UNIVERSITY OF CAMBRIDGE INTERNATIONAL EX
International General Certificate of Secondary Educati

CANDIDATE NAME

CENTRE NUMBER | | | | | |

CAN NUMBER

6906232241

GEOGRAPHY **0460/22**

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 and B for Question 3, and Photographs C and 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 **13** printed pages, **3** blank pages and **1** Insert.

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1 Study the map extract, which is for Hippo Valley, Zimbabwe. The s

(a) Fig. 1 shows some of the features in the north east part of th
and the map extract, and answer the questions opposite.

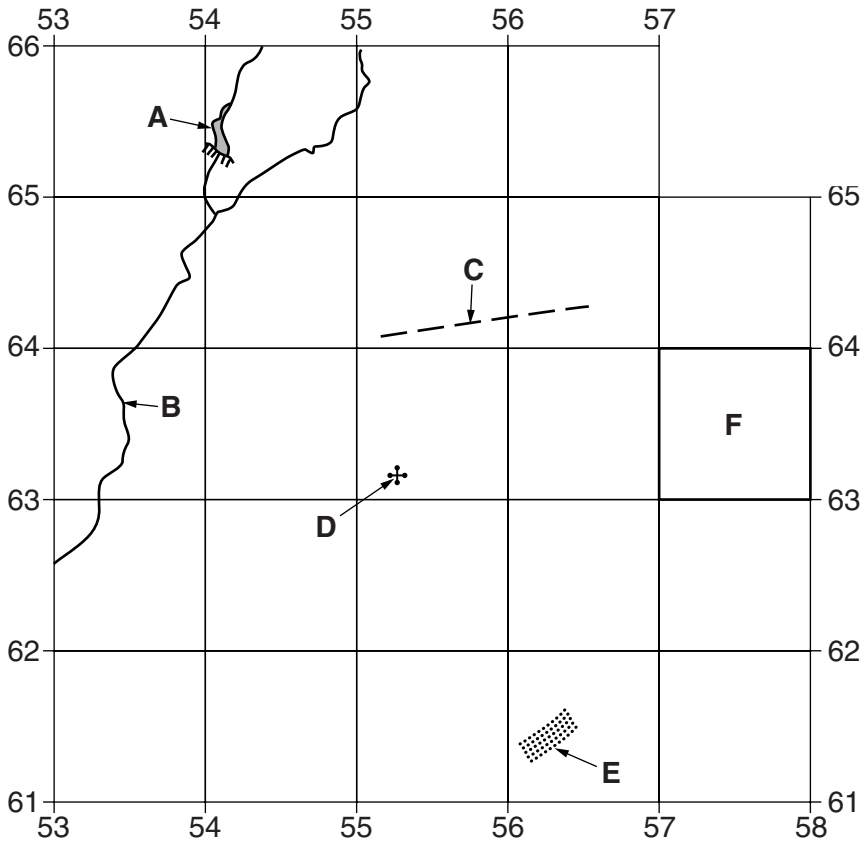


Fig. 1

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Using the map extract, identify the following features shown o

(i) feature **A**;

.....

(ii) the name of river **B**;

.....

(iii) the type of road at **C**;

.....[1]

(iv) the name of the ruins at **D**;

.....[1]

(v) feature **E**;

.....[1]

(vi) the land use in grid square **F**.

.....[1]

(b) Fig. 2 is a cross section from 500574 to 560574 (in the south of the map).



Fig. 2

On Fig. 2, using labelled arrows, mark the positions of:

(i) a swamp; [1]

(ii) the Lundi River; [1]

(iii) a pan; [1]

(iv) the west-facing slope of Bendezi Hill. [1]

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(c) Study the relief and drainage in the area north of the Lundi
(i) – **(v)** tick the correct description of this area. Tick (✓) **one**

(i)

Description	Tick (✓)
average height between 240 – 340 m	
average height between 340 – 400 m	
average height between 400 – 440 m	
average height between 440 – 500 m	

[1]

(ii)

Description	Tick (✓)
mostly flat	
mostly gentle slopes	
mostly steep slopes	
mostly cliffs	

[1]

(iii)

Description	Tick (✓)
main rivers flow west	
main rivers flow north	
main rivers flow east	
main rivers flow south	

[1]

(iv)

Description	Tick (✓)
rivers have many waterfalls	
rivers have many rapids	
rivers have many tributaries	
rivers have many distributaries	

[1]

(v)

Description	Tick (✓)
high drainage density	
low drainage density	
wide rivers	
much marsh or swamp	

[1]

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(d) Fig. 3 shows the area of wide gravel roads (shown by solid re
map.

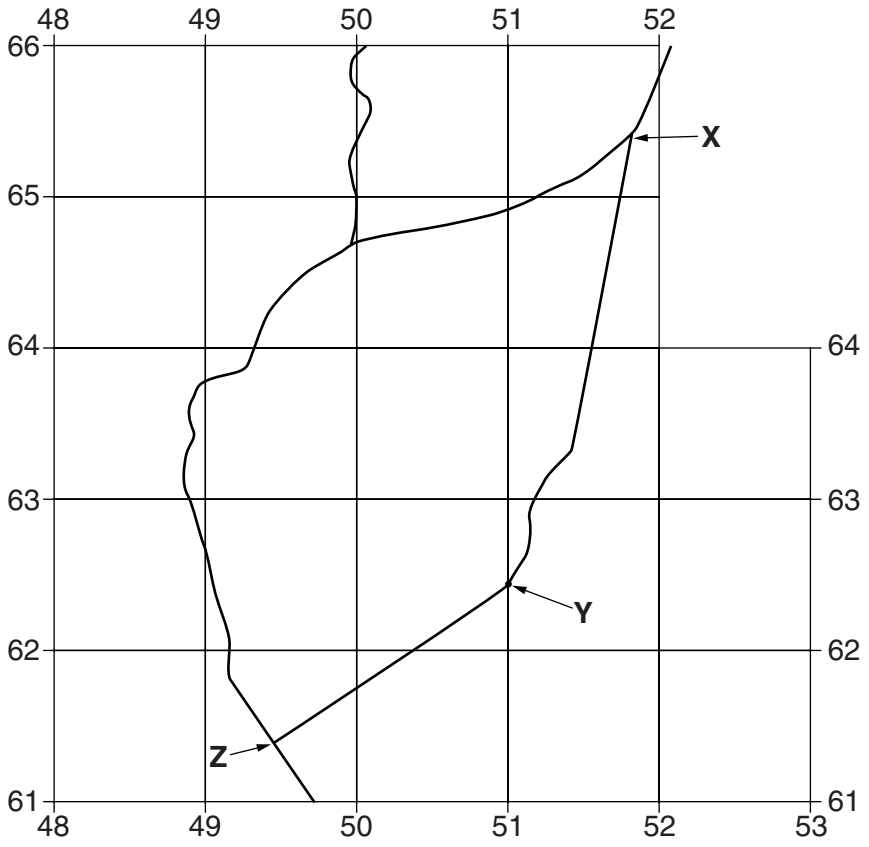


Fig. 3

(i) What is the height above sea level at point **Y**?

.....[1]

(ii) Measure the bearing in degrees from grid north, from point **Y** to point **X**.

.....[1]

(iii) What is the compass direction from point **X** to point **Z**?

.....[1]

(iv) Give the six figure grid reference of point **Z**.

.....[1]

(v) Measure the distance along the road between **X** and **Z**, going through point **Y**. Give your answer in metres.

..... metres [1]

[Total: 20 marks]

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2 Fig. 4 shows the distribution of population in China in people per s

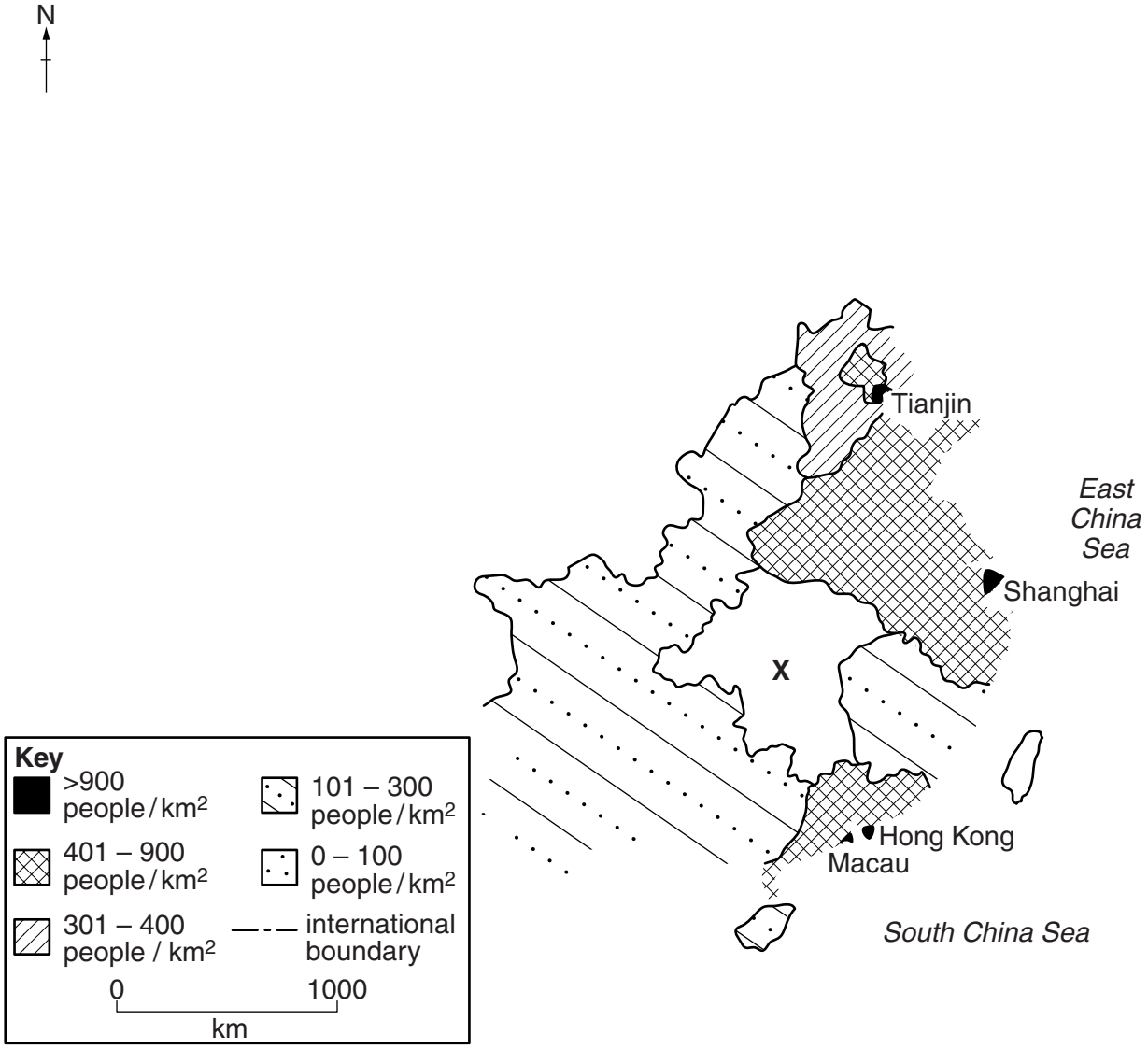


Fig. 4

(a) Find area **X** on Fig. 4. This area has a population density of 301 – 400 people per square kilometre. Using the key provided, add this information to Fig. 4. [1]

(b) Describe the distribution of population shown on Fig. 4.

.....

.....

.....

.....

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.....[3]

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(c) Fig. 5 shows the variation in height above sea level in China.

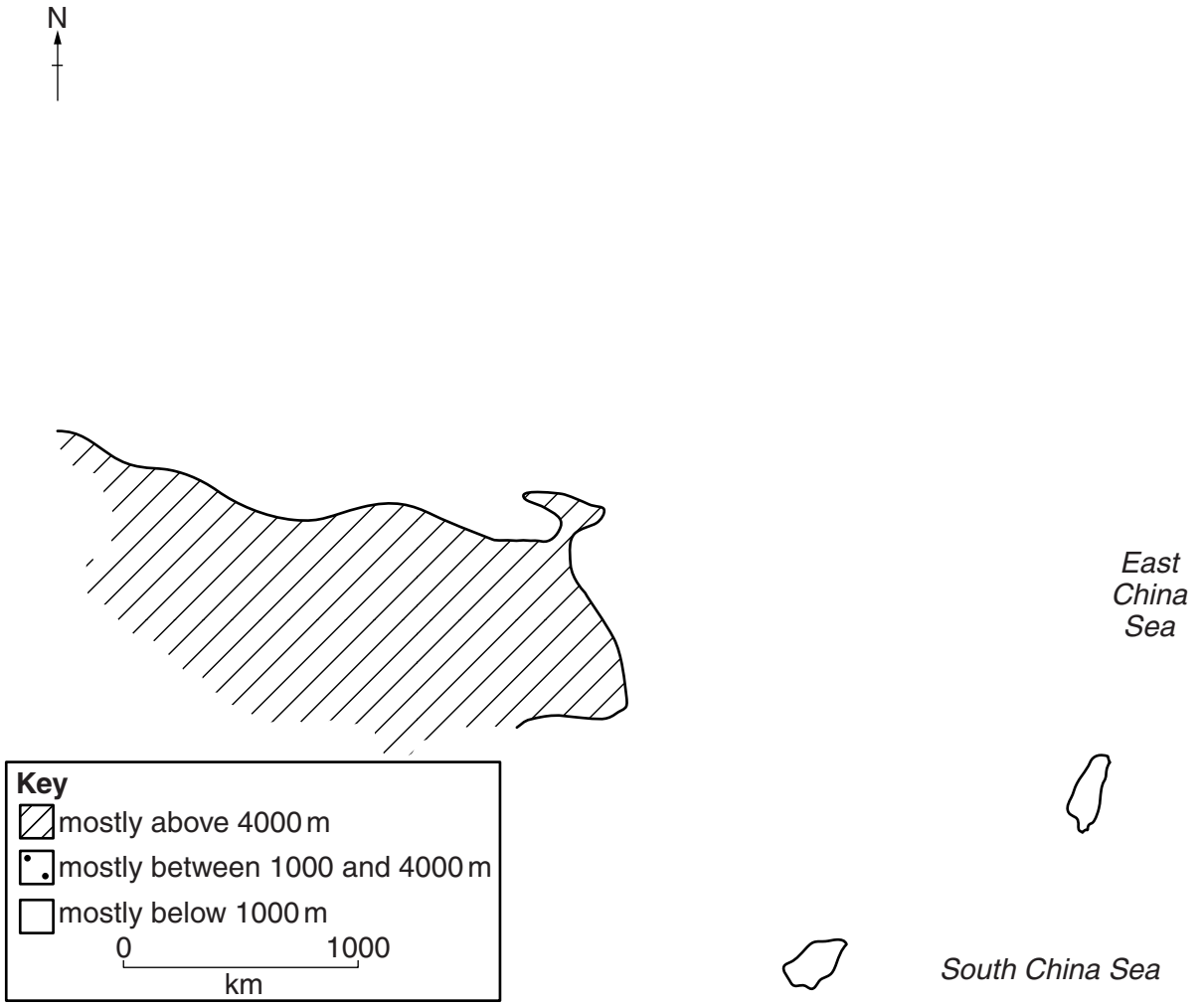


Fig. 5

(i) Describe the relationship between the population distribution shown on Fig. 4 and height above sea level shown on Fig. 5.

.....

.....

.....

.....[2]

(ii) Suggest reasons for the relationship that you have described in **(c)(i)**.

.....

.....

.....

.....[2]

[Total: 8 marks]

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3 **(a)** The coast shown in Photograph A (Insert) has a tourist ind
Photograph A **only**, explain why a tourist industry has develo

.....

.....

.....

.....

.....

.....

.....

.....[3]

(b) Photograph B (Insert) shows two coastal landforms, **Y** and **Z**, which have formed by deposition. Explain how each of these landforms was formed.

Landform **Y** .....

.....

.....

.....

.....

.....

Landform **Z** .....

.....

.....

.....

.....

.....

.....[5]

[Total: 8 marks]

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4 Figs 6, 7, 8 and 9 are cross sections through four plate margins (pl
of plate movement are shown by arrows.

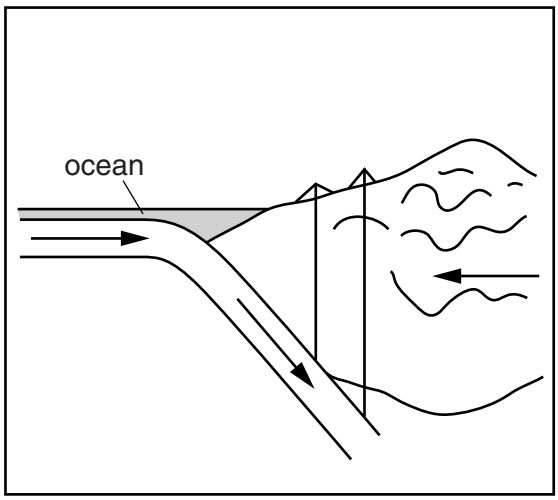


Fig. 6

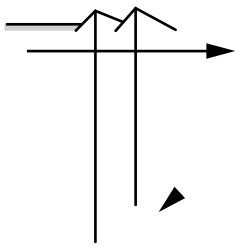


Fig. 7

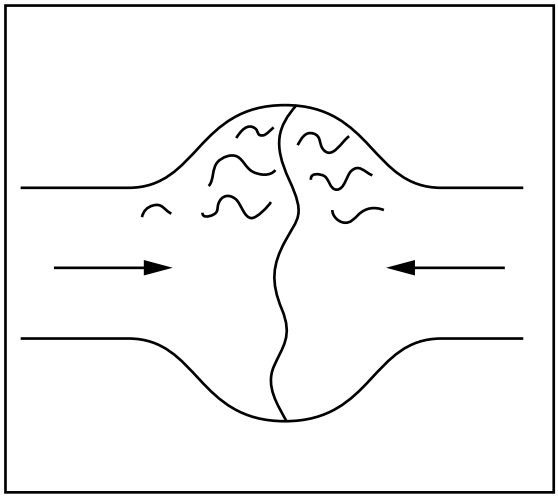


Fig. 8

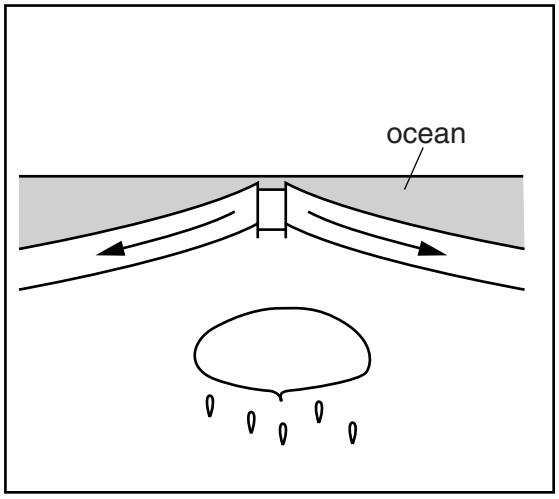


Fig. 9

(a) On Fig. 6 **only**, use labelled arrows to show the positions of:

(i) a volcano; [1]

(ii) fold mountains; [1]

(iii) the focus of an earthquake. [1]

(b) Name the type of plate boundary shown in Fig. 9. ..... [1]

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(c) Fig. 10 is a map showing the world's plates, plate margins locations, **A** – **F**, are shown.

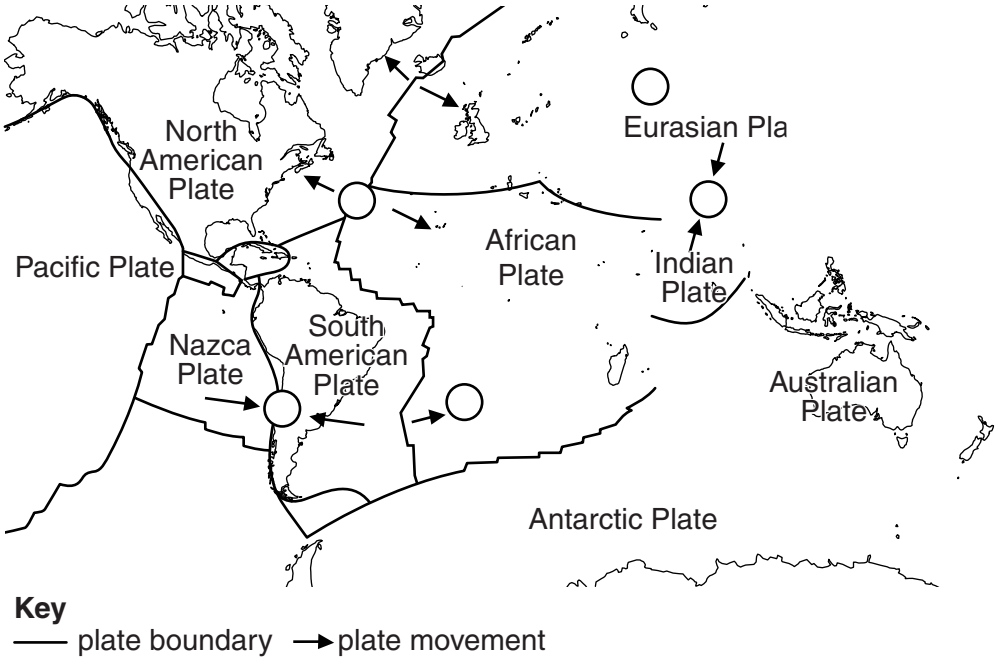


Fig. 10

For each of Figs 6, 7, 8 and 9 (opposite), identify its correct location, choosing from locations **A** – **F** on Fig. 10. Use each letter once only

Letter

Fig. 6 …….

Fig. 7 …….

Fig. 8 …….

Fig. 9 ……. [4]

[Total: 8 marks]

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5 Photographs C and D (Insert) show an area where subsistence increase the food supply.

(a) (i) Which **two** of the descriptions in the table below apply to in Photograph C? Tick (✓) **two** correct answers.

	Tick (✓)
small scale	
pastoral	
large scale	
arable	

[2]

(ii) Name **one** output of the farming system shown in Photograph C.

.....[1]

(b) Name **two** outputs of the farming system shown in Photograph D.

1 ..... 2 ..... [2]

(c) Using evidence from Photographs C and D **only**, describe **one** problem of the physical environment which will affect the decisions of the farmers.

.....

.....[1]

(d) Farmers in the area have chosen to carry out two types of farming, one shown in Photograph C and one shown in Photograph D. Suggest why they carry out both types of farming and not just one of them.

.....

.....

.....

.....

.....

.....

.....[2]

[Total: 8 marks]

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6 Carbon dioxide (CO_2) is a gas which occurs naturally but is exhausts, power stations, industrial processes and domestic heat effects but is one of the "greenhouse gases".

Fig. 11 shows carbon dioxide emissions for six countries betwe shows how carbon emissions changed over the same period.

Total carbon dioxide emissions 1997 to 2007

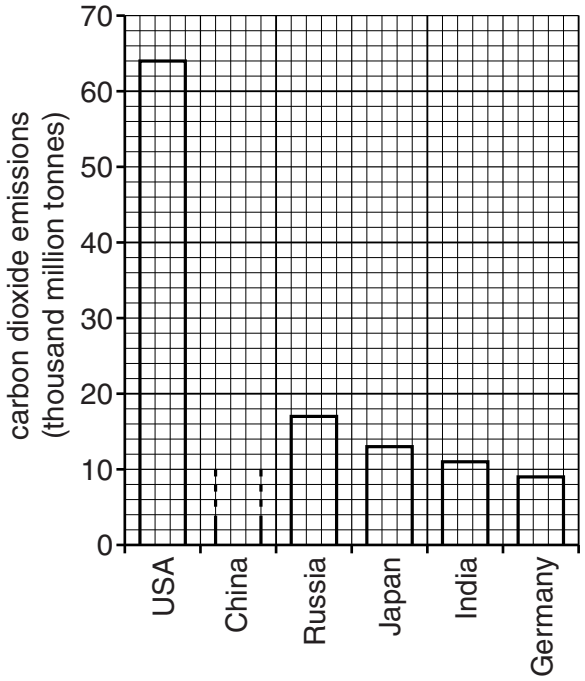


Fig. 11

Change in ca 1

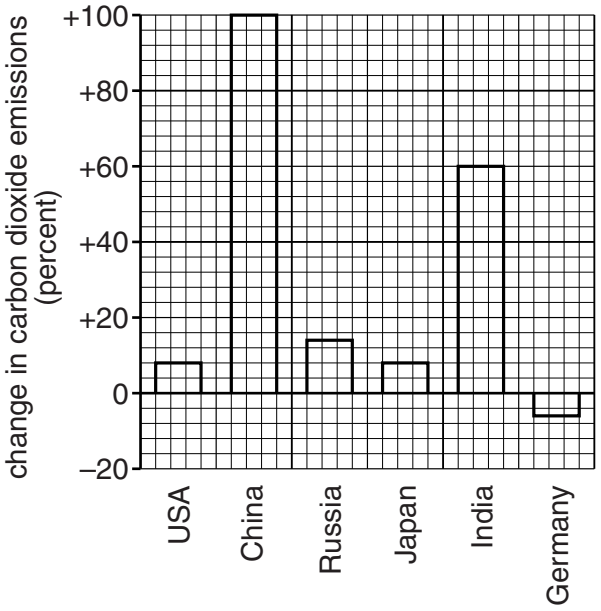


Fig. 12

(a) (i) China emitted 45 thousand million tonnes of carbon dioxide between 1997 and 2007. Plot this information on Fig. 11. [1]

(ii) How much carbon dioxide did Russia emit between 1997 and 2007?

..... thousand million tonnes [1]

(b) (i) Which **one** of the six countries decreased its carbon dioxide emissions between 1997 and 2007?

.....[1]

(ii) In 1997 China emitted 3.1 thousand million tonnes of carbon dioxide. Using information from Fig. 12, calculate how much carbon dioxide was emitted in 2007. Tick **one** correct answer below.

	Tick (✓)
3.1 thousand million tonnes	
6.2 thousand million tonnes	
9.3 thousand million tonnes	
12.4 thousand million tonnes	

[1]

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(c) Fig. 13 shows the "greenhouse effect".

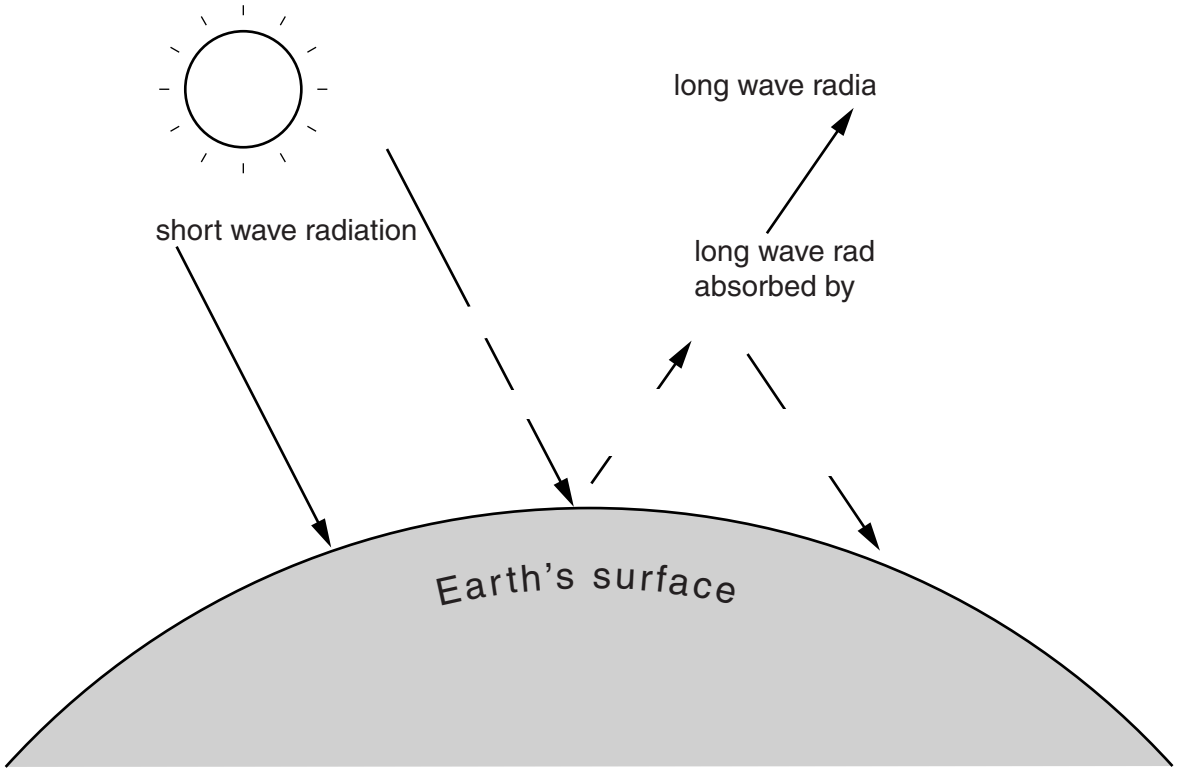


Fig. 13

Using information from Fig. 13 **only**, explain how increases in the carbon dioxide content of the atmosphere could lead to climatic changes.

.....

.....

.....

.....

.....

.....

.....

.....[4]

[Total: 8 marks]

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Copyright Acknowledgements:

Question 3 Photographs A and B	David Kelly © UCLES.
Question 5 Photographs C and D	David Kelly © UCLES.
Question 6 Figs 11 and 12	© *Total Carbon Dioxide Emissions from the Consumption of Energy*; http://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=90&pid=44&aid=8.

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