



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

CANDIDATE  
NAME

CENTRE  
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**GEOGRAPHY**

**0460/13**

Paper 1

**October/November 2013**

**1 hour 45 minutes**

Candidates answer on the Question Paper.

Additional Materials:      Calculator  
                                         Protractor

**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.

Write your answer to each question in the space provided. If additional space is required, you should use the lined page at the end of this booklet. The question number(s) must be clearly shown.

Answer **three** questions.

The Insert contains Fig. 4 for Question 2 and Photographs A, B and C for Question 6.

The Insert is **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**

|              |  |
|--------------|--|
| <b>Q1</b>    |  |
| <b>Q2</b>    |  |
| <b>Q3</b>    |  |
| <b>Q4</b>    |  |
| <b>Q5</b>    |  |
| <b>Q6</b>    |  |
| <b>Total</b> |  |

This document consists of **24** printed pages, **4** blank pages and **1** Insert.



## QUESTION 1

For  
Examiner's  
Use

- (a) Study Fig. 1, which shows information about the birth and death rates of Zambia (LEDC) and Italy (MEDC) in 2011.

| Country | Birth rate (per 1000 of population) | Death rate (per 1000 of population) |
|---------|-------------------------------------|-------------------------------------|
| Zambia  | 44.1                                | 16.6                                |
| Italy   | 9.2                                 | 9.8                                 |

Fig. 1

- (i) What evidence in Fig. 1 suggests that Italy had a natural population decrease in 2011?

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

- (ii) Calculate the natural population growth rate of Zambia.  
 You must show your calculations.

Natural population growth rate = ..... per 1000

[2]

- (iii) Give **three** reasons why there are high death rates in LEDCs such as Zambia.

1 .....  
 .....  
 2 .....  
 .....  
 3 .....  
 ..... [3]

- (iv) Explain why there are low birth rates in MEDCs such as Italy.

For  
Examiner's  
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- (b) Study Fig. 2, which shows a population pyramid for Zambia (an LEDC in Africa).

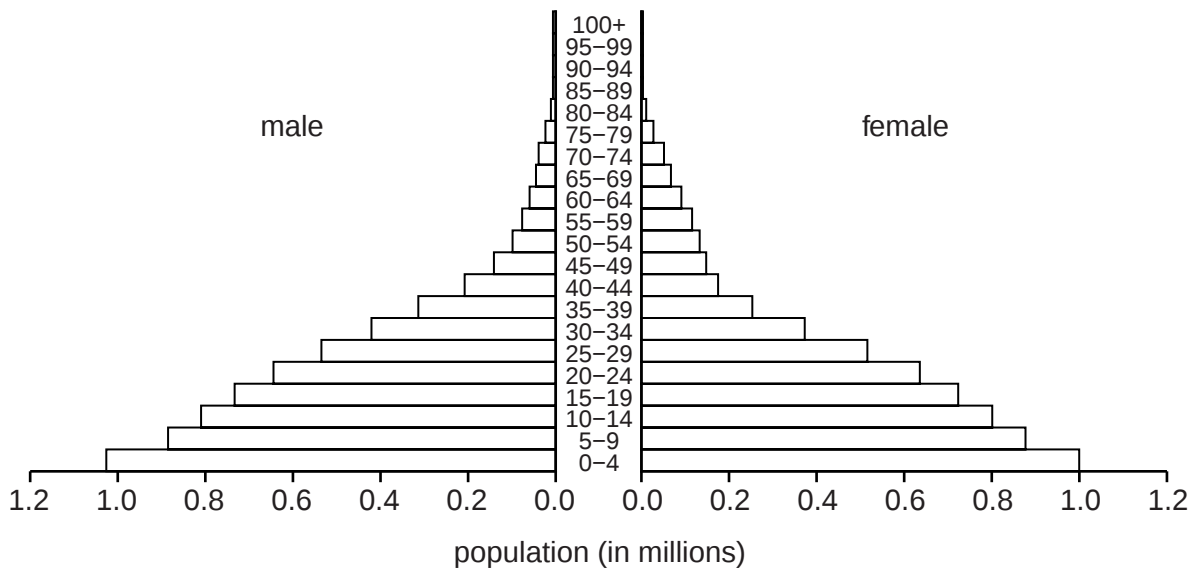


Fig. 2

- (i) Suggest **three** ways in which the population pyramid for an MEDC is likely to be different from the population pyramid for Zambia (LEDC).

1 .....

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2 .....

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3 .....

..... [3]

- (ii) Describe the likely problems for an LEDC of having many young dependents.

For  
Examiner's  
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- (c) For a named example of a country you have studied, describe the policy or policies used by the government to reduce birth rates.

Name of country .....

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[Total: 25 marks]

**END OF QUESTION 1**

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## QUESTION 2

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(a) Study Fig. 3, which shows information about two residential areas in a city in an MEDC.

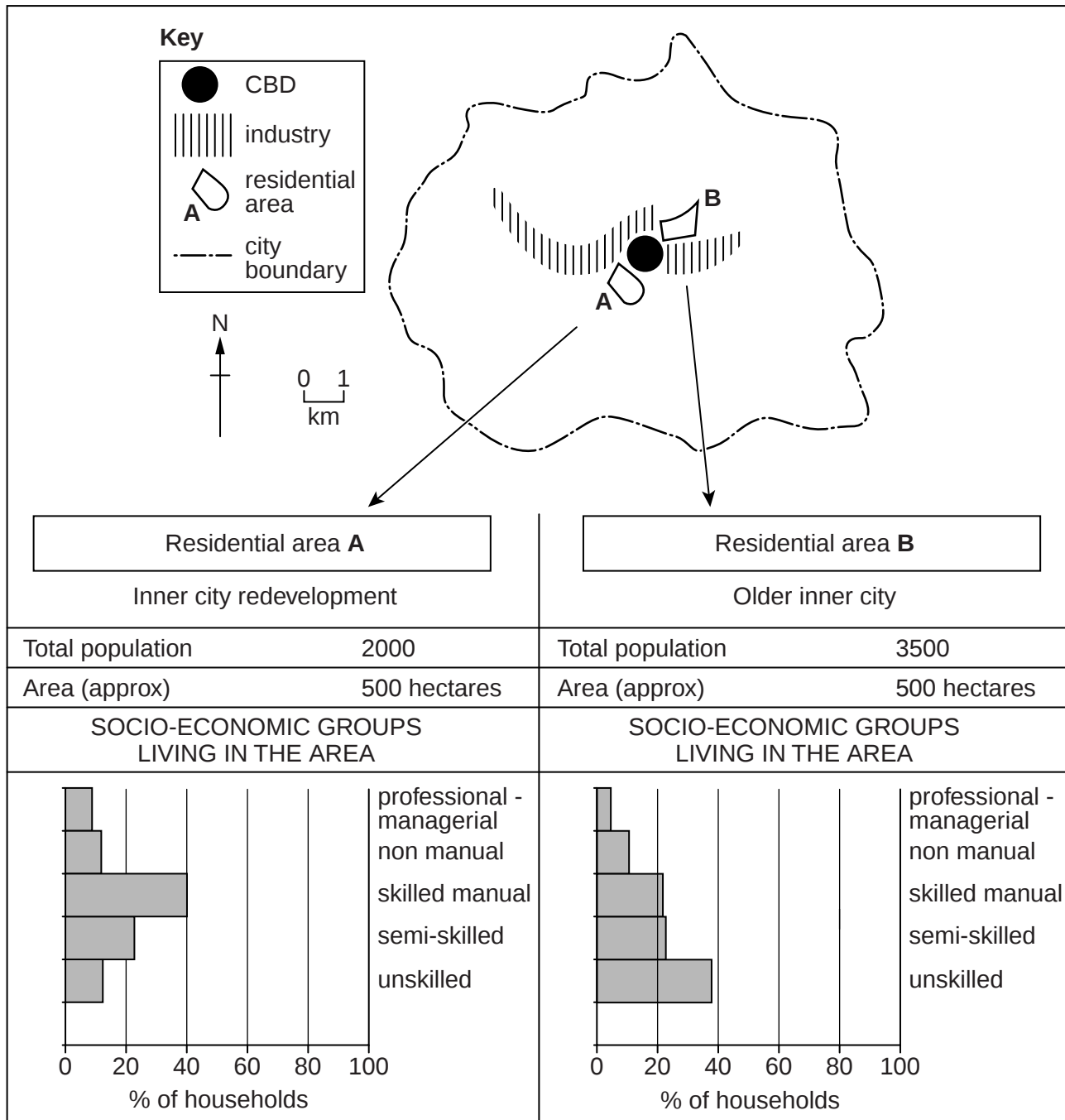


Fig. 3

(i) What is meant by the term *residential area*?

.....

..... [1]

(ii) Which of the residential areas **A** or **B**:

is the most densely populated;

has the newest houses?

Give reasons for your choices.

Most densely populated area .....

Reason .....

.....

Area with newest houses .....

Reason .....

..... [2]

(iii) Using Fig. 3 **only**, identify **three** differences between the numbers of people from each socio-economic group who live in areas **A** and **B**.

1 .....

.....

2 .....

.....

3 .....

..... [3]

(iv) State **two** advantages and **two** disadvantages of living in an inner city area in an MEDC.

Advantage 1 .....

.....

Advantage 2 .....

.....

Disadvantage 1 .....

.....

Disadvantage 2 .....

..... [4]

- (b) Study Fig. 4 (Insert), which shows land use in part of Austin, Texas, which is in the USA (MEDC).

For  
Examiner's  
Use

- (i) Identify **three** non-residential types of land-use north of Slaughter Lane and east of Manchaca Road.

1 .....

2 .....

3 .....

[3]

- (ii) There is a proposal to convert a vacant property in Manchaca Road into a cinema. Explain why some local people may support this change but others will oppose it.

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- For  
Examiner's  
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[Total: 25 marks]

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## QUESTION 3

For  
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Use

(a) Study Fig. 5, a map which shows major plates and some fold mountains.

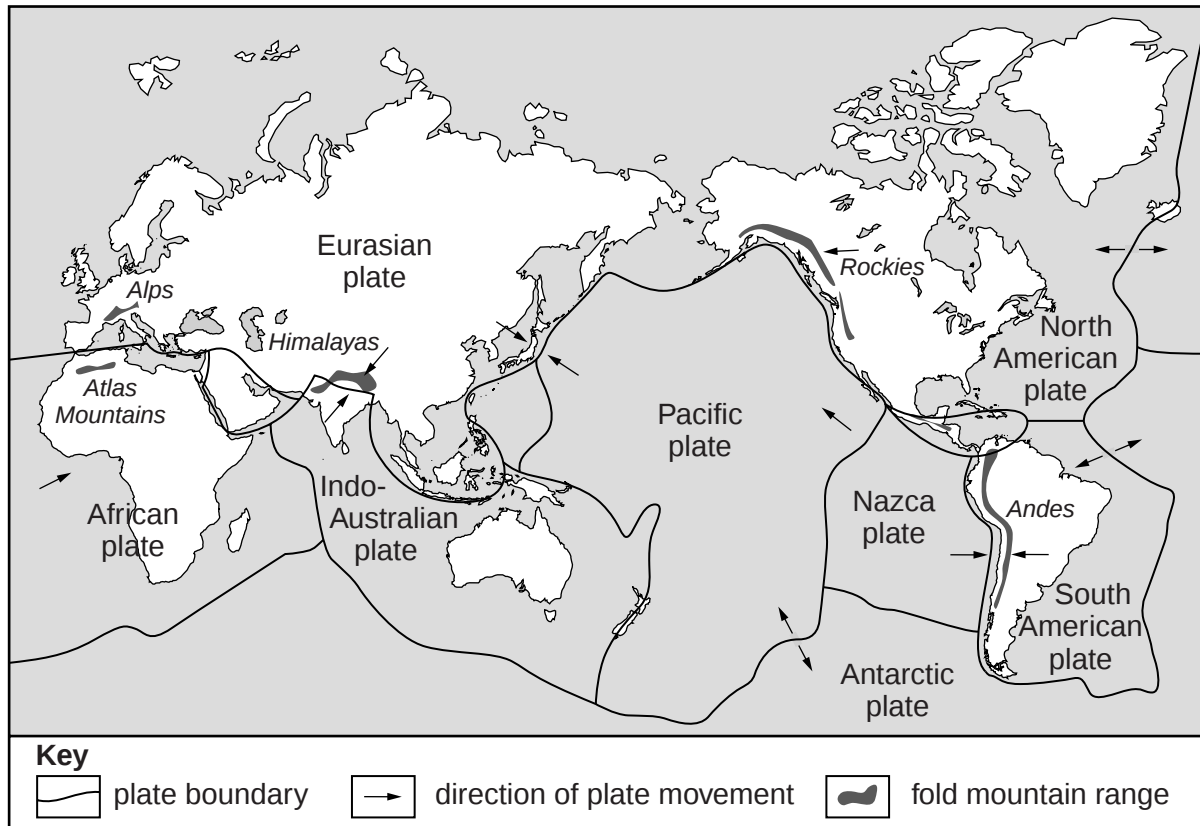


Fig. 5

(i) What is meant by *fold mountains*?

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

(ii) Use Fig. 5 to name the **two** plates which are moving towards each other forming the Andes.

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

- (iii) Explain how fold mountains are formed in some areas where plates are moving towards each other.

For  
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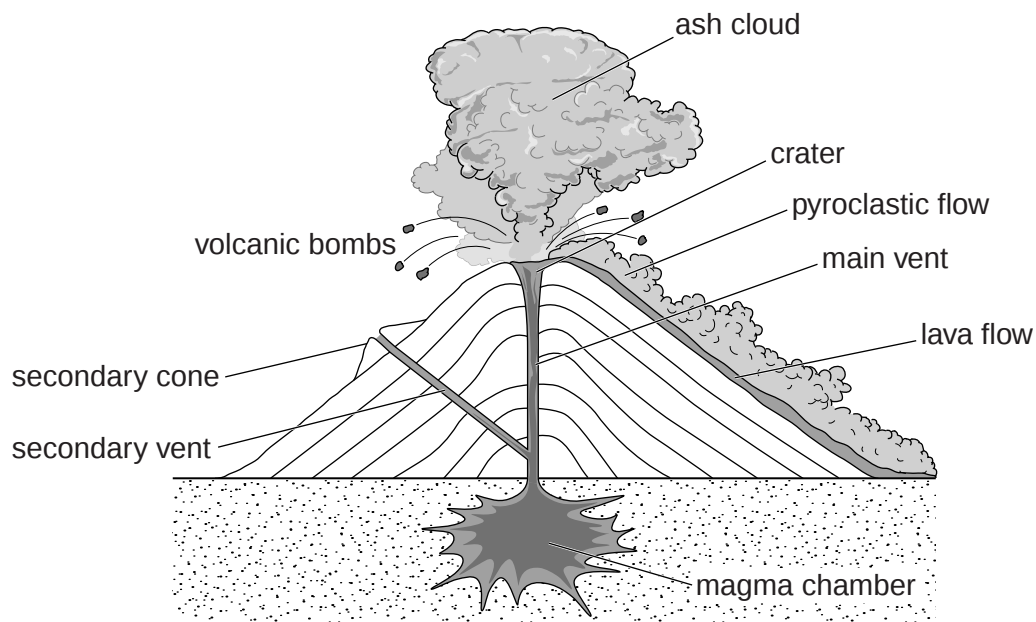
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..... [3]

- (b) Study Fig. 6, which shows the main features of an active volcano.



**Fig. 6**

- (i) Using ideas from Fig. 6, describe **three** different hazards which an active volcano may cause for people.

1 .....

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..... [3]

- (ii) Explain why there are active volcanoes along destructive plate boundaries.

For  
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- (iii) Explain how an area of volcanic activity can provide opportunities for people living there.

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**(c)** For a named area which you have studied, describe the impacts of an earthquake.

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[illegible]

[Total: 25 marks]

**END OF QUESTION 3**

## QUESTION 4

For  
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Use

- (a) Study Fig. 7, an extract from the diary of a sailor.

As we left the harbour at 09.00 hrs on the 29th July the sky was almost clear, with just a few wispy, feather-like clouds. There was a strong westerly wind, but the temperatures were warm.

By 14.00 hrs the wind speed had dropped and it was blowing from the north west. Temperatures had fallen several degrees and very tall, dome-shaped clouds with dark bases had formed. The visibility was getting less.

As the rain started to fall we sailed back home but by the time we reached the harbour we were very wet.

Fig. 7

- (i) What is meant by *westerly* wind?

..... [1]

- (ii) Suggest what the cloud type was at 09.00 hrs and 14.00 hrs.

Choose from the following list:

cirrus                  cumulonimbus                  cumulus                  stratus

09.00 .....

14.00 ..... [2]

- (iii) Identify **three** differences in the weather between the morning and the afternoon of 29th July.

1 .....

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2 .....

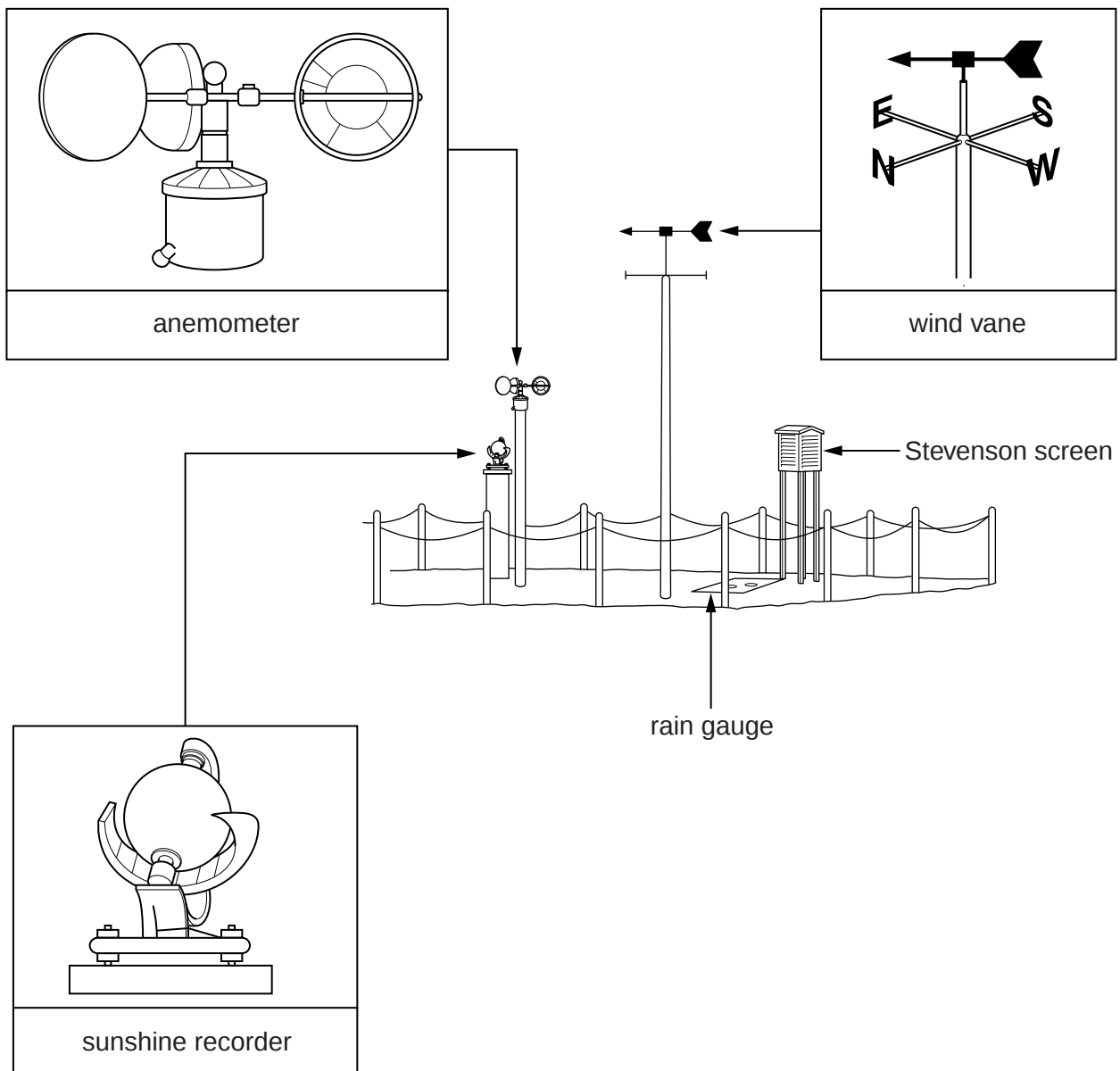
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3 .....

..... [3]

(b) Study Fig. 8, which shows a weather station and some of the instruments used in it.

For  
Examiner's  
Use



**Fig. 8**

(i) What is measured by the following instruments?

anemometer .....

wind vane .....

sunshine recorder ..... [3]

- (ii) Describe and explain where a weather station should be located in order to obtain accurate data.

For  
Examiner's  
Use

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- (iii) Describe the main features of a rain gauge and explain how it is used.  
You may use labelled diagrams in your answer.

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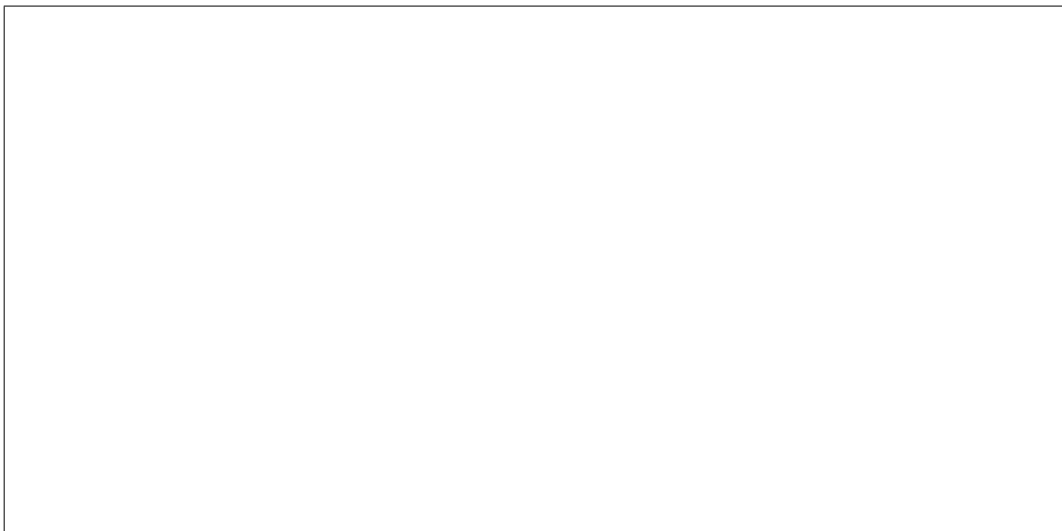
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[5]

(c) Choose an example of **one** of the following types of weathering:

- freeze-thaw weathering;
- exfoliation;
- biological weathering.

Explain how your chosen weathering process occurs.  
Use labelled diagrams in your answer.

Type of weathering process .....

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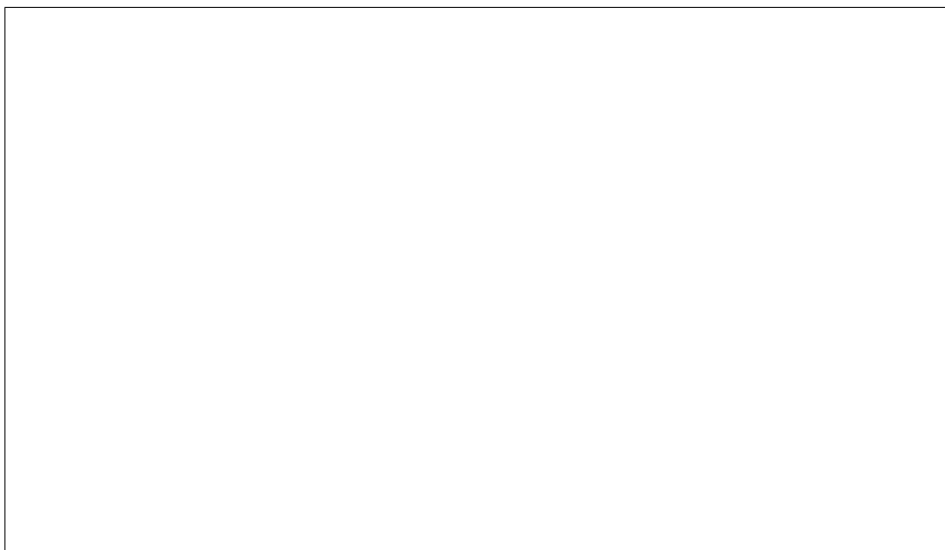
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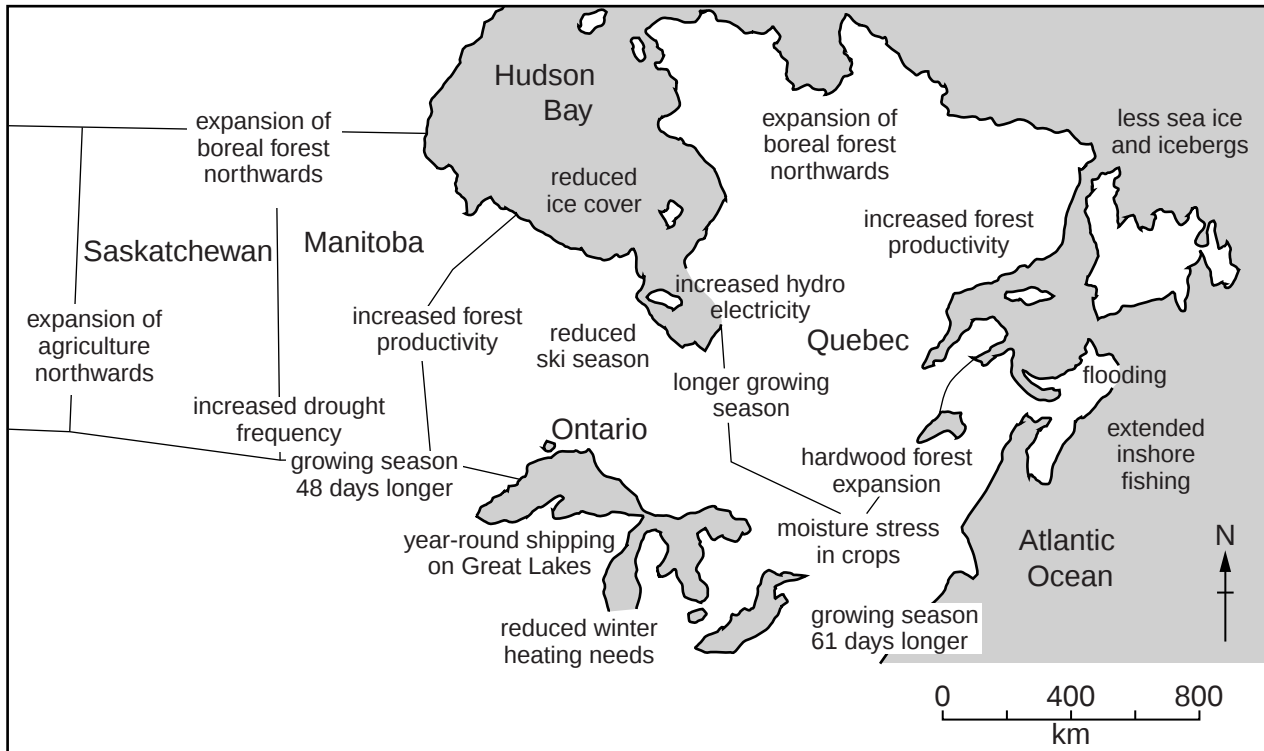
[7]

[Total: 25 marks]

**END OF QUESTION 4**

**QUESTION 5**For  
Examiner's  
Use

- (a) Study Fig. 9, which shows information about the possible impacts of climate change in northern and eastern Canada. Climate change could be caused by an increase in greenhouse gases in the atmosphere.

**Fig. 9**

- (i) Name one greenhouse gas.

.....

[1]

- (ii) Identify from Fig. 9 a way in which climate change might:

reduce energy demand;

.....  
 .....

increase energy supply.

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

- (iii) Identify **three** ways in which climate change might affect agricultural systems around the world.

For  
Examiner's  
Use

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- (iv) Describe the possible impacts of climate change on the natural environment.

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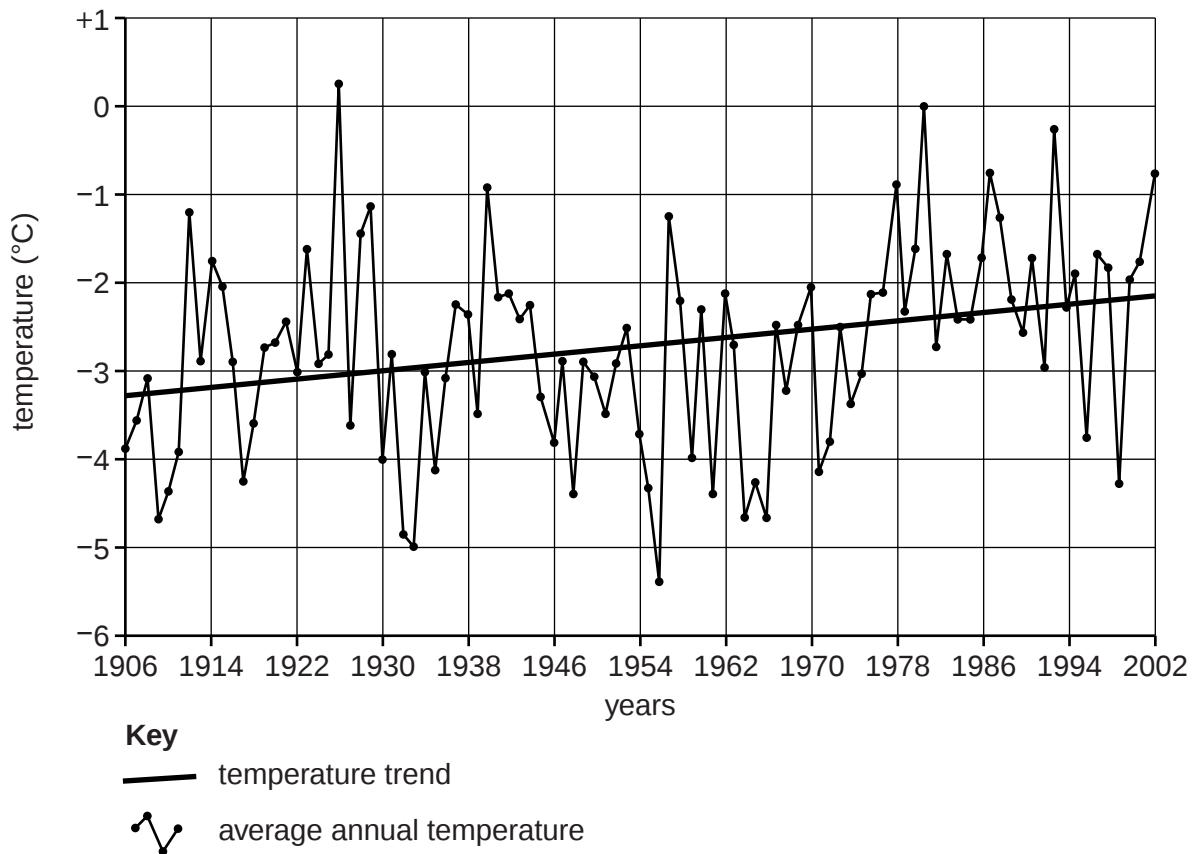
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(b) Study Fig. 10, a graph which shows average annual temperatures at Fairbanks, Alaska.

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**Fig. 10**

- (i) Describe the changes in the average annual temperature in Fairbanks between 1906 and 2002. Refer to statistics and years in your answer.

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..... [3]

- (ii) Many scientists believe that global changes in temperature are due to the increase of greenhouse gases.

Explain why greenhouse gases are increasing in the atmosphere.

For  
Examiner's  
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- (c) For a named river, sea or lake which you have studied, describe the causes of water pollution.

Name of river, lake or sea .....

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[Total: 25 marks]

**END OF QUESTION 5**

## QUESTION 6

For  
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(a) Study Fig. 11, which shows information about the costs and benefits of tourism.

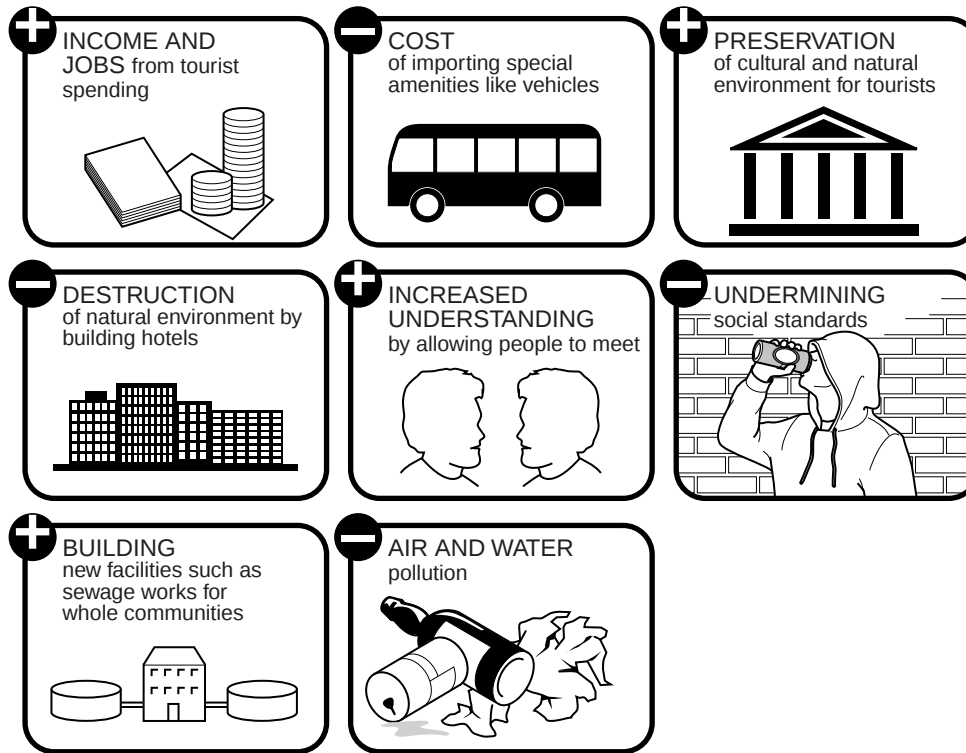


Fig. 11

(i) Give one example of a job in the tourist industry.

..... [1]

(ii) Using Fig. 11 **only**, identify one environmental cost and one environmental benefit of the tourist industry.

Environmental cost .....

.....

Environmental benefit .....

..... [2]

- (iii) Use Fig. 11 and your own ideas to explain how tourism can 'undermine social standards'.

For  
Examiner's  
Use

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..... [3]

- (iv) Many people who live in areas where tourism is important are not directly employed in the tourist industry. Explain how they might still benefit from tourism.

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..... [4]

- (b) Study Photographs A, B and C (Insert), which were taken on the island of Mauritius (LEDC in the Indian Ocean).

- (i) Use evidence from each photograph to give different reasons why Mauritius is attractive to tourists.

Photograph A .....

.....

Photograph B .....

.....

Photograph C .....

..... [3]

For  
Examiner's  
Use

- (ii)** Explain why it is easier to develop tourism than manufacturing industry in LEDCs.

[5]

- (c)** For a named area which you have studied where the tourist industry is important, describe what has been done in the area to conserve the natural environment.

Name of area .....

[7]

[Total: 25 marks]

**END OF QUESTION 6**

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*Copyright Acknowledgements:*

|                    |                                                                                                                                     |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Question 2 Fig. 4  | © Austin, Texas Landuse Map; <a href="http://bluntproperties.com/monarch">http://bluntproperties.com/monarch</a> ; 17 October 2011. |
| Question 4 Fig. 8  | © amended: G Cambers & S Currie; <i>Geography for Avery Hill Teacher's Resource Pack</i> ; Heinemann.                               |
| Question 5 Fig. 9  | © Geography Magazine; 1991.                                                                                                         |
| Question 6 Fig. 11 | © <i>WWF Data Support Sheet</i> , 14 June 1991.                                                                                     |

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