**COSTAATT**

**CHEM111 –Concepts in Chemistry I**

**Lesson 6 – 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