**COSTAATT**

**CHEM092 – Introduction to Concepts in Chemistry II**

**Lesson 6 – Homework**

1. Balance the following equations, and then classify the reactions as synthesis, decomposition, single displacement, ionic precipitation, neutralisation or reversible reactions:

(a) **C12H22O11(s) → C(s) + H2O(g)**

(b) **CaO(s) + H2O(l) → Ca(OH)2(s)**

(c) **ZnBr2(aq) + AgNO3(aq) ----> Zn(NO3)2(aq) + AgBr(aq)**

(d) O2 O3

(e) **Al(s) + CuCl2(aq)** → **AlCl3(aq) + Cu(s)**

2. An example of a very reactive metal is:

(a) lead (b) potassium (c) iron (d) copper

3. When one metal takes the place of another it is called:

(a) precipitation (b) displacement (c) hydration (d) dissolving

4. (a) List the following metals in order of decreasing reactivity: aluminium, copper, iron, sodium.

(b) Some magnesium powder was mixed with some copper(II) oxide and heated strongly. There was a vigorous reaction, producing lots of sparks and a bright flash of light.

(i) Name the products of the reaction

(ii) Write a balanced symbol equation for the reaction

(iii) Write an ionic equation for the reaction

(iv) Classify the reaction as synthesis, decomposition, single displacement, ionic precipitation or neutralisation.