



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE
NAME

CENTRE
NUMBER

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CANDIDATE
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GEOGRAPHY

0460/21

Paper 2

May/June 2010

1 hour 30 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
 Protractor
 Plain paper

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 Photographs A and B for Question 4.

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.

This document consists of **15** printed pages, **1** blank page and **1** Insert.



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

(a) Study the main settlement at Rusape, in the north east of the map extract. A hospital, hotel and an aerodrome are marked on the map. Name **five** other services or functions found at the settlement.

1

2

3

4

5

[5]

(b) The Rusape River flows across the area.

(i) Give **two** pieces of evidence which suggest that the river is flowing from the north east towards the south west.

1

.....

2

..... [2]

(ii) Measure the average width of the river in grid square 0242. Tick (✓) **one** correct answer.

	Tick
50m	
100m	
150m	
200m	

[1]

(c) Fig. 1 shows the gravel or earth road in the north west of the map extract.

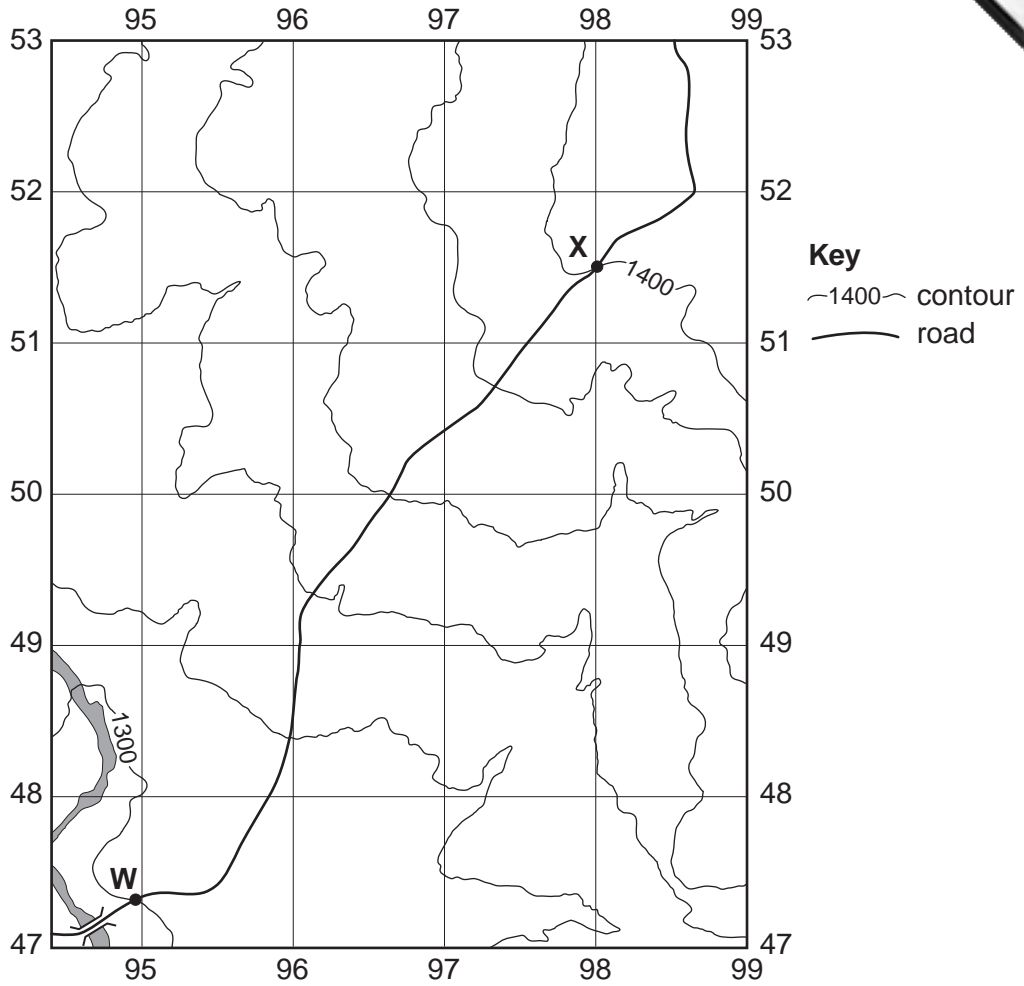


Fig. 1

- (i) On Fig. 1, the heights of two of the contours are shown. Label the heights of the other **four** contours. [1]
- (ii) Measure the distance in metres along the road between points **W** and **X**.
 metres [1]
- (iii) Calculate the gradient along the road between points **W** and **X**.

$$\text{gradient} = 1 \text{ in } \frac{\text{horizontal distance}}{\text{difference in height}}$$

Show your calculation here = _____ [1]

= 1 in [1]

(d) Fig. 2 is a cross section along northing 45 from the western edge of the map at S to 010450.

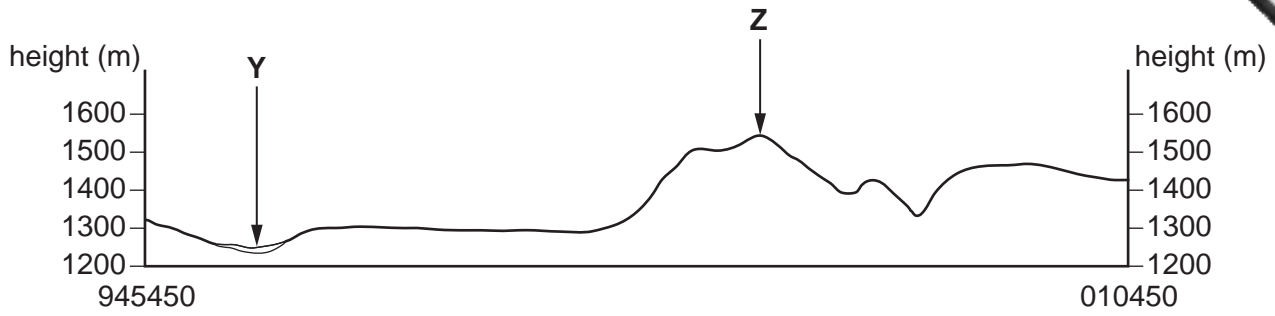


Fig. 2

(i) Name the river at Y.

..... [1]

(ii) Name the hill at Z.

..... [1]

(iii) On Fig. 2, label a place where there is sparse or medium bush. [1]

(e) Look at the bridge where the railway crosses the Rusape River.

(i) State the six figure grid reference of the bridge.

..... [1]

(ii) What is the bearing, from grid north, from the bridge to the Rusape Dam?
Tick (✓) **one** correct answer.

	Tick
between 045° and 090°	
between 090° and 135°	
between 135° and 180°	
between 180° and 225°	
between 225° and 270°	

[1]

- (f) Find the area of the map extract shown on Fig. 3. Study the distribution of cultivation in this area. Cultivation is shown by brown shading.

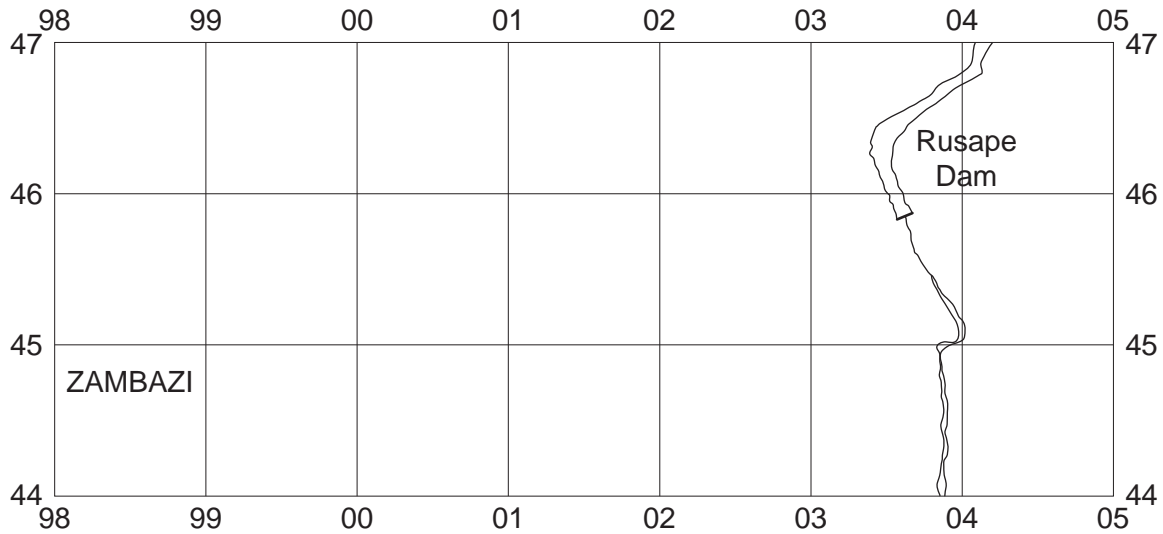


Fig. 3

The paragraph at the bottom of this page describes the distribution of cultivation in the area.

Complete the paragraph by filling in the missing words. Choose the words from the following list:

away from

steep

lower

highest

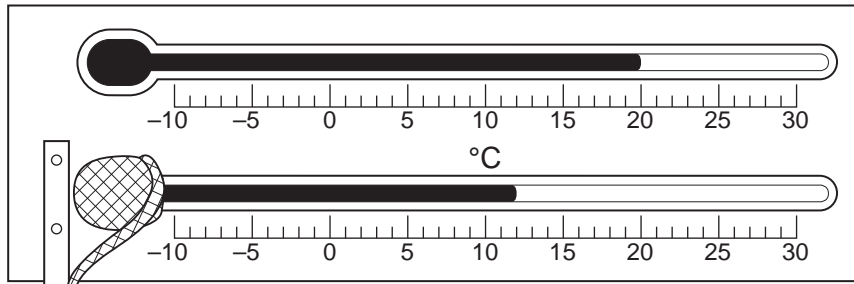
gentle

close to

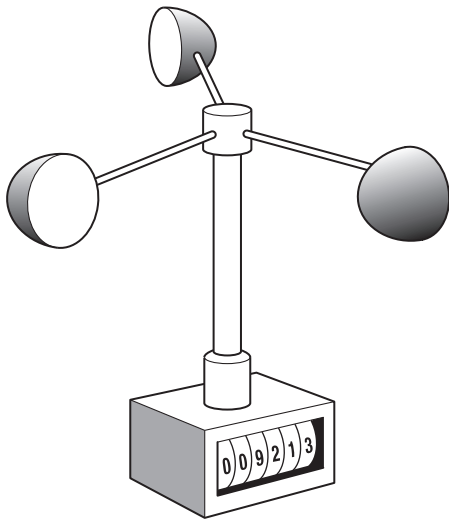
“About half of the area is under cultivation. Altitude affects the distribution, with cultivation usually found on the land. Angle of slope is also important. The areas of cultivation are generally where the slopes are more Cultivated areas are quite close to settlements but mostly the banks of the Rusape River.” [3]

[Total: 20 marks]

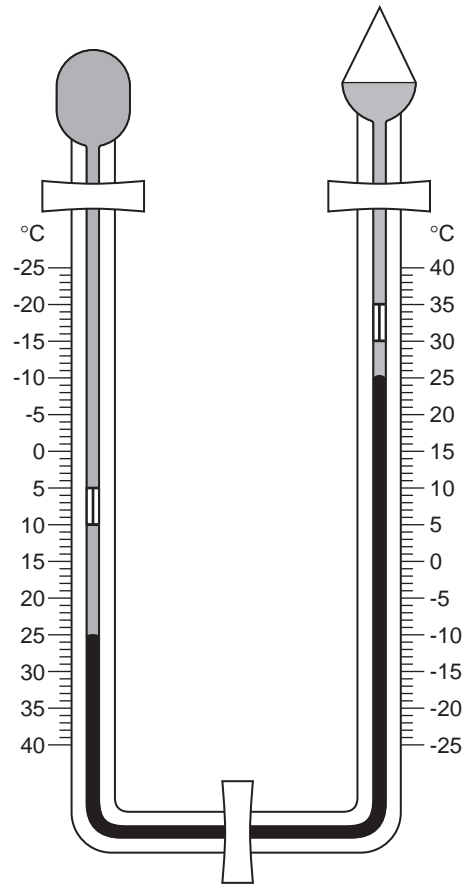
2 Study Fig. 4 below, which shows Instruments A, B and C, which are used to measure weather.



Instrument A



Instrument B



Instrument C

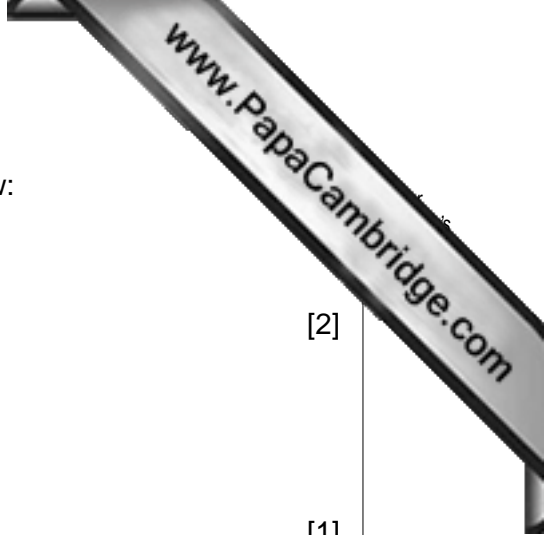
Fig. 4

(a) Name the three weather instruments.

(i) Instrument A

(ii) Instrument B

(iii) Instrument C



(b) On the diagram for Instrument **C**, use labelled arrows to show:

(i) mercury;

(ii) alcohol.

[2]

(c) Using the information shown on Instrument **C**, state:

(i) the present temperature;

.....

[1]

(ii) the maximum temperature since the instrument was re-set;

.....

[1]

(iii) the minimum temperature since the instrument was re-set.

.....

[1]

[Total: 8 marks]

- 3 Fig. 5 is a student's field sketch of a coastal area with a bay and two headlands. Fig. 6 is a map of the same area.

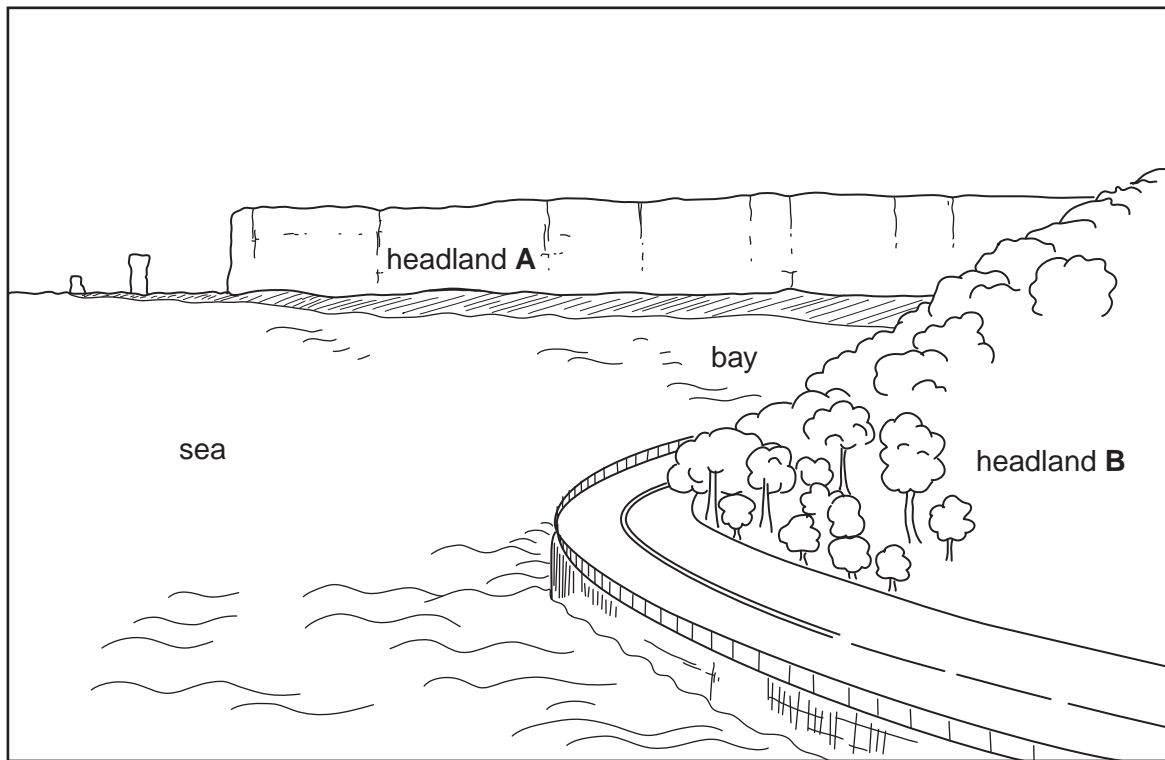


Fig. 5

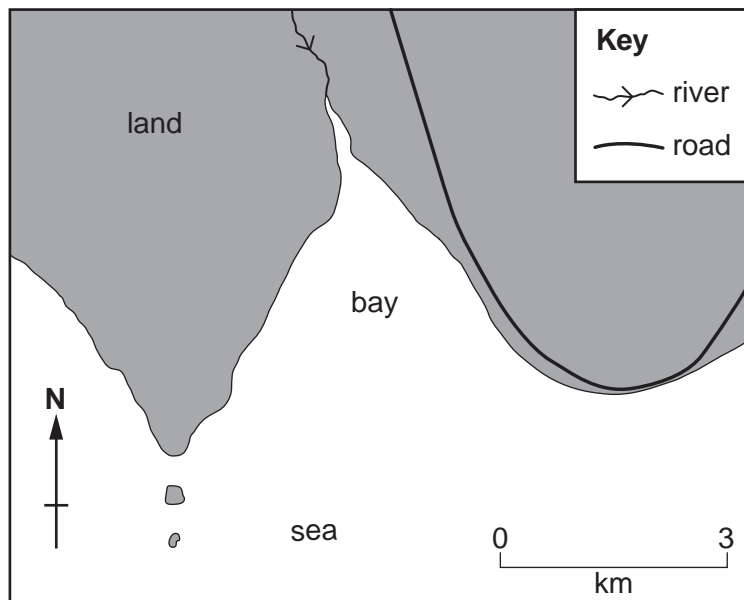
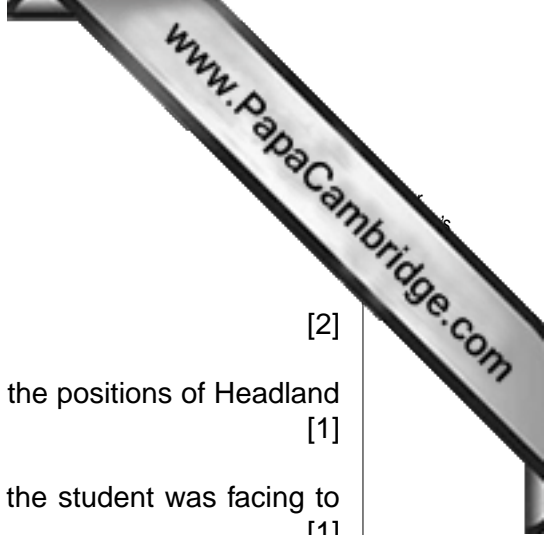


Fig. 6



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

(i) a stack;

(ii) a wave-cut platform. [2]

(b) (i) Headland **A** and Headland **B** are shown on Fig. 5. Label the positions of Headland **A** and Headland **B** on Fig. 6. [1]

(ii) Draw an arrow on Fig. 6 to show the direction in which the student was facing to draw the field sketch. [1]

(c) State **two** processes by which the sea erodes the cliffs at Headland **A**.

1

2 [2]

(d) The student's field sketch (Fig. 5) and Fig. 6 show the differences in the shapes of Headland **A** and Headland **B**. Suggest why the two headlands are different.

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

[Total: 8 marks]

4 Photographs **A** and **B** (Insert), show areas of crop farming in different parts of the world.

For each photograph:

- describe the features of the farming;
- suggest the type of agricultural system.

(a) Photograph **A**

Description of features of farming

.....

.....

.....

.....

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.....

.....

.....

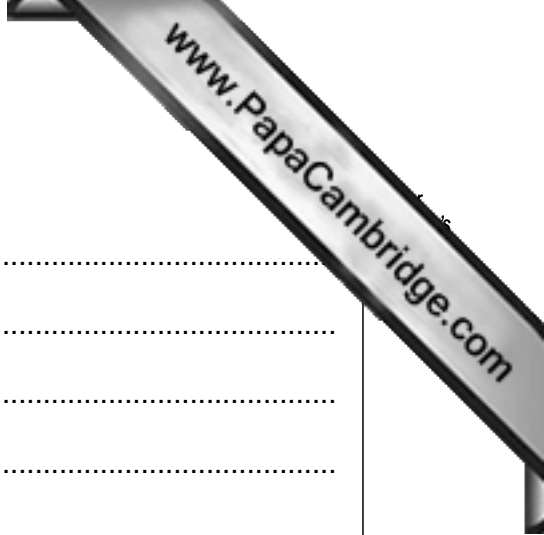
.....

.....

Type of agricultural system

.....

..... [4]



(b) Photograph B

Description of features of farming

.....

.....

.....

.....

.....

.....

.....

.....

.....

Type of agricultural system

.....

.....

[4]

[Total: 8 marks]

- 5 Fig. 7 shows the land use of an urban area. It is planned to develop a new shopping in the area. Three possible sites **A**, **B** and **C** are shown on Fig. 7.

Fig. 8 (opposite) shows a planning report giving information about the three sites.

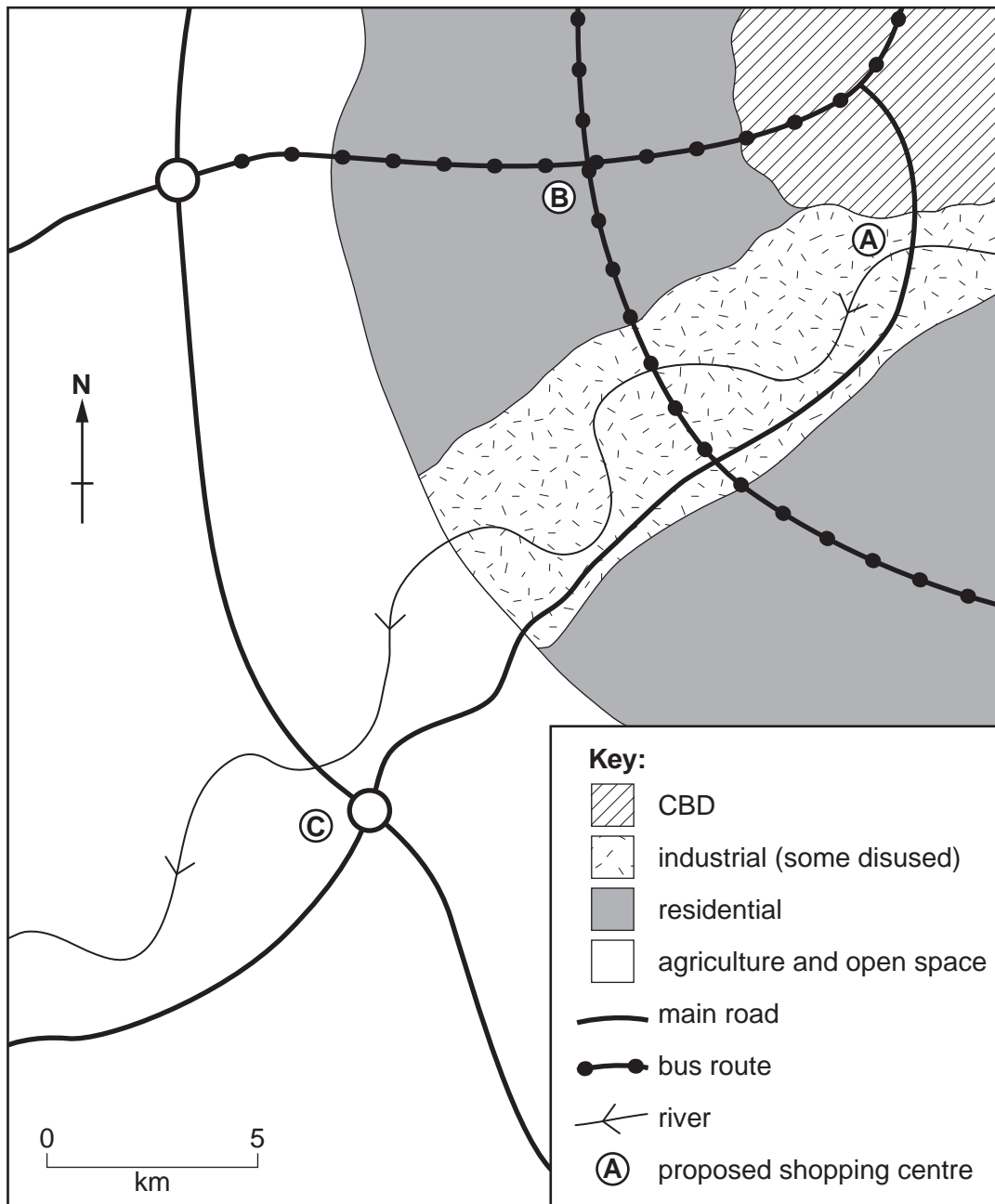
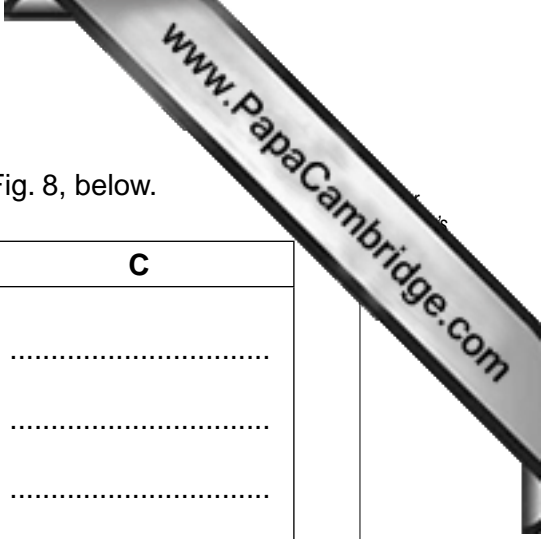


Fig. 7



(a) Using information from Fig. 7, complete the planning report, Fig. 8, below.

Site	A	B	C
Accessibility for customers	Away from areas of housing. Not on bus routes.	..... ..... ..... .....	..... ..... ..... .....
Accessibility for deliveries/Traffic congestion	..... ..... ..... .....	On inner ring road. Easy to get to but lorries must go through housing area.	Very easy to get to from bypass. No need for lorries to go through housing area.
Cost of land	Disused industrial land can be bought cheaply.	Land expensive in housing area.	..... ..... ..... .....
Air pollution/ carbon emissions of the development	Customers travelling by car will lead to more pollution / carbon emissions.	Close to housing areas and on bus routes, therefore carbon emissions lower.	..... ..... ..... .....
Visual pollution by the development	..... ..... ..... .....	People living near may find the shopping centre ugly to look at.	The shopping centre will have impact on the countryside and lead to urban sprawl.

[6]

Fig. 8

(b) Suggest **two** types of out-of-town land use, other than shopping centres, which may be used by urban residents.

1 2 [2]

[Total: 8 marks]

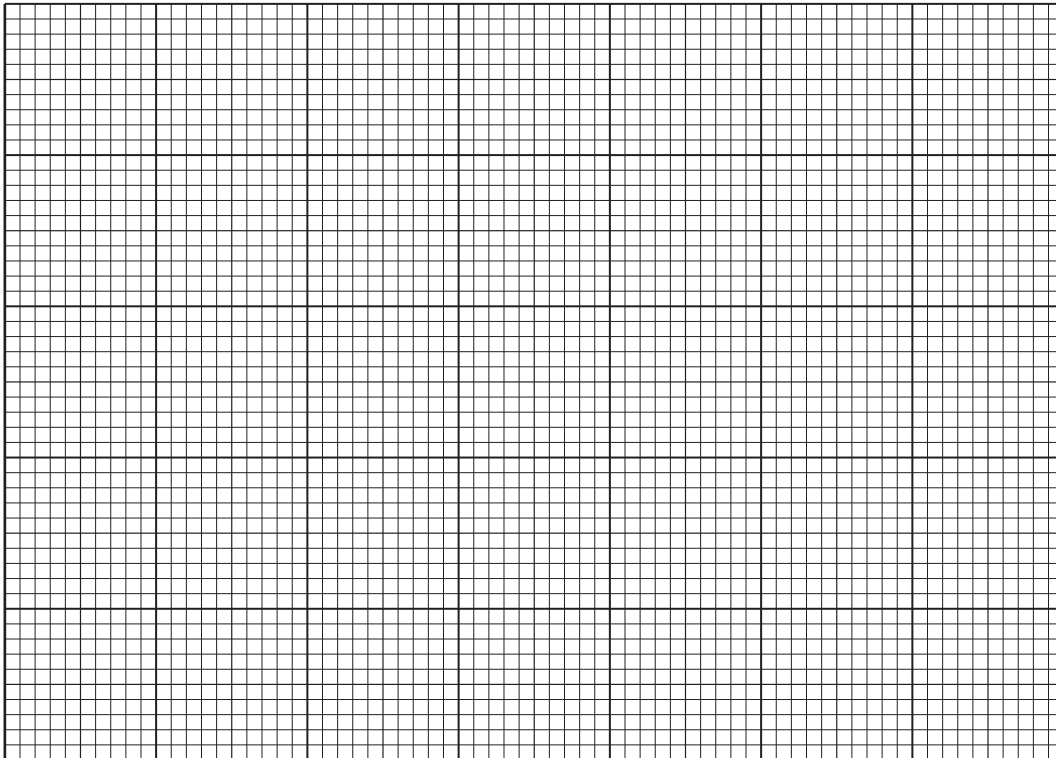
- 6 Table 1 shows the approximate number of immigrants to Australia in 10 different years.

Table 1

Year	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006
Number of immigrants (thousands)	155	125	70	45	100	80	110	115	100	135

- (a) On the graph paper below, plot an appropriate graph to show the pattern of changes shown in Table 1.

- choose appropriate scales
- label the axes, showing the units where relevant
- plot the points accurately





(b) Describe the overall pattern of changes in the number of immigrants to Australia between 1988 and 2006.

.....

.....

.....

..... [2]

[Total: 8 marks]

Copyright Acknowledgements:

Question 4 Photographs A & B D Kelly, © UCLES.

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