UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE NAME

CENTRE NUMBER | | | | | |

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**GEOGRAPHY** **0460/23**

Paper 2 **October/November 2011**

**1 hour 30 minutes**

Candidates answer on the Question Paper.

Additional Materials: Ruler
Protractor
Plain paper

1:25 000 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 2 and Photograph B for Question 5.
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** The map extract is for Souillac, Mauritius. The scale is 1: 25 000.

For Examiner's Use

**(a)** Fig. 1 shows the positions of some features in the centre of the map extract.

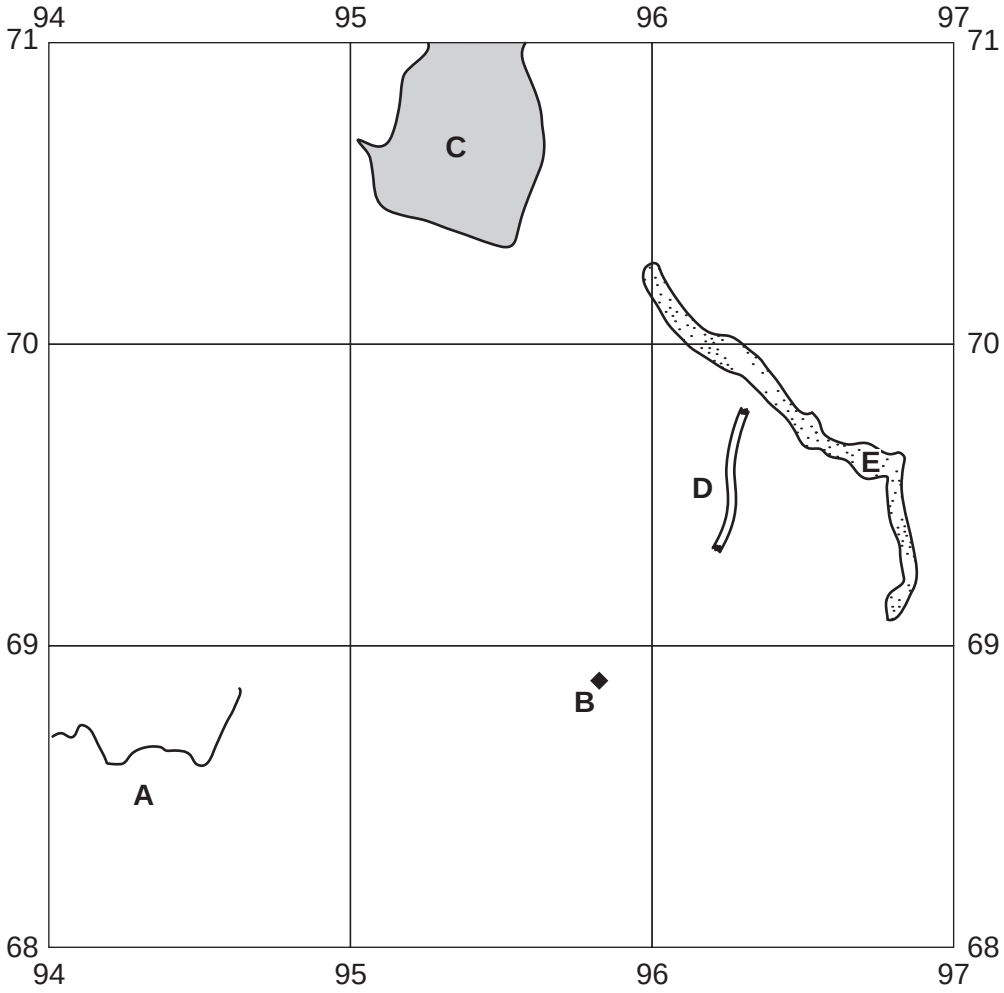


**Fig. 1**

Study the map and identify the following features shown on Fig. 1:

*For Examiner's Use*

**(i)** the name of the river at **A**;

.....[1]

**(ii)** the public building at **B**;

.....[1]

**(iii)** the land use at **C**;

.....[1]

**(iv)** the type of road at **D**;

.....[1]

**(v)** the natural vegetation at **E**.

.....[1]

**(b)** Describe the physical features of the coastline in the area of the map extract.

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.....[5]

**(c)** Describe the drainage of the area shown in Fig. 2 in the north west of the map.

For Examiner's Use

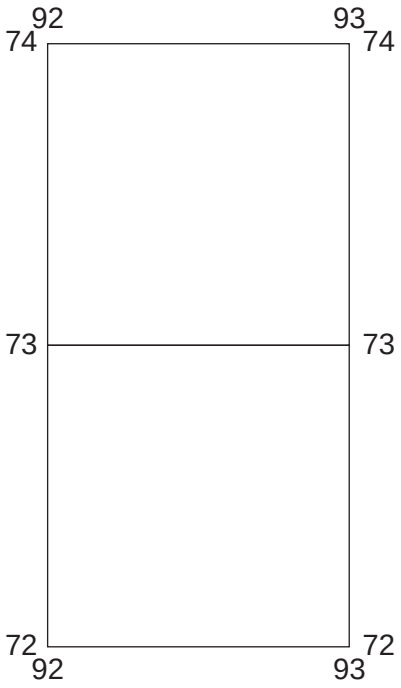


**Fig. 2**

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.....[3]

**(d)** Fig. 3 shows roads in grid squares 9965 and 0065.

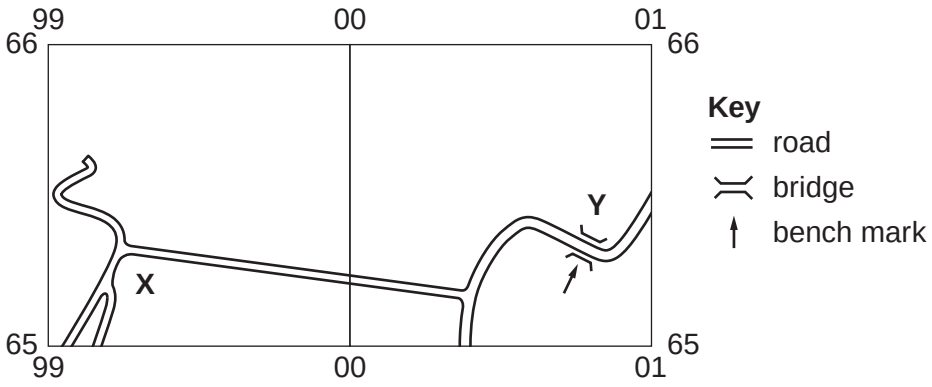


**Fig. 3**

**(i)** Complete Table 1, using the map extract to obtain your answers.

*For Examiner's Use*

**Table 1**

| | |
|---|---|
| height of bench mark by the bridge (**Y**) at 007653 (to the nearest whole number) | ……..... metres |
| height of road junction (**X**) at 992652 | 40 metres |
| difference in height between **X** and **Y** (to the nearest whole number) | ……..... metres |

[1]

**(ii)** Measure the shortest distance in metres **along the roads** between **X** and **Y**. Circle the nearest distance to your answer in metres from the choices below.

1600 1650 1700 1750 [1]

**(iii)** Use your answers to **(i)** and **(ii)** to calculate the approximate gradient along the road between **X** and **Y**. Circle the nearest gradient to your answer from the choices below.

1 in 65 1 in 100 1 in 135 1 in 170 [1]

**(e)** Explain why a settlement has grown at Chemin Grenier (grid squares 9367, 9467 and 9468).

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..... [4]

[Total: 20 marks]

**2** **(a)** Study Fig. 4, which is a map of the land use zones of a city in an MEDC, together with Photograph A (Insert) showing part of the city.

*For Examiner's Use*

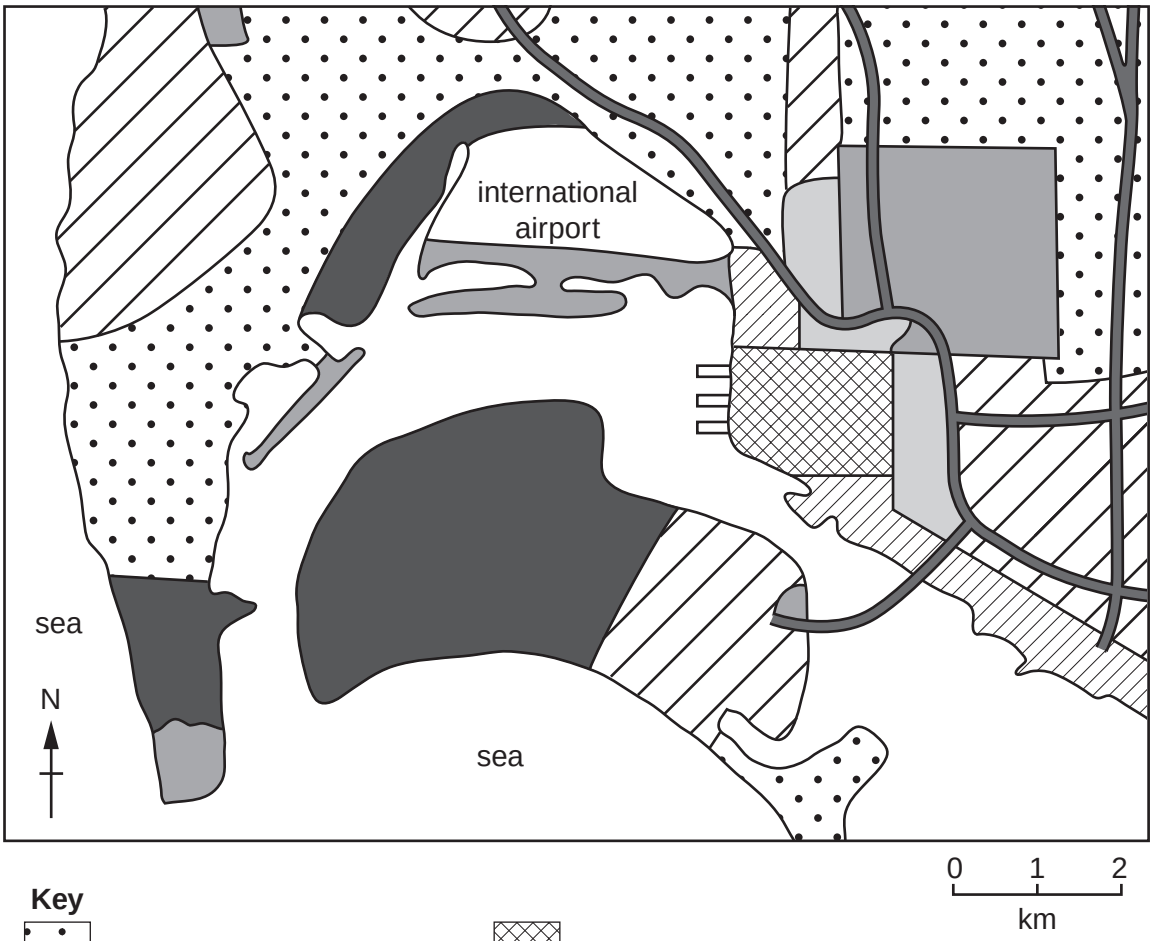


**Fig. 4**

**(i)** Which land use zone on Fig. 4 does Photograph A show?

.....[1]

**(ii)** Describe the characteristics of the area shown on Photograph A which support your answer.

*For Examiner's Use*

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..... [3]

**(b)** Use Fig. 4 to explain:

**(i)** why its site led to the city's growth as an important seaport;

.....

.....

.....

.....[2]

**(ii)** **one** advantage of the location of the airport;

.....

.....

.....[1]

**(iii)** **one** disadvantage of the location of the airport.

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.....[1]

[Total: 8 marks]

**3** **(a)** Fig. 5 gives information about textile production in India from 2001 to 2008.

*For Examiner's Use*

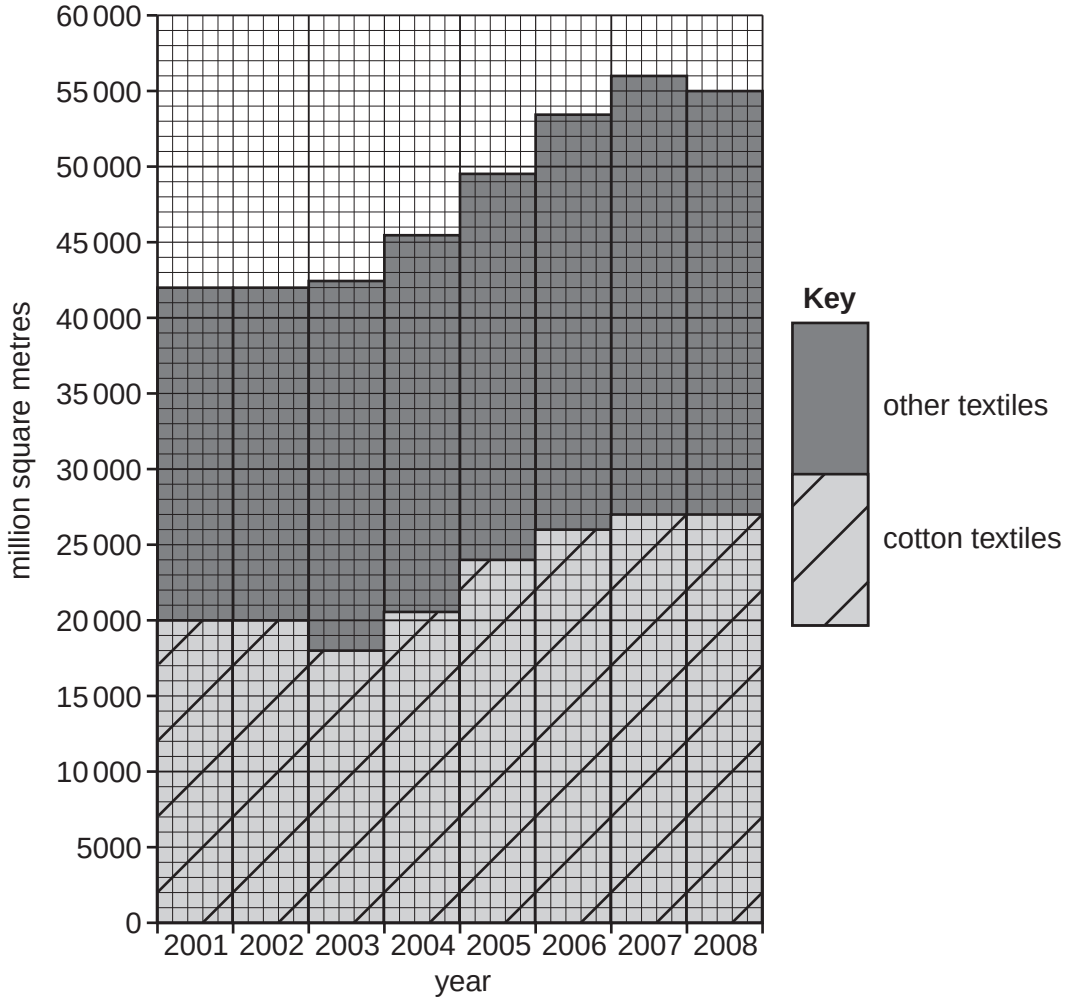


**Fig. 5**

**(i)** Describe the general trend of Indian textile production.

.....[1]

**(ii)** What proportion of the total Indian textile production in 2008 was cotton?

.....[1]

**(iii)** In which year did cotton textile production decrease?

..... [1]

**(iv)** What was the highest production of cotton textiles over the period shown?

..... million square metres [1]

**(b)** Fig. 6 gives information about factors required by cotton textile manufacturing, and Fig. 7 is a section across a part of India showing the position of Mumbai, a major cotton textile manufacturing city.

For Examiner's Use

**Cotton textile manufacturing requirements**

- a supply of raw cotton from the cotton fields
- power to work the machinery
- a humid atmosphere so that the threads do not break during spinning
- a large, skilled labour force

**Fig. 6**

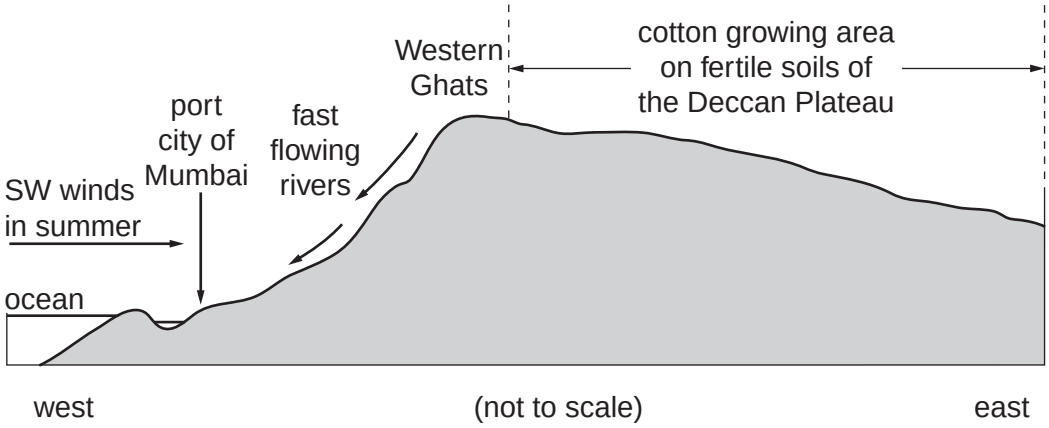


**Fig. 7**

Use Figs 6 and 7 to explain why Mumbai is a good location for cotton textile manufacturing.

Advantage 1 .....

.....

Advantage 2 .....

.....

Advantage 3 .....

.....

Advantage 4 .....

.....[4]

[Total: 8 marks]

**4** **(a)** Fig. 8, shows the magnitudes (power) of some of the strongest earthquakes in Europe in the period 1900 to 2000 and the number of deaths they caused.

*For Examiner's Use*

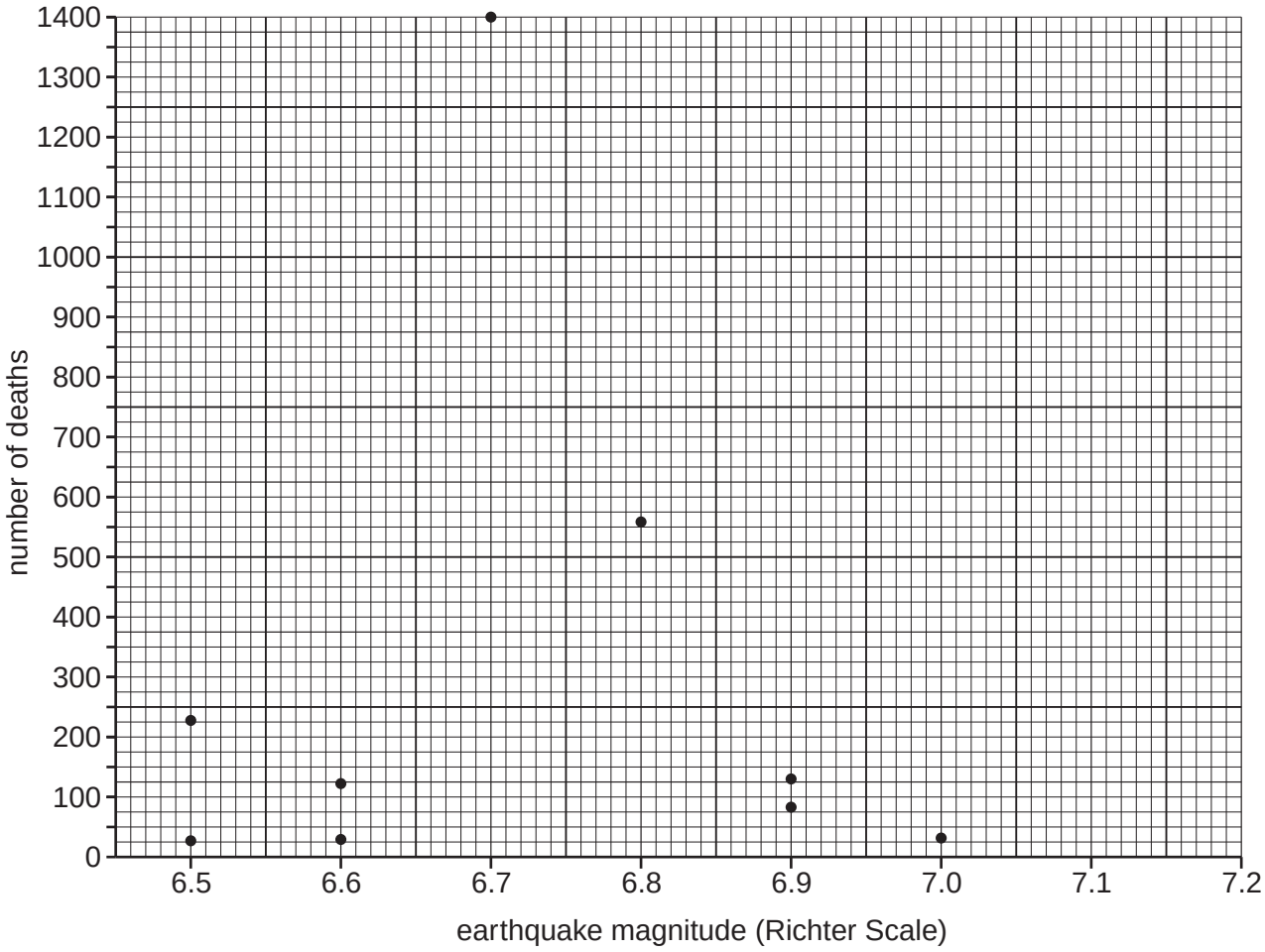


**Fig. 8**

**(i)** What is the highest number of deaths recorded on Fig. 8?

.....[1]

**(ii)** Details of four other earthquakes are shown in Table 2 below. Add to Fig. 8 the plot for the earthquake with a magnitude of 7.2 and a death toll of 800. [1]

**Table 2**

| magnitude | deaths |
|---|---|
| 7.2 | 800 |
| 6.7 | 2483 |
| 7.0 | 32 610 |
| 7.1 | 82 000 |

**(iii)** Explain why the **other** earthquakes listed in Table 2 were not plotted on Fig. 8.

For Examiner's Use

.....

.....[1]

**(iv)** Circle the description which best describes the relationship between the magnitude of the earthquakes and the number of deaths shown on Fig. 8.

positive relationship  no relationship  negative relationship  [1]

**(b)** Fig. 9 is a time-line of the earthquakes with the largest magnitudes in Europe during the period 1900 to 2000.

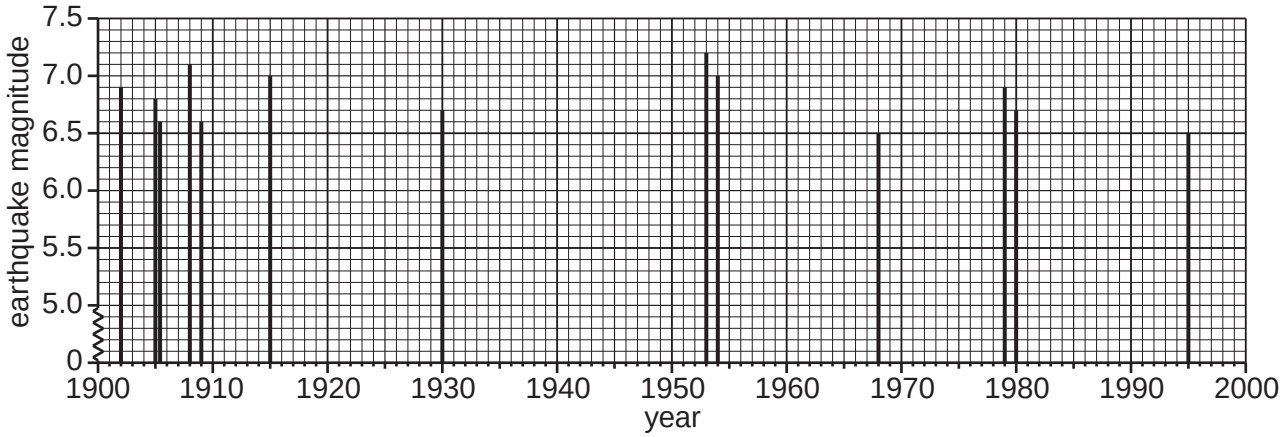


**Fig. 9**

**(i)** State the highest magnitude of the earthquakes recorded on Fig. 9.

.....[1]

**(ii)** How many of the earthquakes on Fig. 9 had a magnitude of 6.8?

.....[1]

**(iii)** When was the longest period without any earthquakes with a magnitude of 6.5 or higher?

from ..... to ……[1]

**(iv)** Circle the decade with the highest frequency of earthquakes with a magnitude of 6.5 and higher.

1900–1910  1910–1920  1950–1960  1970–1980  [1]

[Total: 8 marks]

**5** **(a)** Study Photograph B (Insert), which shows an area of tropical rainforest.

*For Examiner's Use*

Describe the characteristics of the vegetation which can be seen in Photograph B.

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.....[4]

**(b)** Study Figs 10 and 11, which give some information about the climate of the area in which the photograph was taken.

Some rainfall is evaporated by the heat. This means that it changes from liquid to gas and is returned to the atmosphere as water vapour. If there is more rainfall than evaporation, water will be available to enter the soil and to be taken up by plants. Heat and soil moisture are both essential for healthy plant growth.

**Fig. 10**

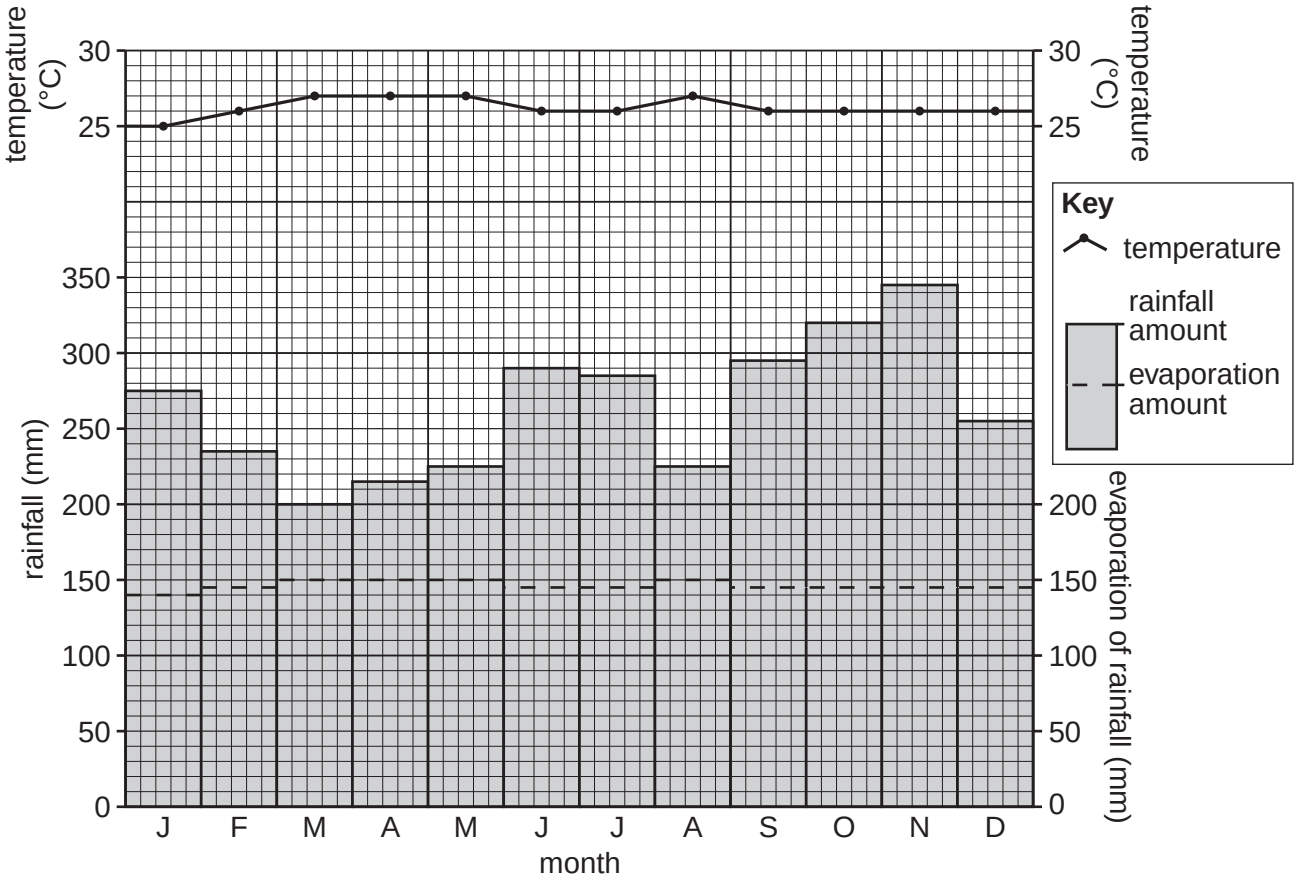


**Fig. 11**

With the aid of information in Figs 10 and 11, complete the record below of the climatic conditions which lead to the growth of forest by:

**(i)** **estimating** the mean annual temperature of the area;

..... °C [1]

**(ii)** calculating by how much the rainfall is greater than the evaporation in the driest month;

..... mm [1]

**(iii)** stating the climatic conditions which explain why plant growth never stops.

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.....[2]

[Total: 8 marks]

**6** **(a)** Fig. 12 shows part of north-west Mexico, an LEDC, where the government has funded the necessary infrastructure to develop a tourist resort at Los Cabos.

*For Examiner's Use*

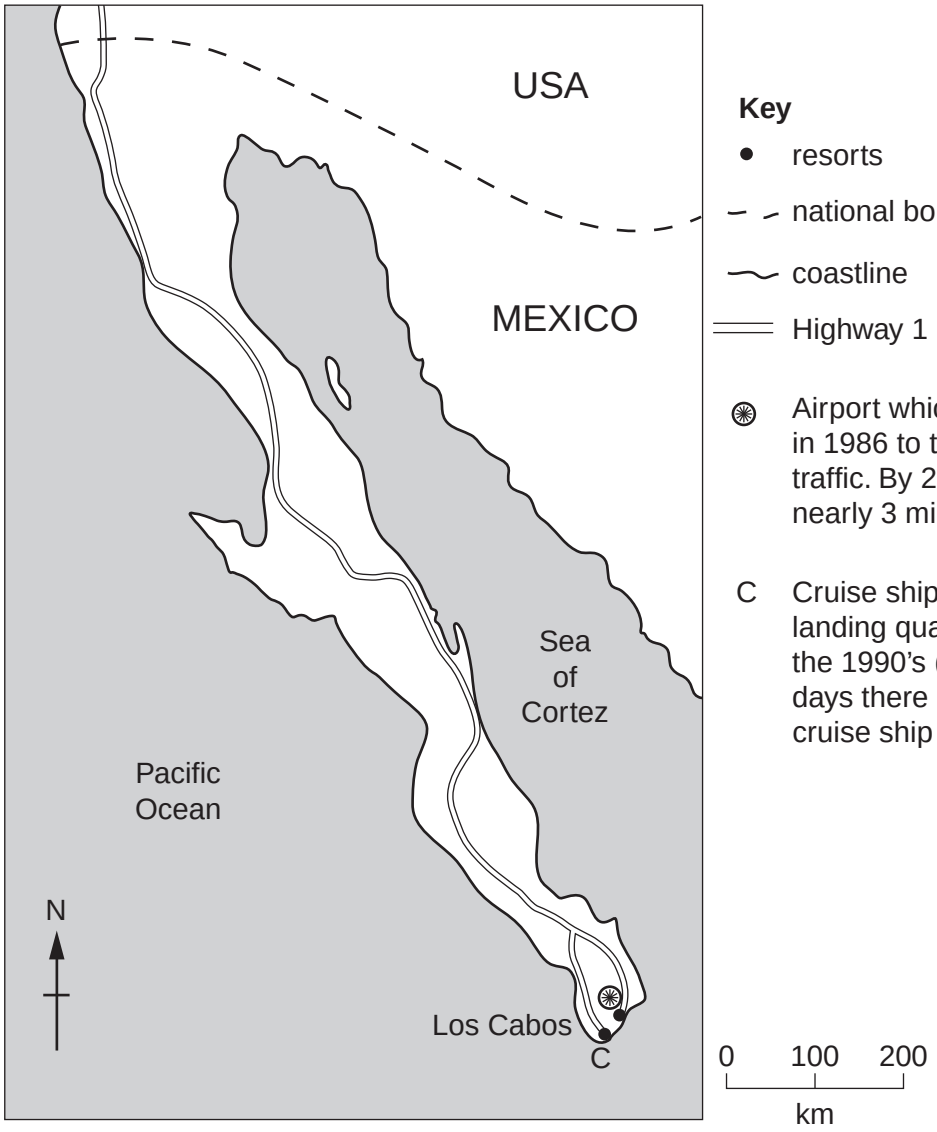


**Fig. 12**

Use information from Fig. 12 to answer the questions.

**(i)** What was the only way in which Los Cabos could be reached before 1974?

.....

.....[1]

**(ii)** Why did the location of Los Cabos make it an unlikely one for the growth of a tourist resort?

.....

.....[1]

**(iii)** In which compass direction do visitors arriving by road travel from the USA border to Los Cabos?

For Examiner's Use

.....[1]

**(b)** The growth of tourist visitors to the area is shown in Fig. 13.

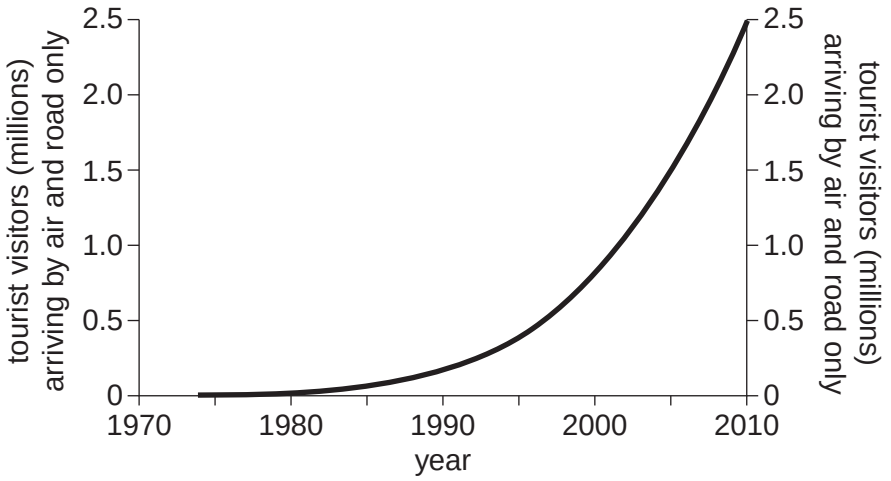


**Fig. 13**

Use information from Figs 12 and 13 to describe and explain the main changes in the number of tourist visitors to the area over the period shown.

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.....[5]

[Total: 8 marks]

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