

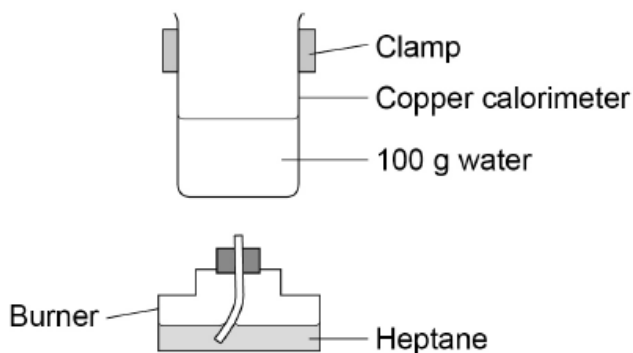
**AQA – Energetics – A2 Chemistry P2**

1. June/2021/Paper\_2/No.3

0 3

A student does an experiment to determine a value for the enthalpy of combustion of heptane.

Figure 2 shows some of the apparatus used.

**Figure 2**

0 3 . 1

Design a table to record all the readings necessary to determine an experimental value for the enthalpy of combustion for heptane in this experiment.

**[2 marks]**

0 3 . 2

The student considered using a glass beaker on a tripod and gauze instead of the clamped copper calorimeter.

Suggest **two** disadvantages of using a glass beaker on a tripod and gauze.

**[2 marks]**

Disadvantage 1 \_\_\_\_\_

\_\_\_\_\_

Disadvantage 2 \_\_\_\_\_

\_\_\_\_\_

0 3 . 3

Suggest **two** reasons why the value of enthalpy of combustion from this experiment is less exothermic than a data book value.

[2 marks]

Reason 1 \_\_\_\_\_

\_\_\_\_\_

Reason 2 \_\_\_\_\_

\_\_\_\_\_

0 3 . 4

Suggest **one** addition to this apparatus that would improve the accuracy of the enthalpy value obtained.

[1 mark]

\_\_\_\_\_

\_\_\_\_\_