GCSE Chemistry B (Twenty First Century Science)

J258/01 Breadth in Chemistry (Foundation Tier)

Question Set 17

Multiple Choice Questions

1 Some cars use hydrogen fuel cells.

This is the reaction that happens in the fuel cell:

$$2H_2 + O_2 \rightarrow 2H_2O$$

(a) Name the product of this reaction.

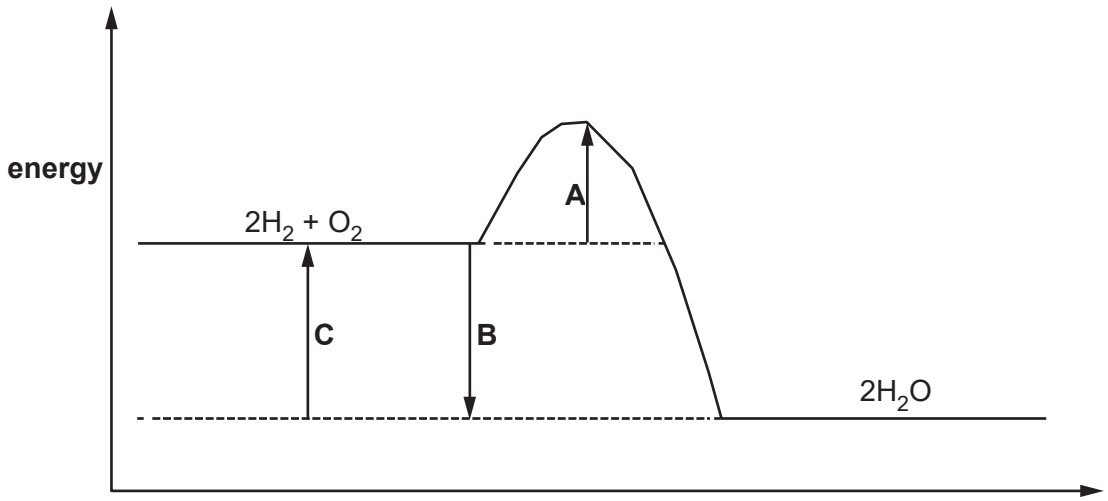
[1]

(b) Most cars still use petrol as a fuel.

Give two **advantages** of using hydrogen as a fuel for cars.

[2]

(c) The reaction profile below shows the energy changes when hydrogen and oxygen react together.



You may use each letter once, more than once, or not at all.

(i) Which arrow, **A**, **B**, or **C**, shows the activation energy for the reaction?

[1]

(ii) Which arrow, **A**, **B**, or **C**, shows that the reaction is exothermic?

[1]

(d) **(i)** Calculate the relative formula mass of H_2O.

Relative formula mass of H_2O =..... **[1]**

(ii) 4 g of hydrogen burns giving out 240 kJ of energy.

How much energy is given out when 20 g of hydrogen burns?

Energy =.....kJ **[2]**

Total Marks for Question Set 17: 8

Resource Materials

Question Set No: 17

The Periodic Table of the Elements