOH→___ $Fe(OH)_2$ + ___ NaCl

8. ___ HNO_3 + ___ Na_2CO_3→ ___ $NaNO_3$ + ___ H_2O + ___ CO_2

9. ___ HCl + ___ MnO_2→ ___ $MnCl_2$ + ___ Cl_2 + ___ H_2O

10. ___ H_2O + ___ NaCl → ___ H_2 + ___ Cl_2 + ___ NaOH

Part II: Write and balance the equations represented by the words below.

1) Sodium reacts with water to form sodium hydroxide and hydrogen gas.

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2) The combustion of propane (C_3H_8) to make carbon dioxide and water.

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3) Hydrochloric acid reacts with sodium hydroxide to make water and sodium chloride.

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4) Calcium carbonate decomposes to make carbon dioxide and calcium oxide.

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5) Calcium carbonate and hydrochloric acid to produce carbon dioxide, water, and calcium chloride

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Form P

Part III: Predict the products of the following reactions. Write a balanced equation for each reaction.

1) ___Na_2O + ___H_2O →

2) ___ Mg + ___HCl →

3) ___$MgCO_3$ →

4) ___K_2CO_3 + ___ H_2SO_4 →

5) ___C_3H_8 + ___O_2 →

Part IV: Write Net Ionic Equations for the following reactions.

1) $AgNO_3(aq)$ + NaCl(aq) →

2) $AgNO_3$ (aq)+ KBr(aq) →

3) $Ca(NO_3)_2$ (aq)+ Na_2CO_3 (aq) →

4) Na_2SO_4 (aq)+ BaI_2 (aq) →

5) $Pb(NO_3)_2(aq)$ + HCl(aq) →

6) Solutions of Nickel (II) sulfate and barium hydroxide are mixed

7) Solutions of Ammonium hydroxide and iron (III) chloride are mixed?