UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE NAME	

CENTRE NUMBER						CANDIDATE NUMBER				

GEOGRAPHY **0460/21**

Paper 2 **October/November 2013**

1 hour 30 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
                          Protractor
                          Plain paper
                          Calculator

1:50 000 Survey Map Extract is enclosed with this Question Paper.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces provided.
Write in dark blue or black pen.
You may use a soft pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.
DO **NOT** WRITE ON ANY BARCODES.

Answer **all** questions.

The Insert contains Photographs A, B and C for Question 3, and Photograph D for Question 5.
The Survey Map Extract and the Insert are **not** required by the Examiner.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.

For Examiner's Use	
Q1	
Q2	
Q3	
Q4	
Q5	
Q6	
Total	

This document consists of **14** printed pages, **2** blank pages and **1** Insert.

UNIVERSITY *of* CAMBRIDGE
International Examinations

[Turn over

1 Study the map extract, which is for Buffalo Range, Zimbabwe. The scale is 1:50 000.

(a) Fig. 1 shows some of the features in the north west part of the map extract. Study Fig.
and the map extract, and answer the questions below.
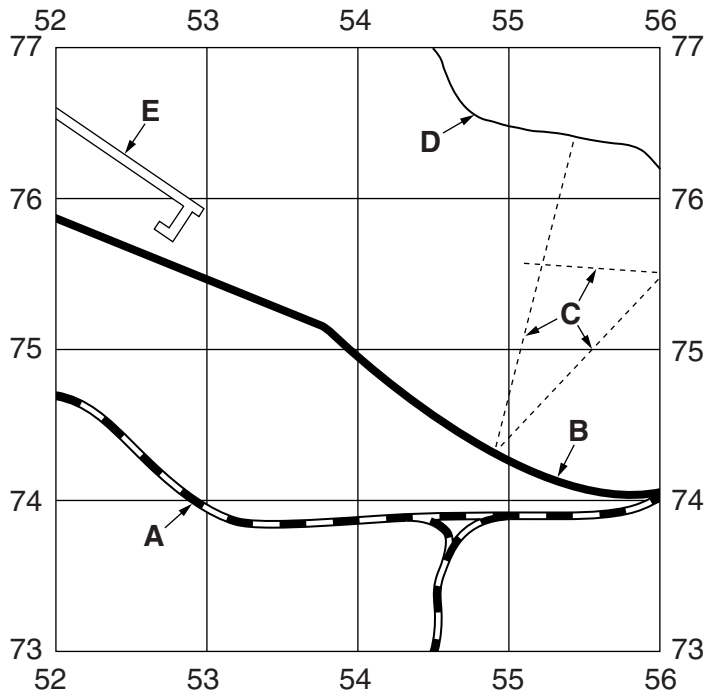
Fig. 1

Using the map extract, identify the following **transport** features shown on Fig. 1:

(i) feature **A**;

....[1]

(ii) the type of road at **B**;

....[1]

(iii) features **C**;

....[1]

(iv) feature **D**;

....[1]

(v) feature **E**.

....[1]
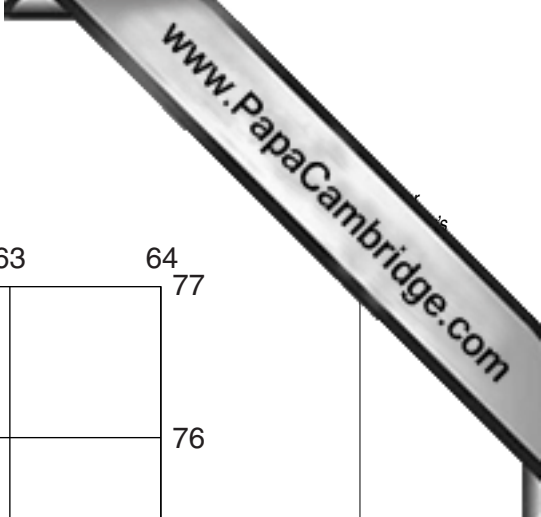
(b) Fig. 2 shows an area in the north east of the map extract.
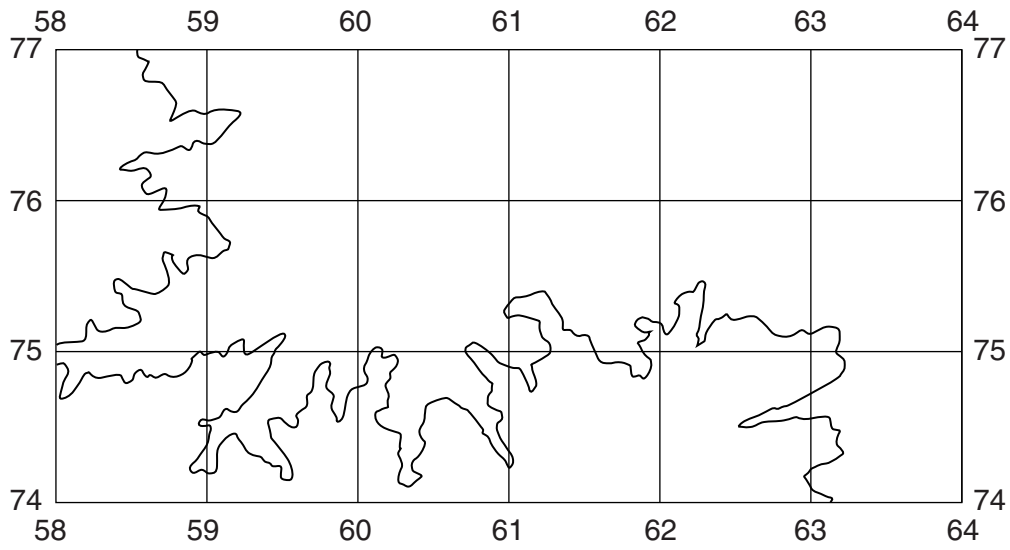
Fig. 2

(i) In which direction does the main river (Luhlangwalungwe) in this area flow? Circle **one** correct answer.

   north west   south west   north east   south east   [1]

(ii) Describe other features of the drainage in this area.

   ....

   ....

   ....

   ....

   ....

   ....[3]

(c) (i) A contour is shown on Fig. 2. What height above sea level is shown by this contour?

   ....[1]

(ii) On Fig. 2, mark the position of a quarry. Use the symbol shown in the key on the map extract.   [1]

[Turn over

(d) Fig. 3 shows the location of two hills in the east part of the map extract, Chitsanga and Chipoto Hill.
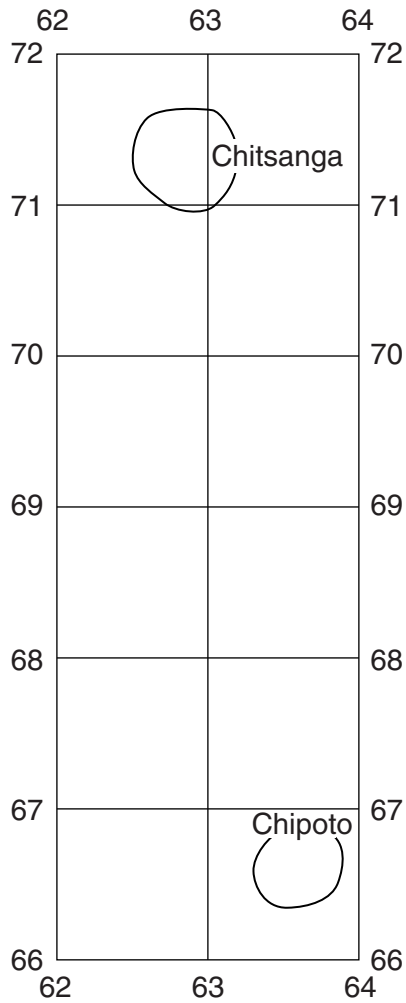
Fig. 3

(i) Identify the feature at the summit (top) of Chitsanga Hill.

....[1]

(ii) Give the six figure grid reference of the feature at the summit of Chitsanga Hill.

....[1]

(iii) Measure the distance in a straight line between the summits of the two hills. Give your answer in metres.

....[1]

(iv) Measure the bearing from grid north from Chitsanga Hill to Chipoto Hill.

.... degrees   [1]

(v) The summit of Chipoto Hill is 640 m above sea level. Which is the higher of the two hills and by how much?

....[1]
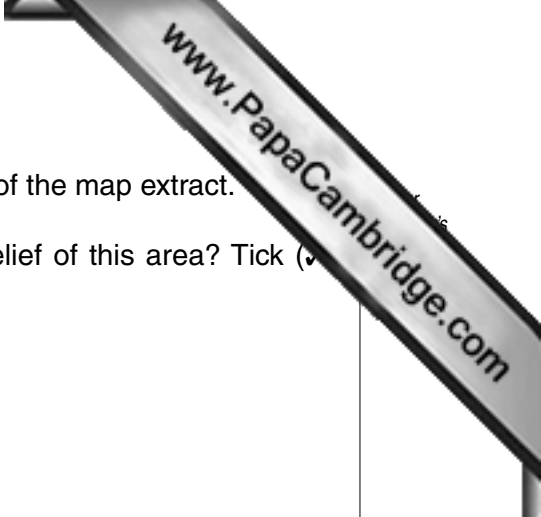
(e) Study the area of cultivation which covers much of the south of the map extract.

(i) Which **one** of the following statements describes the relief of this area? Tick (✓) **one** correct answer.

Statement	Tick (✓)
steeply sloping	
cliffs	
gently sloping	
ridge	

[1]

(ii) How have water supplies been developed in the cultivated area?

....

....[1]

(iii) What is the map evidence of power supplies to the cultivated area?

....

....[1]

(iv) What map evidence shows that housing is available for workers?

....

....[1]

[Total: 20 marks]

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2 Fig. 4 shows the percentage of the population aged 0 – 14 in selected countries from 2000 to 2010.
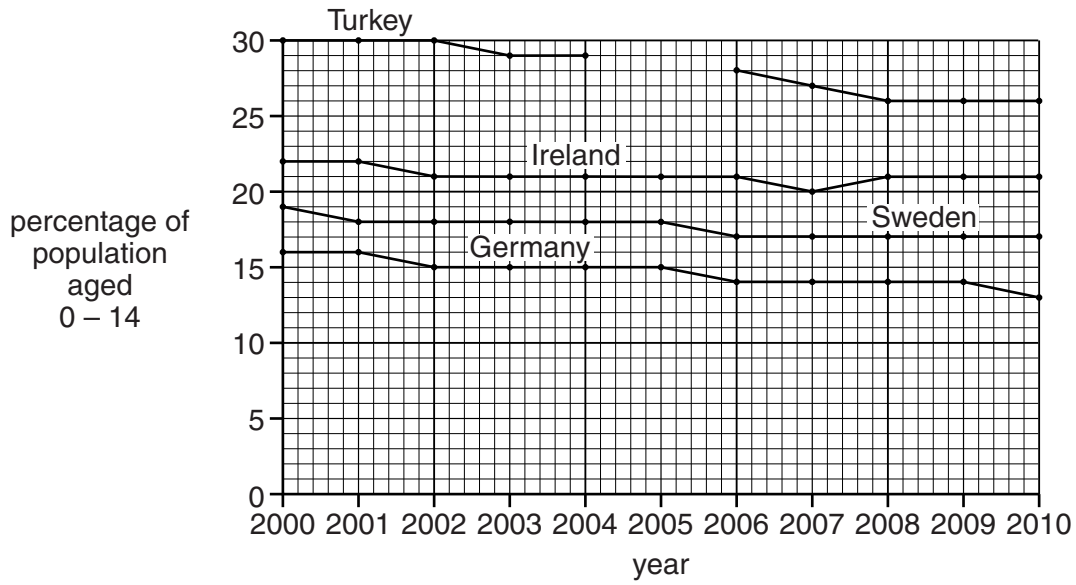
Fig. 4

(a) (i) In 2005 29% of the population of Turkey was aged 0 – 14. Complete Fig. 4 by adding this information. [1]

(ii) What percentage of the population of Germany was aged 0 – 14 in 2010?

.... percent [1]

(iii) Describe the general changes in the percentage of the population aged 0–14 between 2000 and 2010, shown on Fig. 4. There is no need to use figures in your answer.

....

....

....

....[2]

PA CAMBRIDGE
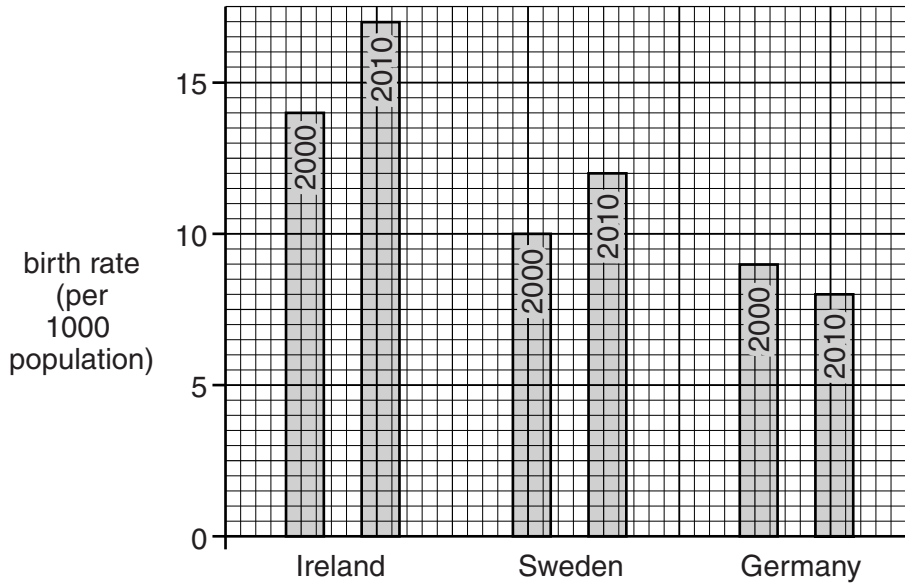
Fig. 5

(b) Fig. 5 shows the birth rates for three of the countries shown on Fig. 4 in 2000 and 2010. Using Fig. 5, state the birth rate of Germany in 2000.

....[1]

(c) (i) Using Figs 4 and 5, which country is most likely to have fewer young people in the future? Tick (✓) **one** answer below.

	Tick (✓)
Ireland	
Sweden	
Germany	

[1]

(ii) Using Figs 4 and 5, which country is most likely to have the largest percentage of young people in the future? Tick (✓) **one** answer below.

	Tick (✓)
Ireland	
Sweden	
Germany	

[1]

(d) Suggest **one** advantage for a country of having a large percentage of young people.

....

....[1]

[Total: 8 marks]

[Turn over

8

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3 Photographs A, B and C (Insert) show three urban areas in Africa.

(a) Complete the table below by placing a tick (✓) in the **four** correct boxes. Use **one** tick only for each row.

	Photograph A	Photograph B	Photograph C	None of the photographs
high class residential zone				
industrial zone				
CBD				
squatter (informal or shanty) area				

[4]

(b) Describe the buildings shown in Photograph A.

....

....

....

....

....

....

....

....

....

....[4]

[Total: 8 marks]

[Turn over
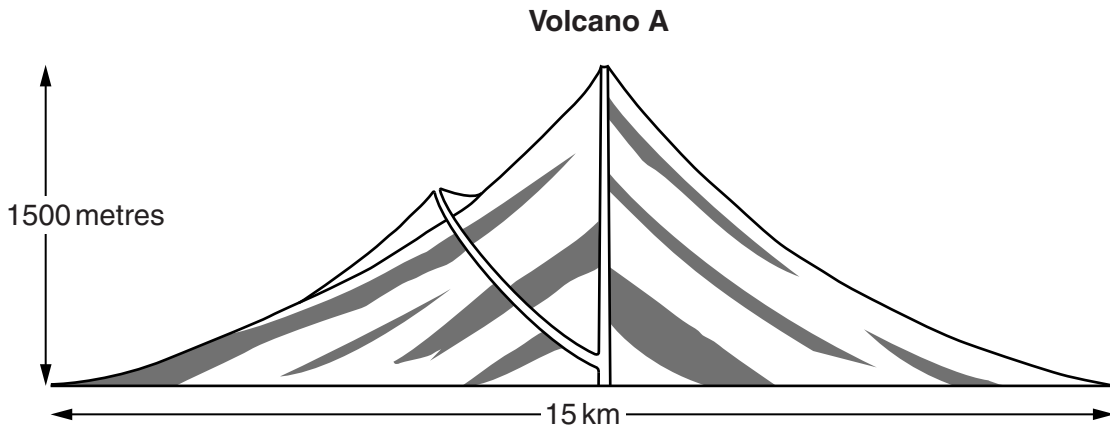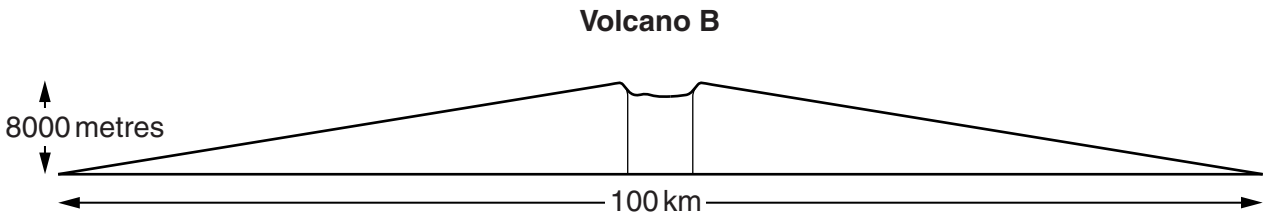
4   Fig. 6 shows cross-sections of two types of volcano, Volcano A and Volcano B. Study and answer the questions on the opposite page.

Volcano A

1500 metres

15 km

Key

☐ lava

▨ ash

Volcano B

8000 metres

100 km

Fig. 6

(a) Describe the differences between Volcano A and Volcano B.

....

....

....

....

....

....

....

....

....

....[5]

(b) Give reasons for the differences that you have described in part **(a)**.

....

....

....

....

....

....

....

....[3]

[Total: 8 marks]

[Turn over

5 Photograph D (Insert) shows a coastal area.

(a) Identify features **W**, **X**, **Y** and **Z** shown on Photograph D. Choose from:
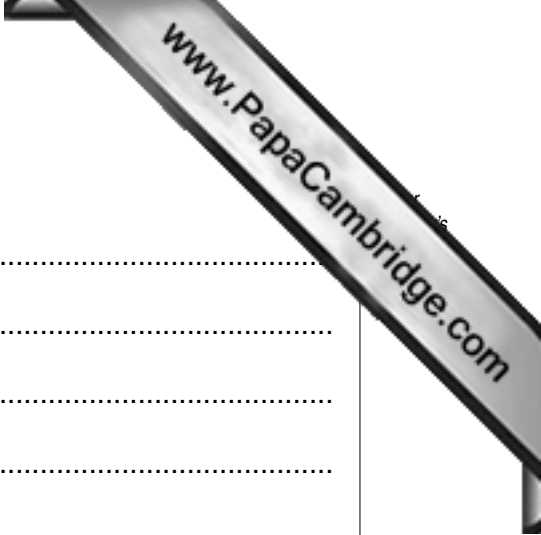
<div align="center">

beach

arch

stack

wave-cut platform

cliff

spit

plateau

</div>

   (i) **W** …………………………………….   [1]

  (ii) **X** …………………………………….   [1]

 (iii) **Y** …………………………………….   [1]

 (iv) **Z** …………………………………….   [1]

(b) Explain how feature **X** was formed.

....

....

....

....

....

....

....

....[4]

[Total: 8 marks]

[Turn over

6 Fig. 7 gives information about air pollution in Pennsylvania, an industrialised area of the USA.

The sources of three air pollutants: carbon monoxide, sulfur dioxide and nitrogen oxides are shown.

Carbon monoxide

Sulfur dioxide

Nitrogen oxides

Key

from vehicles

from power stations

from industry

from other sources
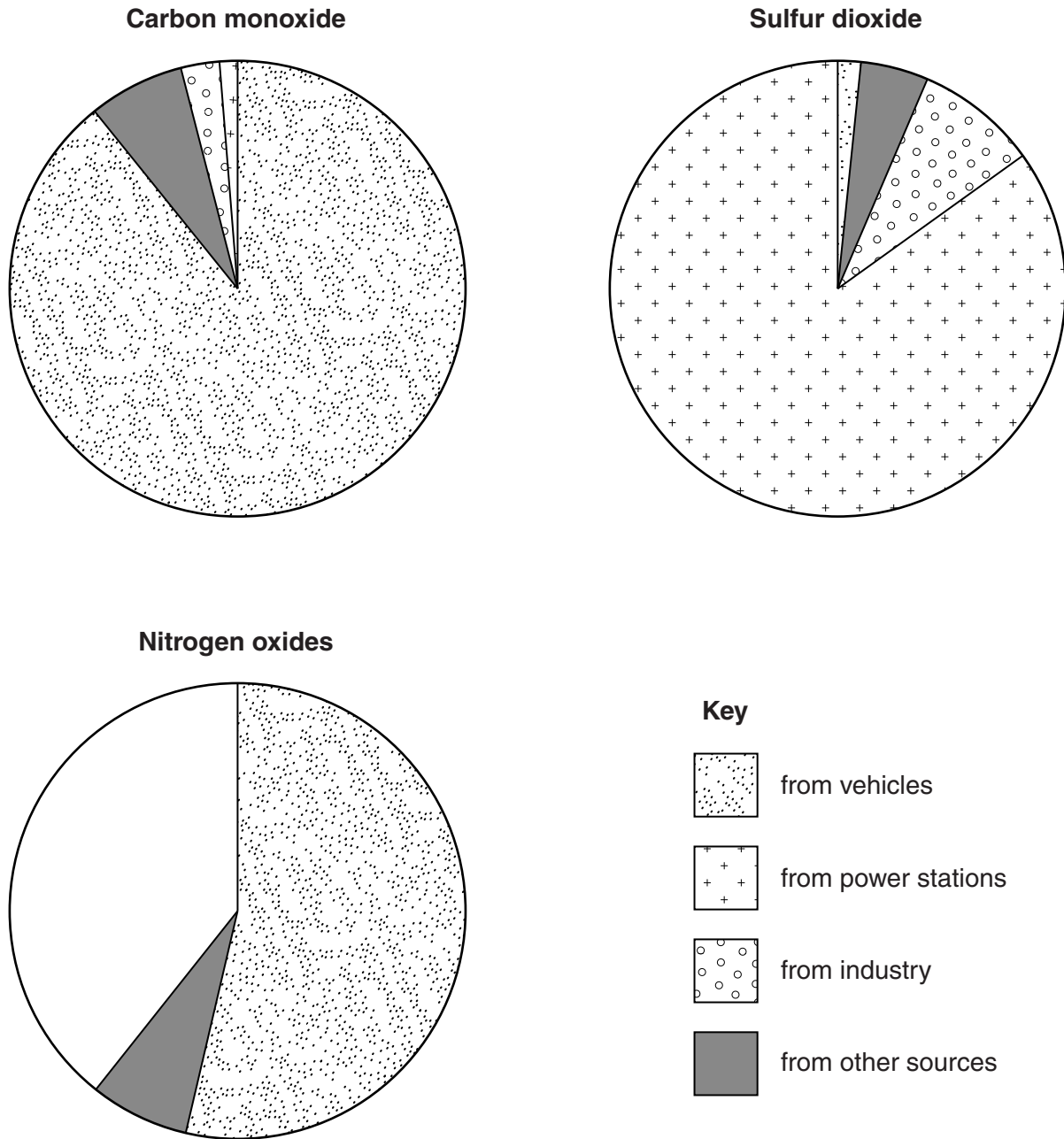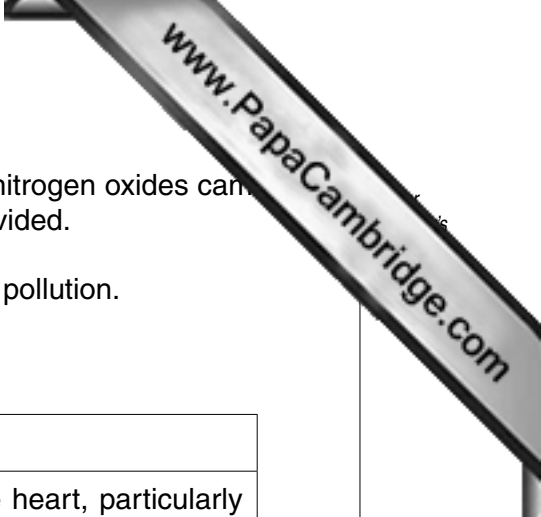
Fig. 7

(a) Complete Fig. 7 by adding the following information: 27% of nitrogen oxides cam[e from] power stations and 12% came from industry. Use the key provided.

(b) Table 1 gives information about the effects of each type of air pollution.

Table 1

Pollutant	Effect
Carbon monoxide (CO)	It can reduce the supply of oxygen to the heart, particularly for people suffering from heart disease
Sulfur dioxide (SO_2)	Causes coughing and irritation of the lungs. It increases the acidity of rain
Nitrogen oxides including nitrogen dioxide (NO_2)	Cause coughing and irritation of the lungs. They help to form ozone which causes photochemical smog

Using information from Fig. 7 and Table 1, explain why the following people may be in favour of reducing emissions from power stations.

(i) a doctor;

....

....[1]

(ii) an environmental pressure group.

....

....

....

....[2]

(c) The government might propose changing power stations to reduce these harmful emissions. Suggest why other people might oppose these changes.

....

....

....

....[2]

[Total: 8 marks]

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