



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE
NAME

CENTRE
NUMBER

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GEOGRAPHY

0460/02

Paper 2

October/November 2007

1 hour 30 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
 Protractor

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 IN ANY BARCODES.

Answer **all** questions.

The Insert contains Photograph A for Question 3.

Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

The Survey Map Extract and the Insert are **not** required by the Examiner.

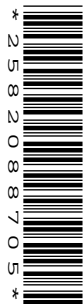
At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [] at the end of each question or part question.

For Examiner's Use

Question 1	
Question 2	
Question 3	
Question 4	
Question 5	
Question 6	
Total	

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



1 Study the map extract of Victoria Falls, on the border of Zambia and Zimbabwe. The scale is 1:50 000.

(a) The waterfalls of Victoria Falls are one of the greatest tourist attractions in the world.

(i) Give **three** pieces of map evidence for tourism in the area shown on the map extract.

1

2

3 [3]

(ii) Tourists can travel to the town of Victoria Falls by road, rail and air. State the map evidence for this.

Road

.....

Rail

.....

Air

..... [3]

(b) South of the waterfalls (7818, 7918), the River Zambezi flows in a gorge.

(i) What type of boundary follows the line of the river?

..... [1]

(ii) A gorge is a deep, steep-sided valley. Describe other features of the gorge shown on the map.

.....

.....

.....

..... [2]

(iii) Estimate the length of the gorge in kilometres between the waterfalls (7818, 7918) and the south-eastern edge of the map (8710). An accurate measurement is not required.

..... kilometres [1]

(iv) What will happen to the position of the waterfall in the future?

.....
.....[1]

(c) Fig. 1 shows part of the railway shown on the map. On Fig. 1, use the symbols shown in the key to label the positions of:

- (i) an embankment;
- (ii) a cutting;
- (iii) a road bridge over the railway.

[3]

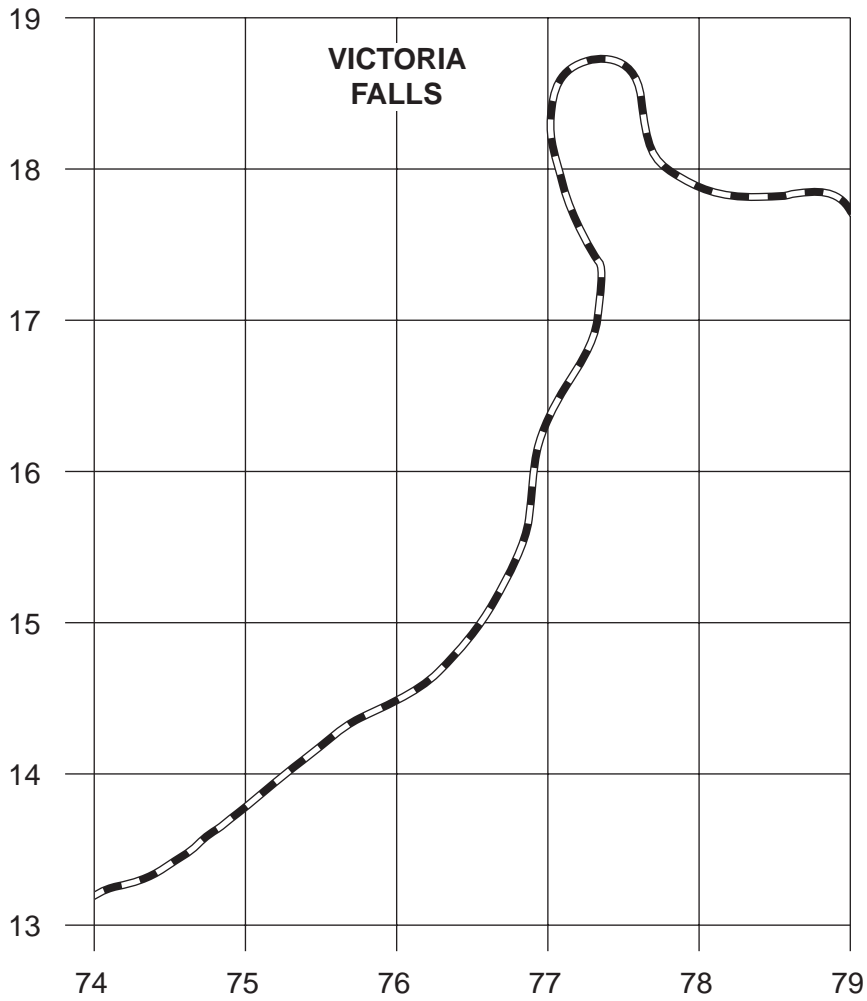


Fig. 1

(d) Fig. 2 shows the south-western part of the map extract.

(i) On Fig. 2, use the correct letter to label the position of:

- an area of sparse bush (B);
- a plateau (P);
- a scarp (S);
- an area of low drainage density (D).

[4]

(ii) On Fig. 2, use an arrow to show the flow direction of the Chamabonda river. [1]

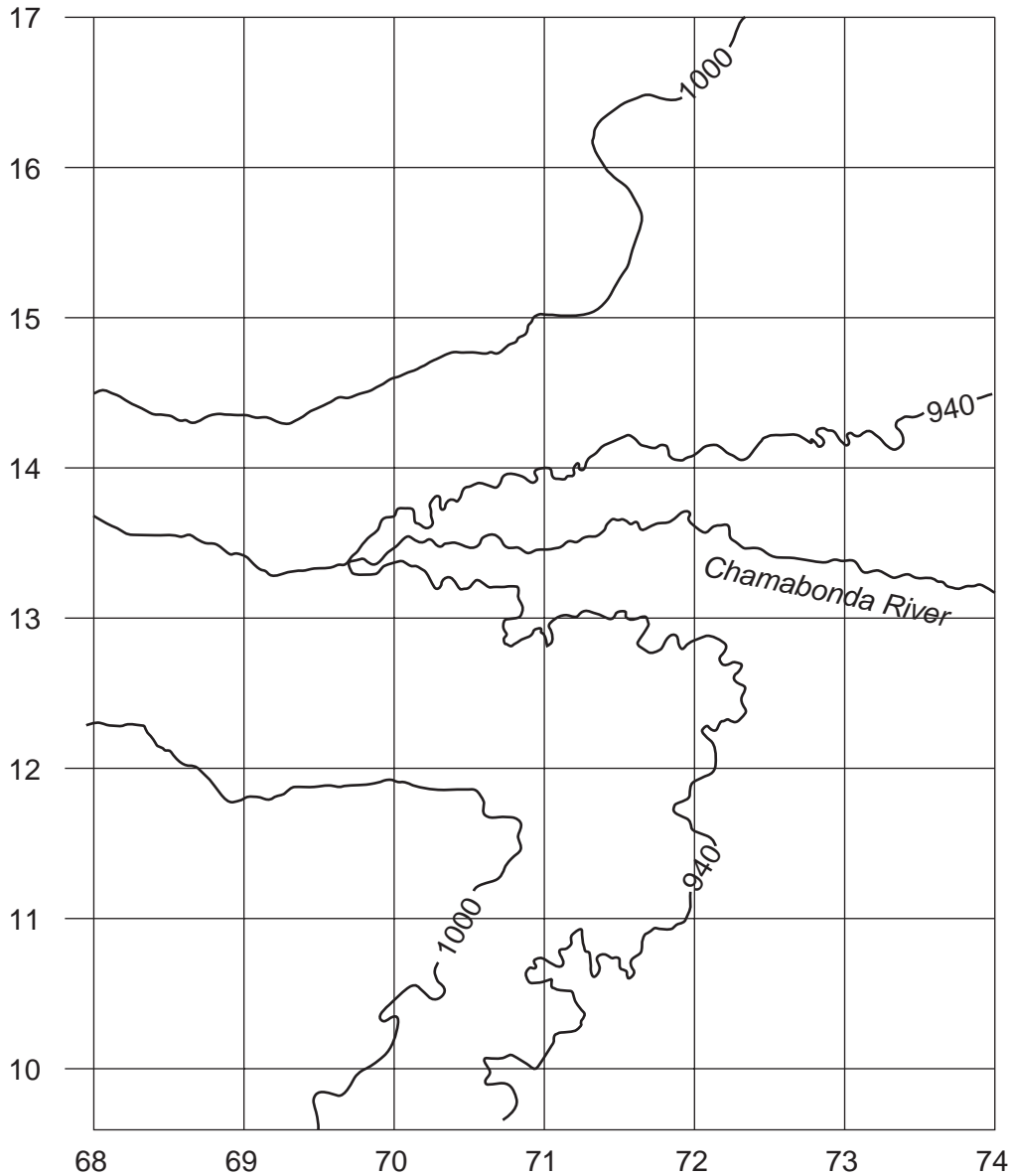


Fig. 2

(e) State the six figure grid reference for the southern tip of Princess Victoria Island (east of the town of Victoria Falls).

.....

[1]

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- 2 Fig. 3 shows the average temperatures during the year at four weather stations in Antarctica. The four weather stations are Faraday, Halley, South Pole and Vostok.

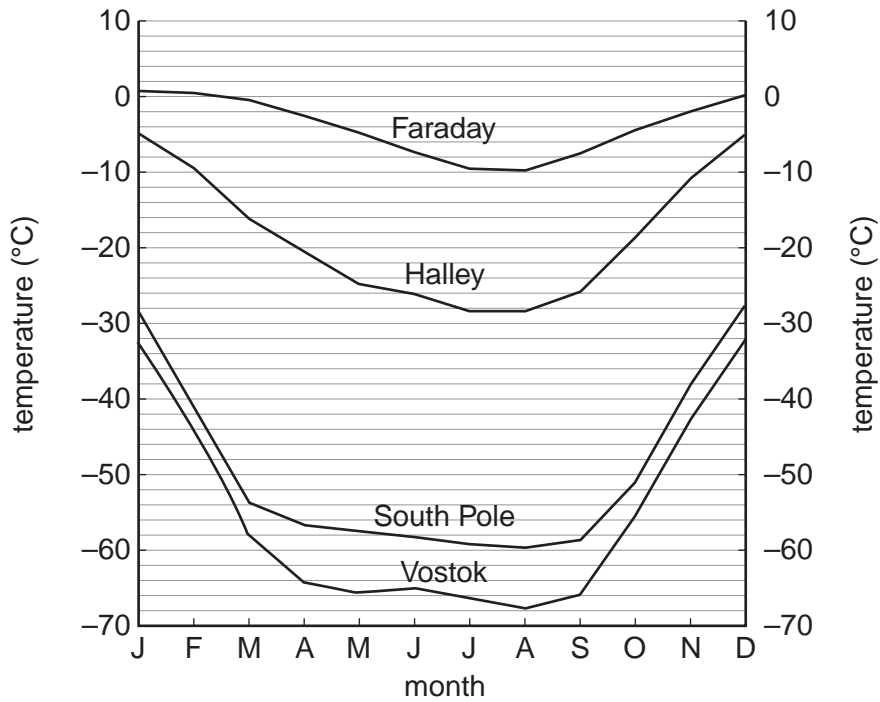


Fig. 3

(a) Look at the lowest temperature of all.

(i) At which weather station is this temperature?

..... [1]

(ii) In which month is this temperature?

..... [1]

(iii) State this temperature in degrees Celsius.

..... [1]

(b) Fig. 4 (opposite) shows the locations of the four weather stations in Antarctica and the altitude in metres above sea level.

On Fig. 4, shade the area between 3000 and 4000 metres above sea level. [1]

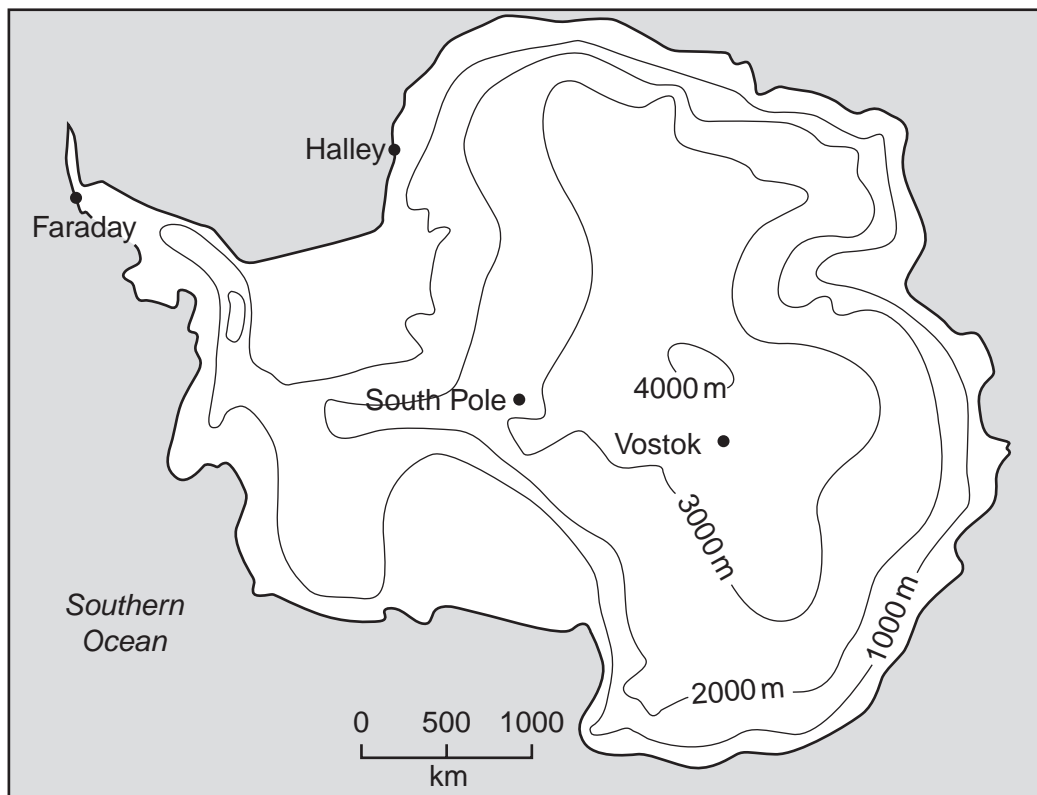


Fig. 4

(c) Table 1 gives information about the weather stations. Use the information on Figs 3 and 4 to complete Table 1.

Table 1

		altitude	annual temperature range
inland weather stations	South Pole	between 2000 and 3000 m	31°C
	Vostok	between andm	36°C
coastal weather stations	sea level	11°C
	sea level°C

[3]

(d) Suggest why Vostok is colder than the South Pole.

.....
 [1]

8

3 Photograph A (Insert) shows an area in Britain. Fig. 5 shows a student's field sketch of the same area.

(a) On Fig. 5, use labelled arrows to show the positions of:

- (i) the flood plain;
- (ii) a spur;
- (iii) a plateau.

[3]

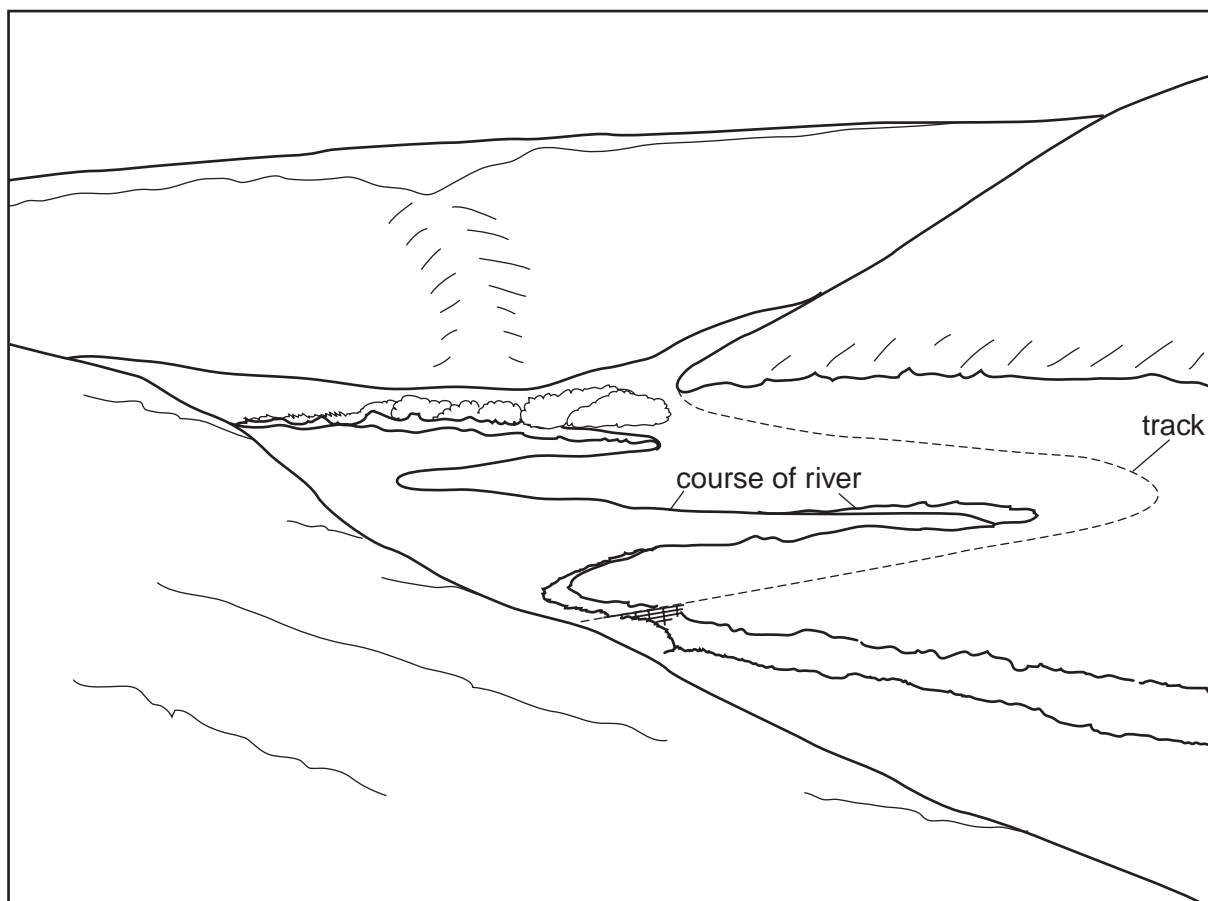


Fig. 5

(b) Using Fig. 5 to help you, describe the other physical features shown in Photograph A (Insert).

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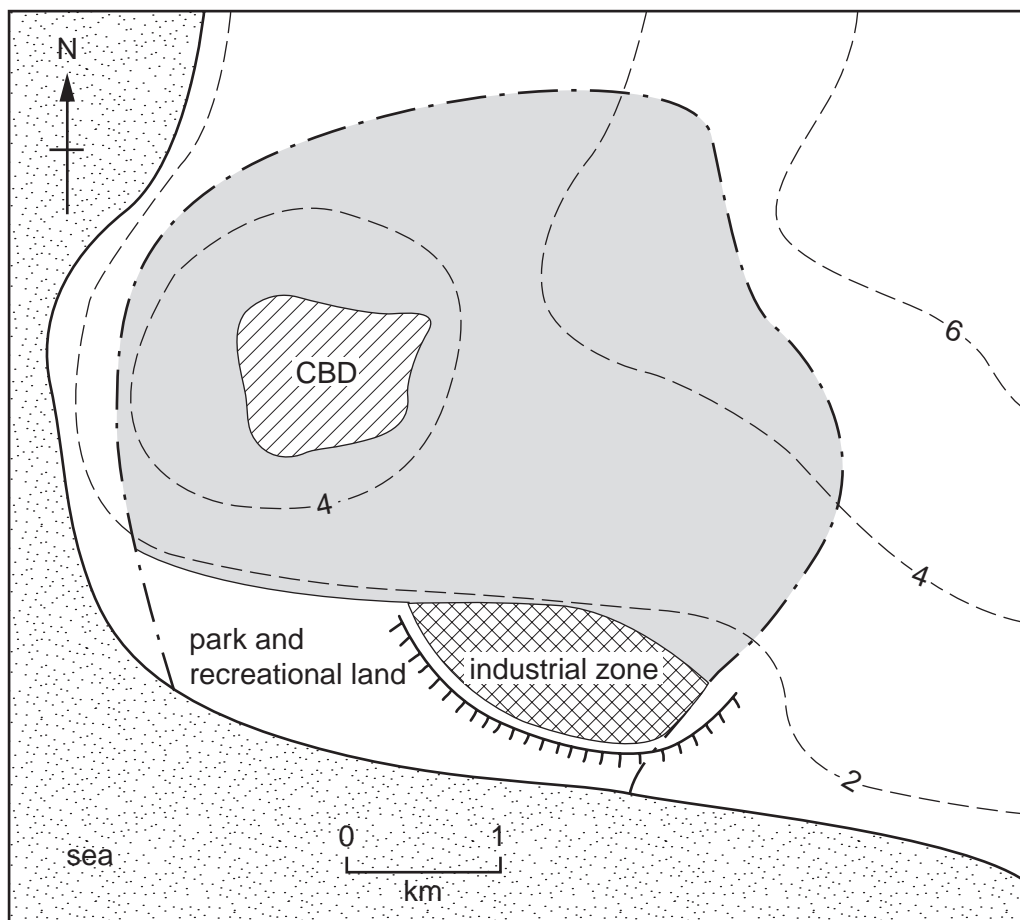
.....

.....

.....

..... [5]

- 4 Fig. 6 shows a town in a low-lying coastal area. The people of the town are worried about the effects of a possible rise in sea level.



Key

- 4 --- contours (metres)
- ||||| planned sea wall
- . - . - town boundary
- residential area

Fig. 6

(a) Describe the effect on the town if sea level rises:

(i) by 2 metres

.....
.....

(ii) by 4 metres

.....
.....

(iii) by 6 metres

.....
..... [4]

(b) It was decided to plan for a possible rise in sea level of 1 metre. A sea wall (shown on Fig. 6) was built to prevent the sea from coming inland.

(i) Label with the letter F an area of the town which may still flood if sea level rises by 1 metre. [1]

(ii) Explain why the sea wall was built in the position shown.

.....
.....
.....
..... [2]

(c) State **one** possible cause of a future rise in world sea level.

.....
..... [1]

5 Fig. 7 shows the population density and fuel used per person for travel in cities. The cities are in North America, Australia, Europe and Asia.

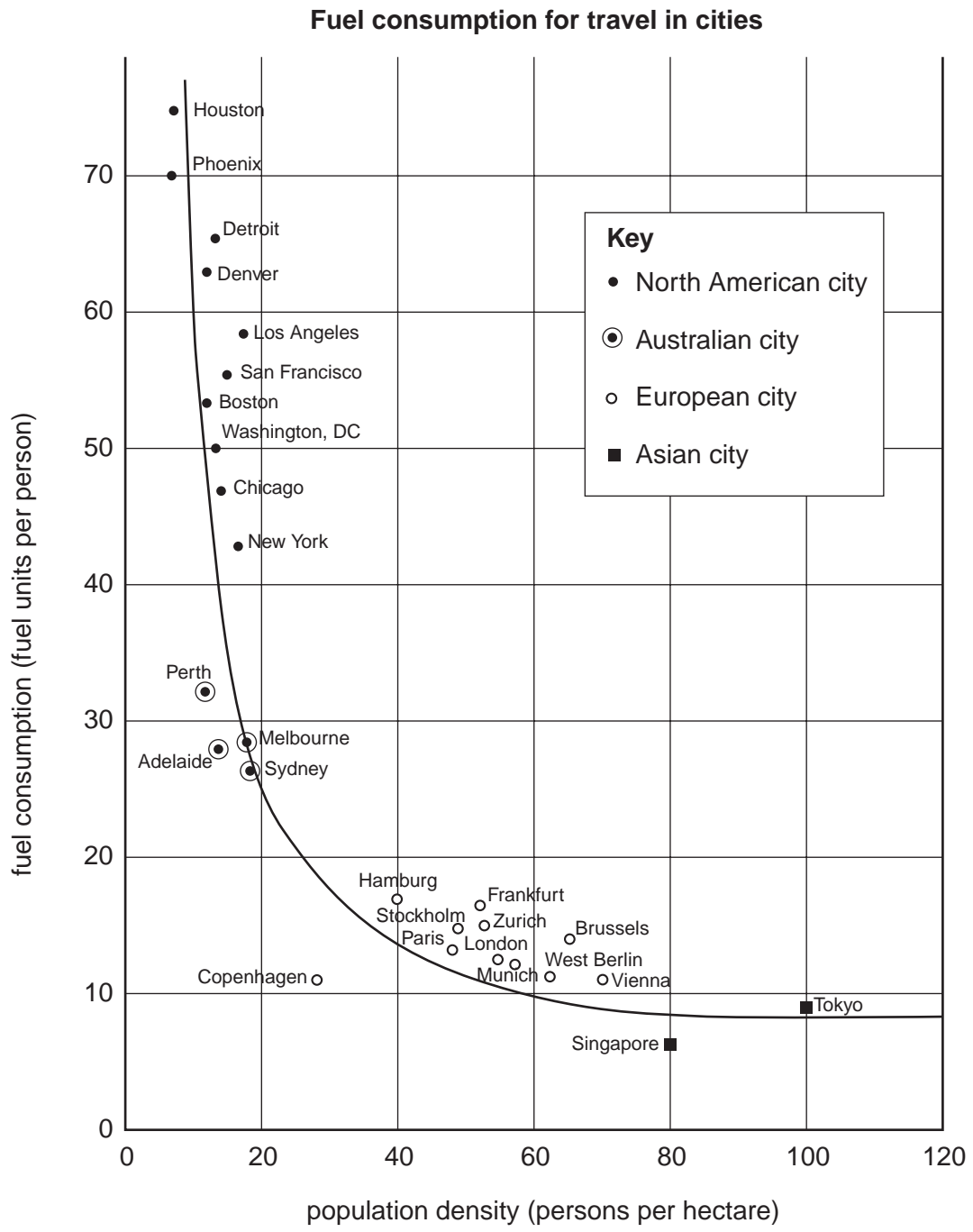


Fig. 7

(a) (i) Which city uses least fuel per person for travel?
..... [1]

(ii) Which city has the highest population density?
..... [1]

(iii) Which North American city uses least fuel per person for travel?
..... [1]

(b) Look at the European and Australian cities. Describe the differences in fuel consumption and population density between these two groups of cities. You may use figures to illustrate your answer.

Fuel consumption
.....
.....
.....
.....

Population density
.....
.....
.....
..... [3]

(c) Suggest **two** reasons for the differences in fuel used for travel shown in Fig. 7.
.....
.....
..... [2]

- 6 (a) Study Fig. 8, which describes agricultural production in Lesotho, southern Africa, and answer the questions which follow.

Agriculture in Lesotho in 2003

Agriculture's share of the GDP (a measure of the country's wealth production) has fallen from about 30% in the 1980s to less than 20% today. It remains important to the country. Nearly 85% of the people live in rural areas and about 70% get part of their income from agriculture.

Crop production fell by 12% in 2002 and by 6% in 2003. Problems include variable weather and a decline in the quality of agricultural land. The government is attempting to develop crop production through increased commercialisation. Wheat and peas are harvested in the first half of the year and maize, sorghum and beans in the second half.

Livestock production is important to the rural economy. Much of Lesotho's terrain is suited to animal production, although the sector has suffered from drought in recent years. Cattle exports have usually been about one-third of agricultural exports and there are a number of projects under way to improve the cattle herds. The growth rate for this sector has been on the increase since 1997, despite government efforts to reduce livestock numbers. To rural people, cattle are a form of wealth and are used to perform cultural activities. However, uncontrolled cattle numbers reduce the quality of grazing land, cause erosion and use valuable water resources.

Fig. 8

- (i) What percentage of the population get part of their income from agriculture?
..... [1]
- (ii) State **one** reason, given in Fig. 8, for the decline in crop production.
..... [1]
- (iii) Why do some people in rural areas want to have more cattle?
.....
..... [1]
- (iv) Why does the government want people to have fewer cattle?
.....
..... [1]

(b) Table 2 shows production of crops in Lesotho for five years.

Table 2

Crop production (thousands of tonnes)

	1999	2000	2001	2002	2003
maize	124	107	158	111	82
sorghum	33	20	45	12	12
wheat	15	23	37	19	13
beans	9	14	8	4	4
peas	3	3	4	3	3

Name and sketch **two different** types of graph to show the following information:

(i) a graph to show the amount of each crop in 1999;

Name of type of graph

Sketch of graph

[2]

(ii) a **different** type of graph to show the changes in maize production between 1999 and 2003.

Name of type of graph

Sketch of graph

[2]

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Copyright Acknowledgements:

Question 3 Photograph A David Kelly © UCLES.

Question 5 Fig. 7 © Michael Pacione; *Urban Geography*; Taylor & Francis Books Ltd; 2005.

Question 6 Fig. 8 © The Official SADC Trade, Industry and Investment Review published jointly by Southern African Marketing Company (Pty) Ltd and the SADC Secretariat.

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