

## CH1012

## Tutorial 2

**Name:**

1. Explain the difference between **ionic** and **covalent bonding** in terms of the differences in Ionisation Energy and other properties of the elements that are involved in the bonding.
2. **Group 1A oxides** such as  $\text{Li}_2\text{O}$  are basic, whereas the **Group 2A oxide BeO** is amphoteric, this is despite the fact that both metals are in the same period and are about the same size. Explain this difference in chemical reactivity.
3. Is a **Grignard reagent** such as methylmagnesium bromide ionic or covalent? Justify your answer.

4. Why does carbon have several different **allotropes** under ambient conditions and yet lithium doesn't?

5. What is an **amphoteric hydroxide**?