CH1012 Tutorial 2

Name:

1. What is an **amphoteric oxide** – provide an example and use chemical equations to illustrate your answer?

2. The chemistry of **lithium** (group 1A) and **beryllium** (group 2A) are significantly different to the other elements of groups 1A and 2A.
   - Why do these elements show different reactivity?

3. What is the **alkali metal** in the 4th period and how many protons and electrons does it have?
   - Write down the atomic symbol for this element and include the atomic number.
   - Provide an electronic configuration for this element.

4. **Ionic solids** and **covalent solids** have substantially different physical properties.
   - Provide an example of each type of solid using a group I metal in the ionic solid and a group IV non-metal in the covalent solid.
   - List 2 physical properties (qualitative values) for each example of solid that you have provided.
   - Explain why there are differences between the physical properties in each type of solid.

5. The Alkali Metals form **basic oxides**. Explain why the Group 1A oxides are basic using three different types of oxides to illustrate your answer.