

## Chemical Reactions Practice

1. Write the balanced chemical equation for the complete combustion of acetylene,  $C_2H_{2(g)}$ . (4 marks)
2. Balance the following equation showing the incomplete combustion of octane fuel. (1 mark)  
$$2 C_8H_{18(l)} + 17 O_{2(g)} \rightarrow \underline{\hspace{1cm}} CO_{(g)} + \underline{\hspace{1cm}} H_2O_{(g)}$$
3. Predict the products most likely to be formed and write a balanced chemical equation for the following reactions.
  - a. Calcium reacts with iodine (3 marks)
  - b. Tin reacts with oxygen (6 marks)
  - c. Magnesium hydroxide decomposes (4 marks)
  - d. Iron (III) oxide pentahydrate decomposes (4 marks)
  - e. Potassium carbonate reacts with silver nitrate (5 marks)
  - f. Lithium sulfate reacts with sodium chloride (3 marks)
  - g. Lithium reacts with zinc sulfide (5 marks)
  - h. Gold reacts with sodium chloride (3 marks)