



(a) Answer these questions using **only** the elements shown in the diagram.


Write down the symbol for an element which

 (i) is a transition metal.


Fe

 (ii) forms an acidic oxide.


C

 (iii) has six electrons in its outer shell.

O

 (iv) has a giant covalent structure.


C

 (v) reacts rapidly with water.

Li

Describe the reactions, if any, of zinc and copper(II) ions with an excess of aqueous sodium hydroxide.

(i) zinc ions

addition of aqueous sodium hydroxide white precipitate 

excess sodium hydroxide the precipitate dissolves or a colourless solution

 is formed

(ii) copper(II) ions

addition of aqueous sodium hydroxide blue precipitate 

excess sodium hydroxide precipitate does not dissolve in excess

[4]