**COSTAATT**

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

**Lesson 5 – Homework**

1. Write the ionic equations for the following reactions (**metals with acids**):

(a) The reaction of calcium with hydrochloric acid

(b) The reaction of cobalt with hydrochloric acid

(c) The reaction of iron with sulphuric acid

2. Write the ionic equations for the following reactions (**metal oxides with acids**):

(a) The reaction of iron(II) oxide with sulphuric acid

(b) The reaction of iron(II) oxide with nitric acid

(c) The reaction of copper(II) oxide with sulphuric acid

3. Write the ionic equations for the following reactions (**metal hydroxides with acids**):

(a) The reaction of potassium hydroxide with hydrochloric acid

(b) The reaction of calcium hydroxide with hydrochloric acid

(c) The reaction of magnesium hydroxide with hydrochloric acid

4. Write the ionic equations for the following reactions (**carbonates with** **acids**)

(a) The reaction of copper(II) carbonate with hydrochloric acid

(b) The reaction of calcium carbonate with nitric acid

(c) The reaction of magnesium carbonate with sulphuric acid