CAMBRIDGE
International Education

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GEOGRAPHY **0460/01**

Paper 1 Physical Geography **For examination from 2027**

SPECIMEN PAPER **1 hour 45 minutes**

You must answer on the question paper.

You will need: Insert (enclosed)
Calculator
Ruler

INSTRUCTIONS

- Answer **three** questions in total:
  - Section A: answer Question 1.
  - Section B: answer **two** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen. Do **not** use correction fluid or tape.
- Do **not** write on any bar codes.
- If additional space is needed, you should use the lined pages at the end of this booklet; the question number or numbers must be clearly shown.

INFORMATION

- The total mark for this paper is 75.
- The number of marks for each question or part question is shown in brackets [ ].
- The insert contains additional resources referred to in the questions.

Definitions
LICs = low-income countries
MICs = middle-income countries
HICs = high-income countries

This document has **22** pages. Any blank pages are indicated.

Section A

Answer Question 1.

1 **(a)** Study Figure 1.1, a map showing the location and magnitude of earthquakes in Alaska, USA.

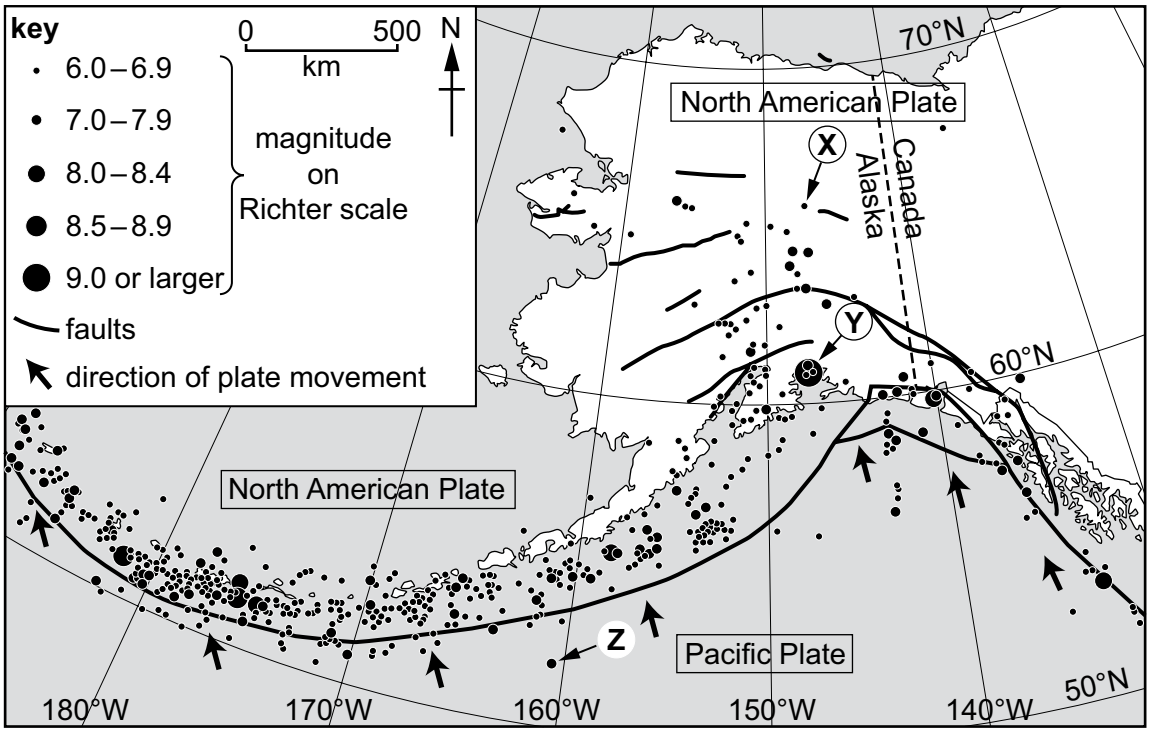

Figure 1.1

(i) In which direction is the Pacific Plate moving?

Tick **one** answer.

	tick (✓)
north (N)	
north-north-west (NNW)	
north-west (NW)	
south-east (SE)	
south-south-east (SSE)	

[1]

(ii) State the latitude and longitude of the earthquake labelled **X** in Figure 1.1.

.....°N .....°W [1]

(iii) Identify the magnitude on the Richter scale of the earthquakes labelled **Y** and **Z** in Figure 1.1.

Y .....

Z .....
[2]

(iv) Name **two** other scales which can be used to measure earthquakes.

1 .....

2 .....
[2]

(v) Describe the distribution of earthquakes shown in Figure 1.1.

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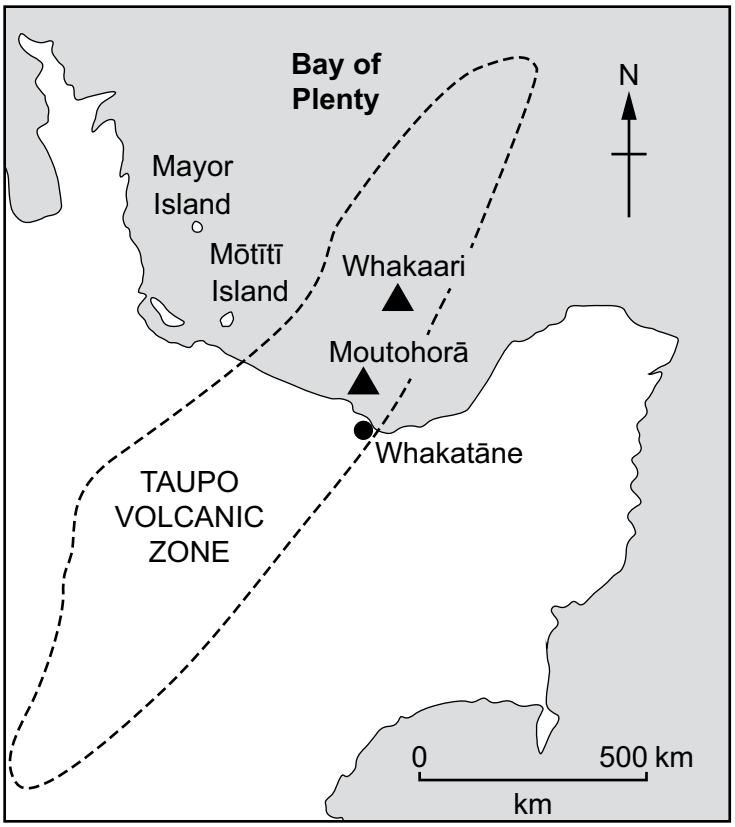
..... [4]

(b) Figure 1.2 shows the location of Whakaari, New Zealand, where a volcano erupted in 2019.



key

▲ volcano

sea

land

● town

Figure 1.2

(i) Use Figure 1.2 to describe the location of Whakaari.

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..... [3]

(ii) Figure 1.3 shows information about a volcanic eruption.

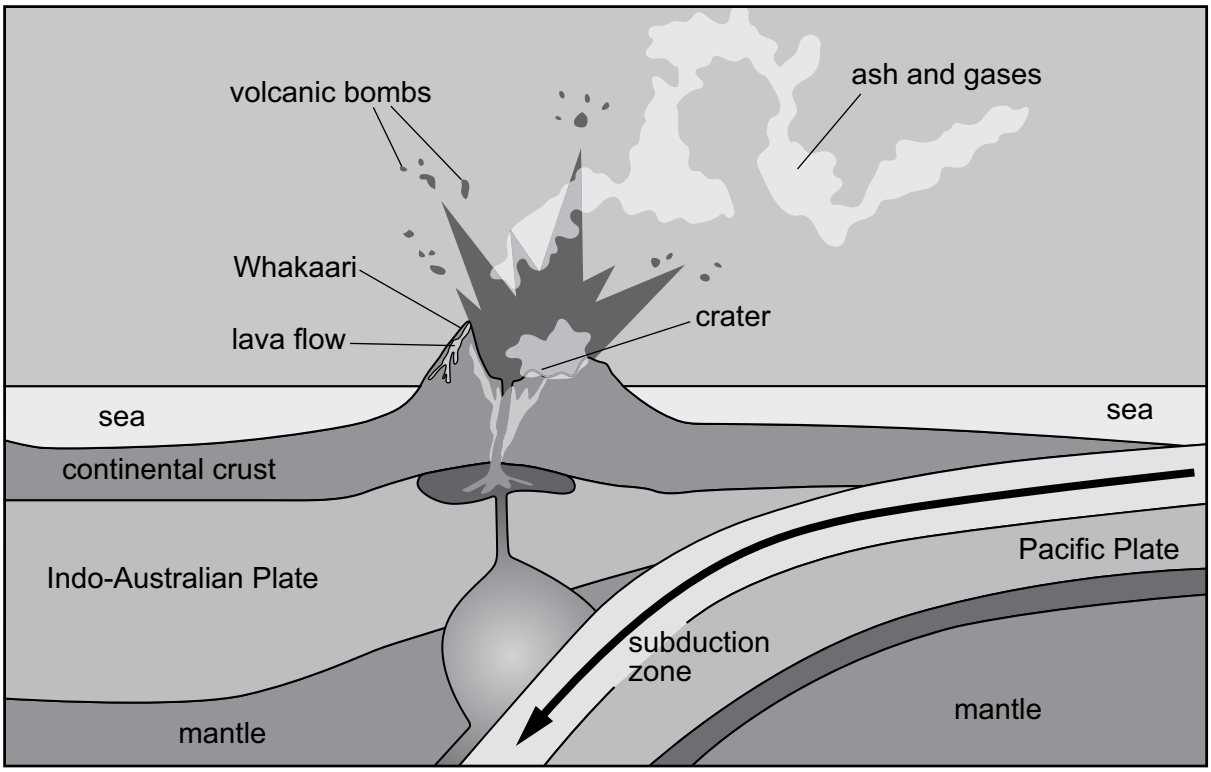

Figure 1.3

Use Figure 1.3 to explain why a volcanic eruption occurred on Whakaari.

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..... [5]

(c) Assess the extent to which technology can reduce the impacts of volcanic eruptions.

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..... [7]

[Total: 25]

Section B

Answer **two** questions from this section.

2 **(a)** Study Figure 2.1 (Insert), a photograph showing a bay at low tide.

(i) Name the coastal landform labelled **X** in Figure 2.1.

..... [1]

(ii) Use Figure 2.1 to identify **two** characteristics of the landform labelled **X**.

1 .....

2 .....
[2]

(iii) Use Figure 2.1 to describe the features of the bay. Do **not** refer to landform **X**.

.....

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..... [3]

(iv) Explain why bays and headlands form along discordant coastlines.

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..... [4]

(b) Figure 2.2, shows the average monthly frequency of tropical cyclones affecting India's west and east coasts.

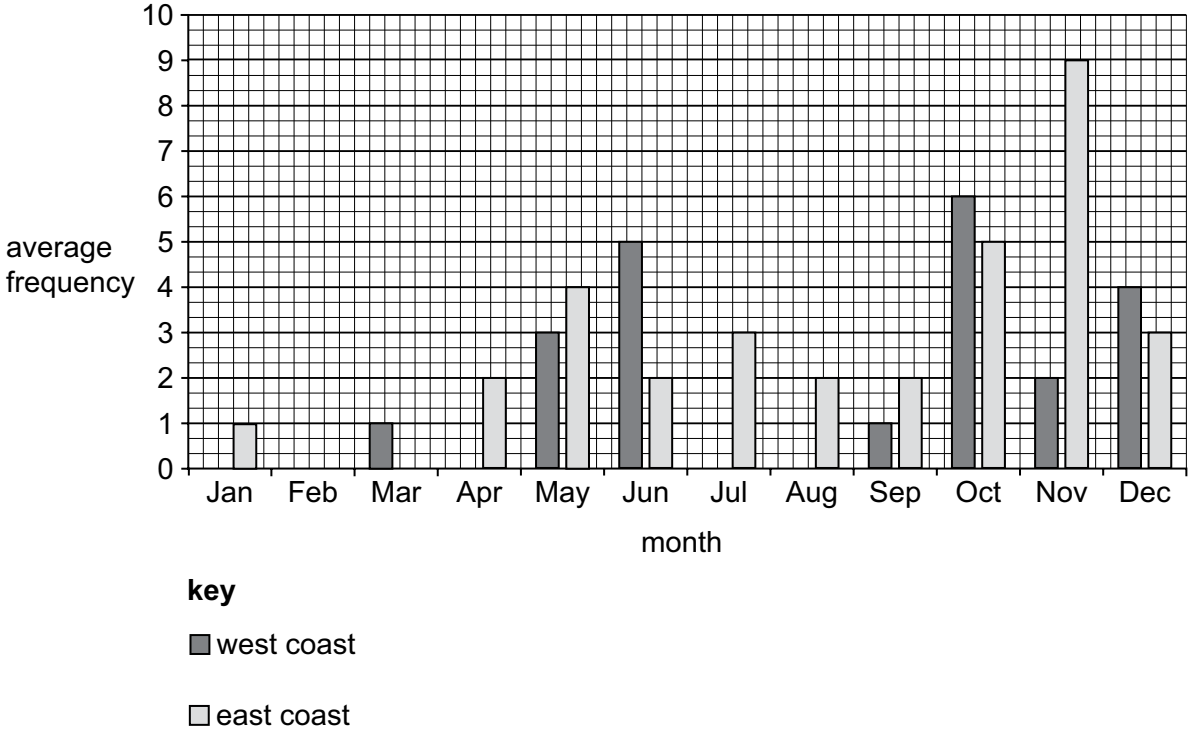

Figure 2.2

(i) Use Figure 2.2 to compare the average monthly frequency of tropical cyclones on India's west and east coasts. Refer to data in your answer.

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..... [3]

(ii) Evaluate the different ways in which the impacts of tropical storms (cyclones, hurricanes and typhoons) can be managed.

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(c) Explain the importance of coral reefs to a coastal area you have studied.

name of coastal area .....

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[7]

[Total: 25]

3 **(a)** Figure 3.1 shows four climatic regions.

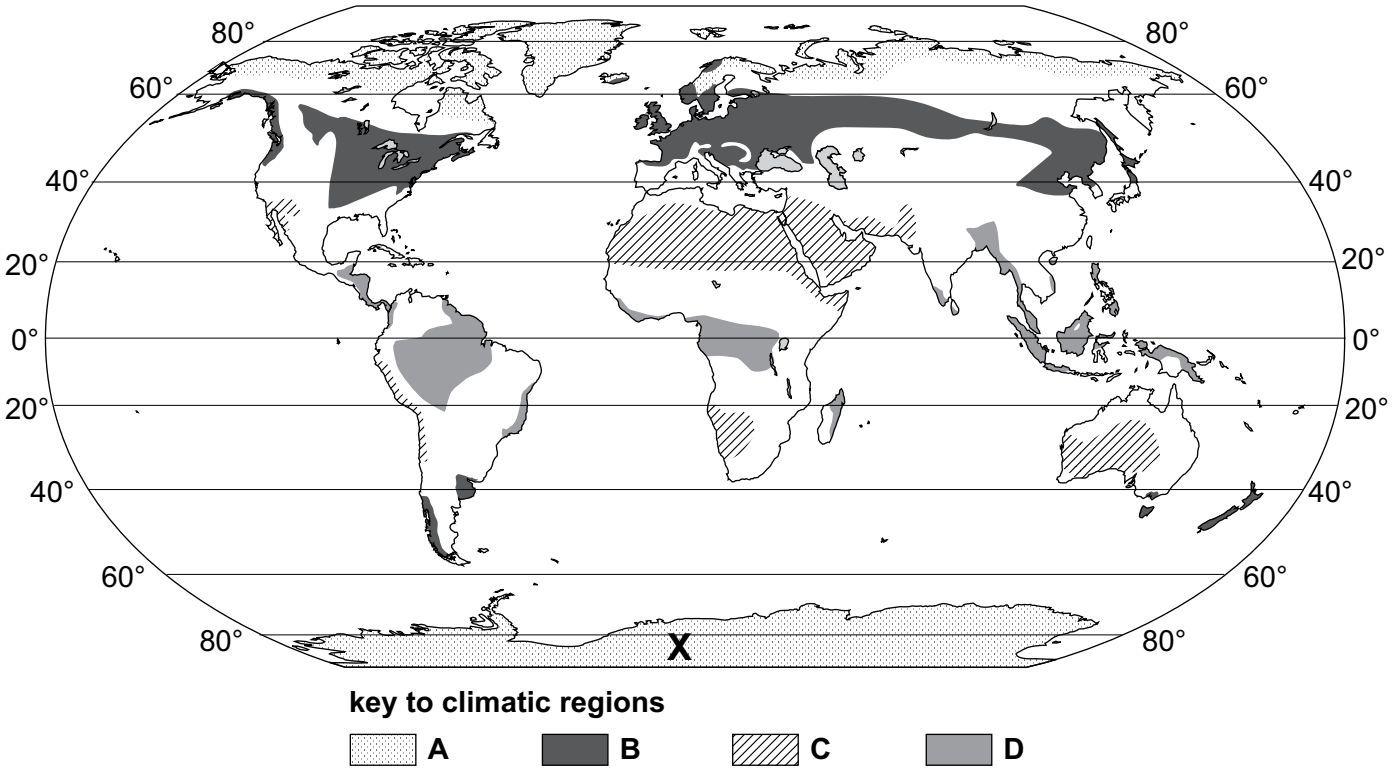

Figure 3.1

(i) Name the continent marked **X** in Figure 3.1.

..... [1]

(ii) Zone D in Figure 3.1 has an equatorial climate. Describe the distribution of the regions with an equatorial climate.

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..... [2]

(iii) Figure 3.2 is a climate graph of an equatorial climate.

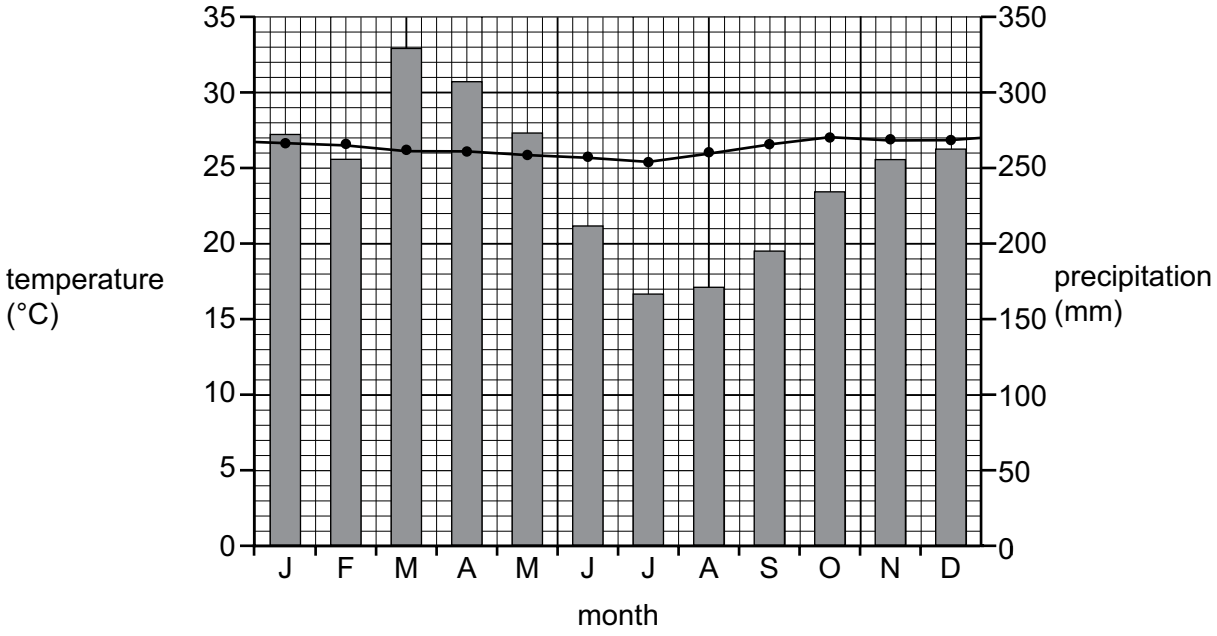

Figure 3.2

Use Figure 3.2 to describe the main features of the equatorial climate. Refer to data in your answer.

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..... [3]

(iv) Explain why temperatures are low in Antarctica.

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(b) Figure 3.3 shows the reasons for the deforestation of tropical rainforests in Africa and South America.

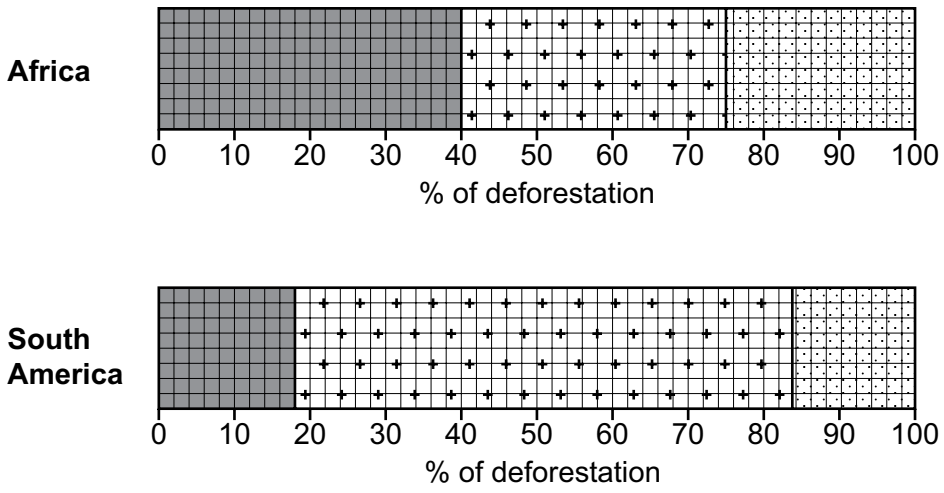

Figure 3.3

(i) Use Figure 3.3 to compare the percentage of deforestation in Africa and South America for both types of agriculture. Refer to data in your answer.

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..... [3]

(ii) Study Table 3.1, which shows three plans which the government of a country in Africa is considering to sustainably manage the tropical rainforest.

Table 3.1

Plan A Allow development only in restricted areas and plant two trees for every tree that is removed.
Plan B Create national parks/conservation areas to prevent development in all areas of tropical rainforest.
Plan C Only allow development of the tropical rainforest for ecotourism.

Choose the plan that you think will be most effective in sustainably managing the tropical rainforest. Justify your decision.

plan chosen .....

justification .....

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[5]

(c) Explain why many people are concerned about the destruction of the Antarctic ecosystem. Refer to examples in your answer.

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[Total: 25]

4 **(a)** Study Figure 4.1, which shows changes in global carbon dioxide (CO_2) emissions and average temperature change between 1960 and 2020.

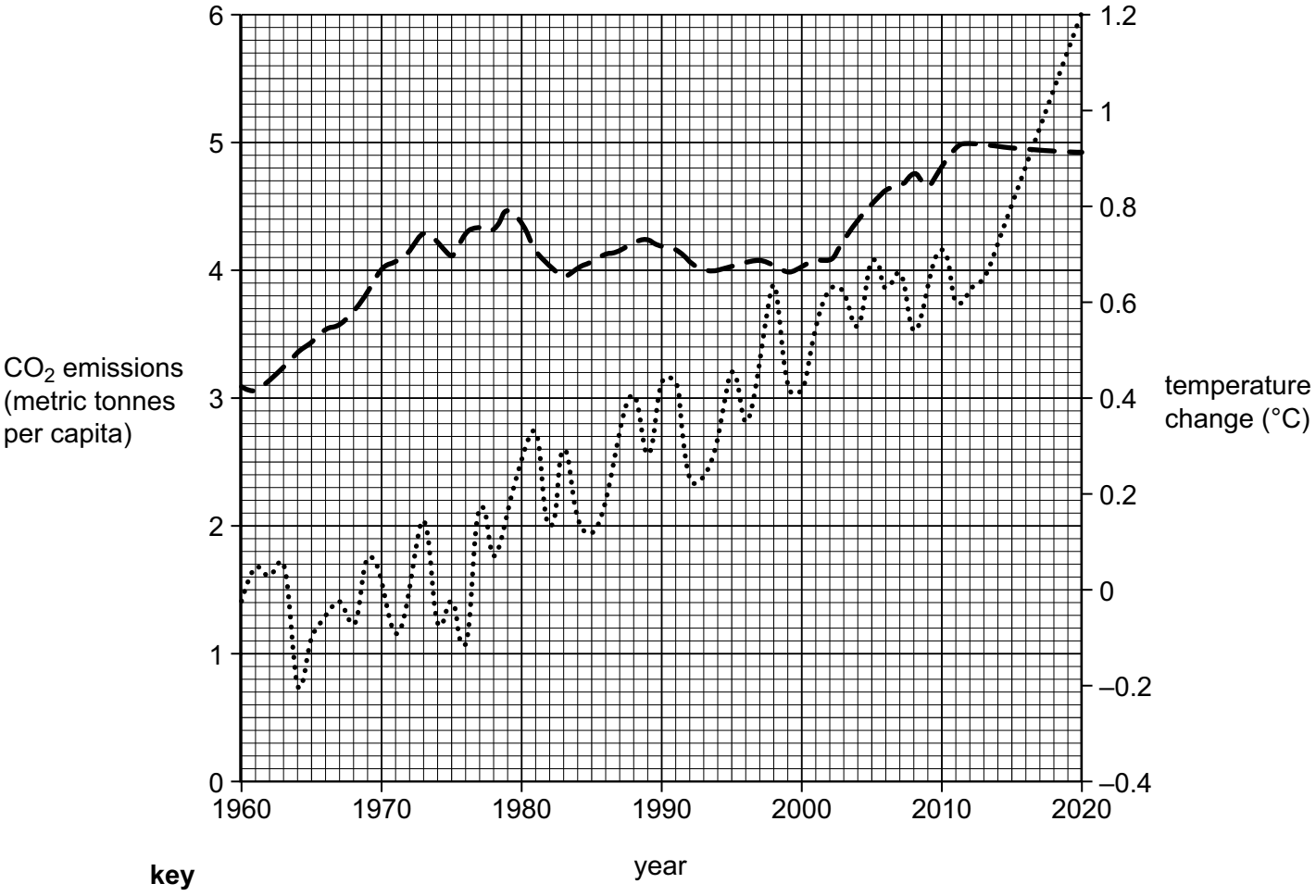

Figure 4.1

(i) Estimate the increase in global CO_2 emissions between 1960 and 2020.

..... metric tonnes per capita [1]

(ii) Give **two** reasons for the increase in global CO_2 emissions between 1960 and 2020.

1 .....

2 .....

[2]

(iii) Use Figure 4.1 to describe the average changes in temperature between 1960 and 2020. Refer to data in your answer.

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.....[3]

(iv) Use evidence in Figure 4.1 to describe the relationship between global CO_2 emissions and average temperature change.

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.....[4]

(b) (i) State **one** reason for each of the following impacts of climate change.

rising sea levels .....

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prices of food may rise .....

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shortage of fresh water .....

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[3]

(ii) To what extent is international cooperation essential to slow down the rate of climate change?

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.....[5]

(c) For a named country you have studied, describe the strategies which have been used to reduce the problems caused by climate change.

name of country .....

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[Total: 25]

Additional page

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