

CANDIDATE
NAME

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CENTRE
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GEOGRAPHY

0460/13

Paper 1

October/November 2019

1 hour 45 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
 Protractor
 Calculator

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 an HB pencil for any diagrams or graphs.

Do not use staples, paper clips, glue or correction fluid.

DO **NOT** WRITE IN ANY BARCODES.

Write your answer to each question in the space provided.

If additional space is required, you should use the lined pages at the end of this booklet. The question number(s) must be clearly shown.

Answer **three** questions, **one** from each section.

The Insert contains Fig. 4.1 for Question 4, Fig. 5.1 for Question 5, and Figs. 6.1, 6.2, 6.3 and 6.4 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.

Definitions

MEDCs – More Economically Developed Countries

LEDCs – Less Economically Developed Countries

This syllabus is regulated for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

This document consists of **29** printed pages, **3** blank pages and **1** Insert.

Section A

Answer **one** question from this section.

- 1 (a) Study Fig. 1.1, which shows information about birth rates and death rates in Mexico (an LEDC) between 1900 and 2060 (estimated).

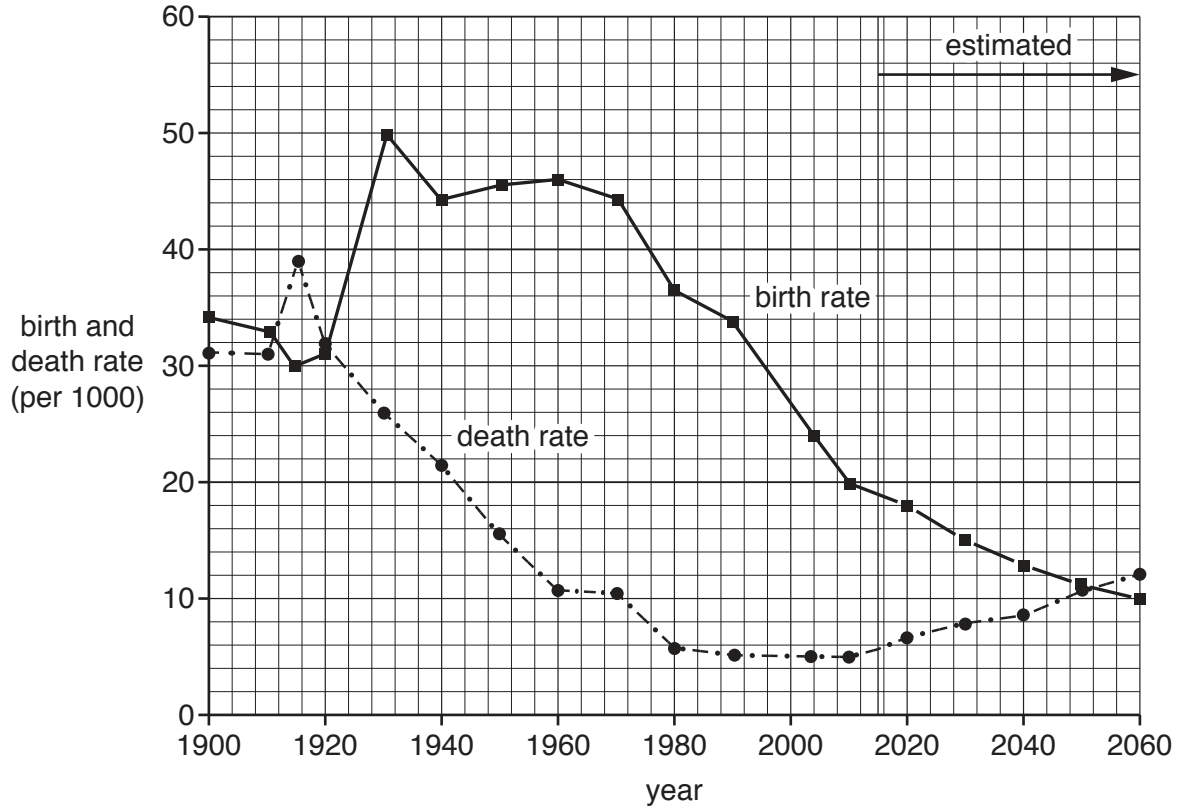


Fig. 1.1

- (i) What is meant by *death rate*?

.....

..... [1]

- (ii) Which of the following statements is true about birth and death rates in Mexico? Tick **two** answers in the table below:

	Tick (✓)
The birth rate declined every year between 1900 and 2015.	
The birth rate was always higher than the death rate between 1900 and 2015.	
Both the birth rate and the death rate declined overall between 1960 and 2015.	
Natural population growth was lower in 2015 than it was in 1980.	
Natural population growth was high between 1900 and 1920.	

[2]

- (iii) Calculate the natural population growth rate of Mexico in 2010. You should show your calculations.

[3]

- (iv) Suggest reasons to explain why the natural population growth rate in Mexico is likely to decrease between 2015 and 2050.

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[4]

(b) Study Fig 1.2, which shows population pyramids of the structure of Mexico's population in 1980 and 2010.

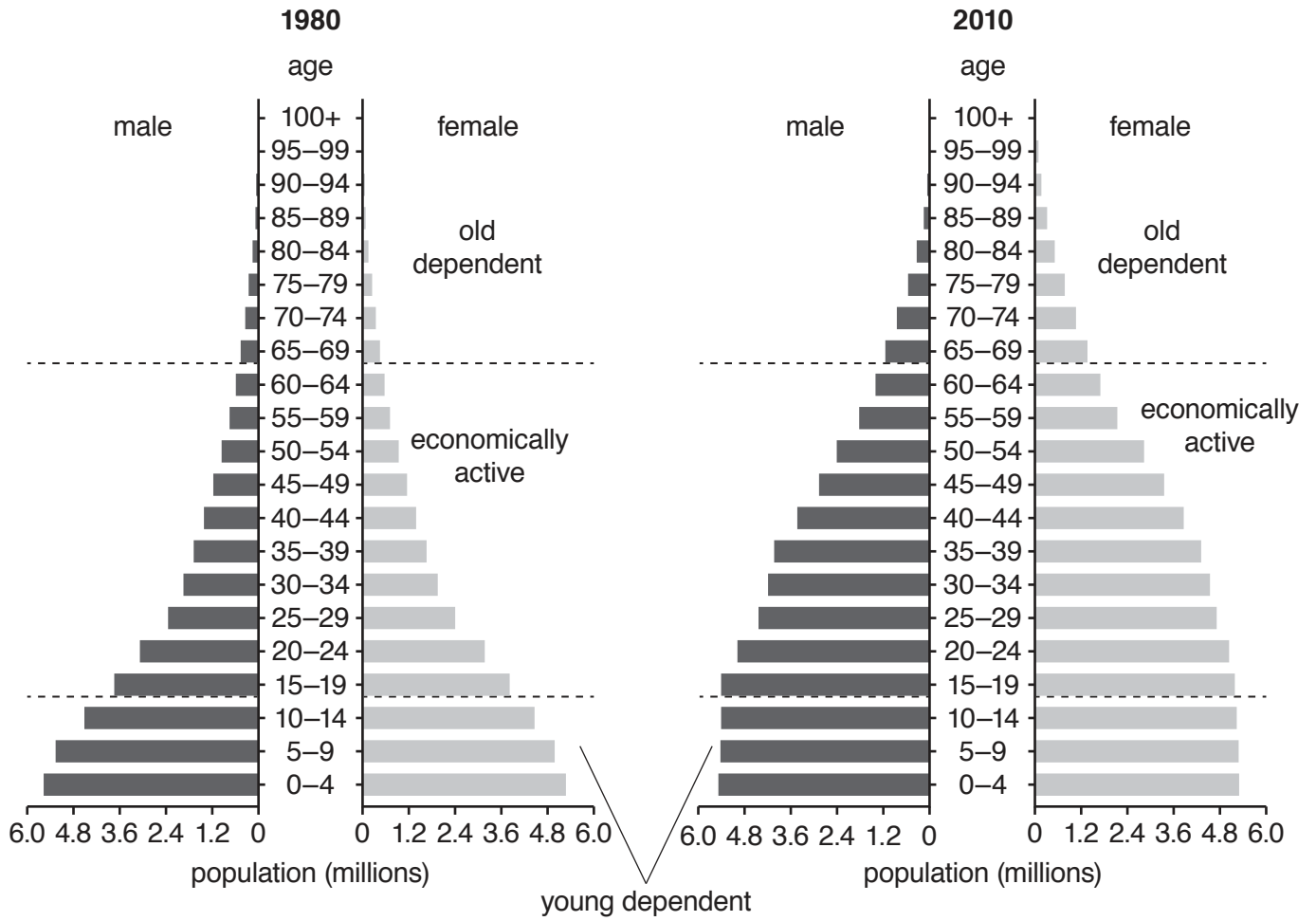


Fig. 1.2

(i) Describe the changes in Mexico's population structure between 1980 and 2010.

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(ii) Suggest ways in which a large **young** dependent population is likely to cause problems for a country.

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2 (a) Study Fig. 2.1, which shows information about the sources of air pollution in urban areas in Japan, India and South Korea.

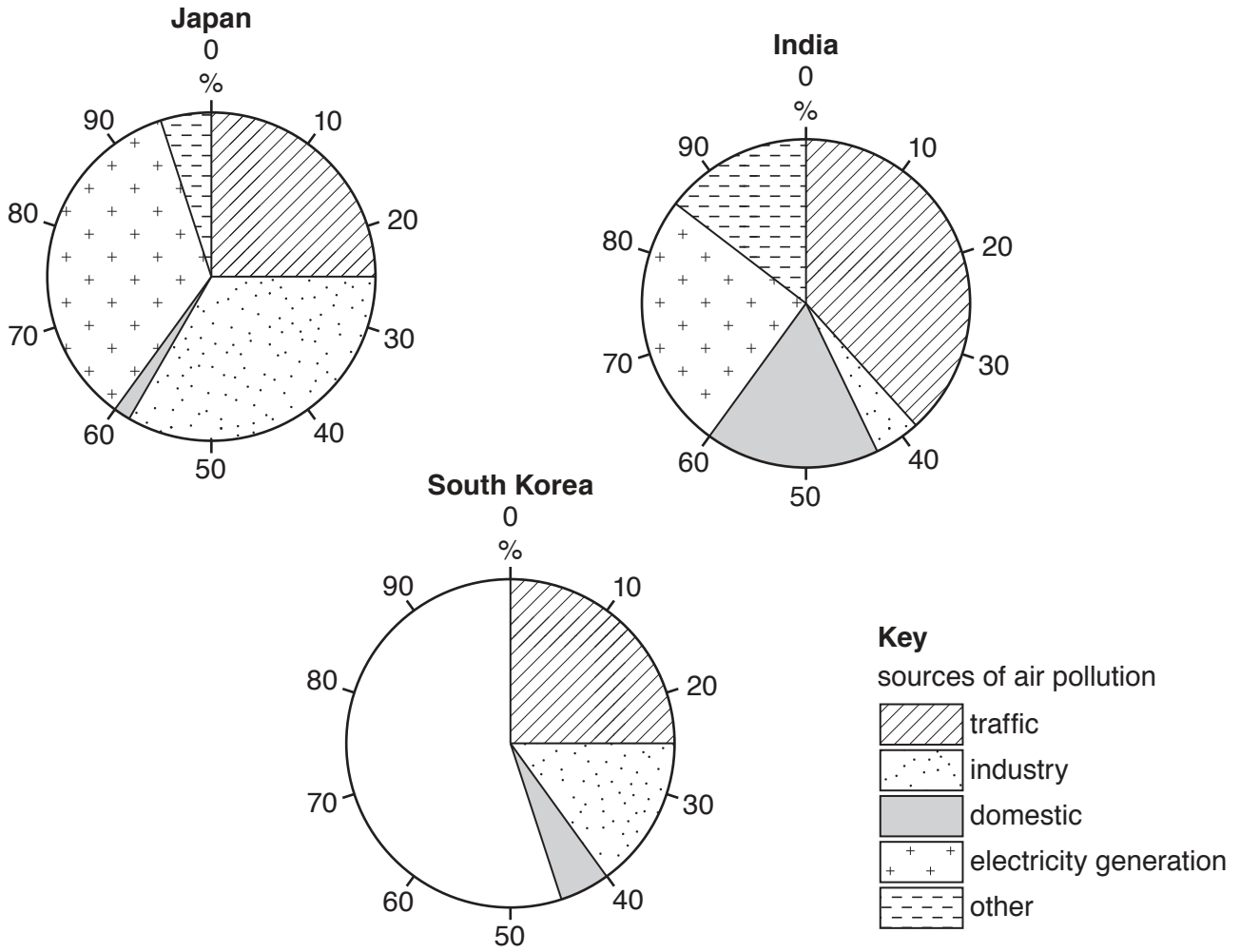


Fig. 2.1

(i) What is an *urban* area?

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..... [1]

(ii) Complete the graph for South Korea by plotting the following information:

- electricity generation = 45%
 - other = 10%
- [2]

(iii) Identify the main differences between the sources of air pollution in India and Japan.

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..... [3]

(iv) Explain how air pollution causes problems for people who live in urban areas.

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- (b) Study Fig. 2.2, which is information about traffic congestion in Gauteng, a province in South Africa.

According to Ismail Vadi, a member of the Executive Council for Roads and Transport in Gauteng, traffic congestion is likely to increase in the next 25 years. The number of vehicles is expected to double and cause average speed in urban areas during peak hours to drop from the current 48 km/h to 10 km/h. He recently released the Integrated Transport Master Plan (ITMP25), which shows that the province's population will increase from 12.4 million to 18.7 million and its working population will grow to 8.6 million, increasing rush hour passenger journeys to 25 million a day. ITMP25 plans to prioritise the use of public transport, particularly the rail network, which has lacked investment in the last 20 years. If nothing is done there will be a severe impact on the built and natural environment and the quality of lives of residents will deteriorate.

Fig. 2.2

- (i) Using Fig. 2.2 **only**, give **three** reasons why urban areas in Gauteng will experience increased traffic congestion.

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(ii) Using Fig. 2.2 and your own knowledge, suggest how traffic problems could be reduced in urban areas in Gauteng.

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Section B

Answer **one** question from this section.

- 3 (a) Study Fig. 3.1, which shows information about the problems faced by households after an earthquake in Port-au-Prince, Haiti.

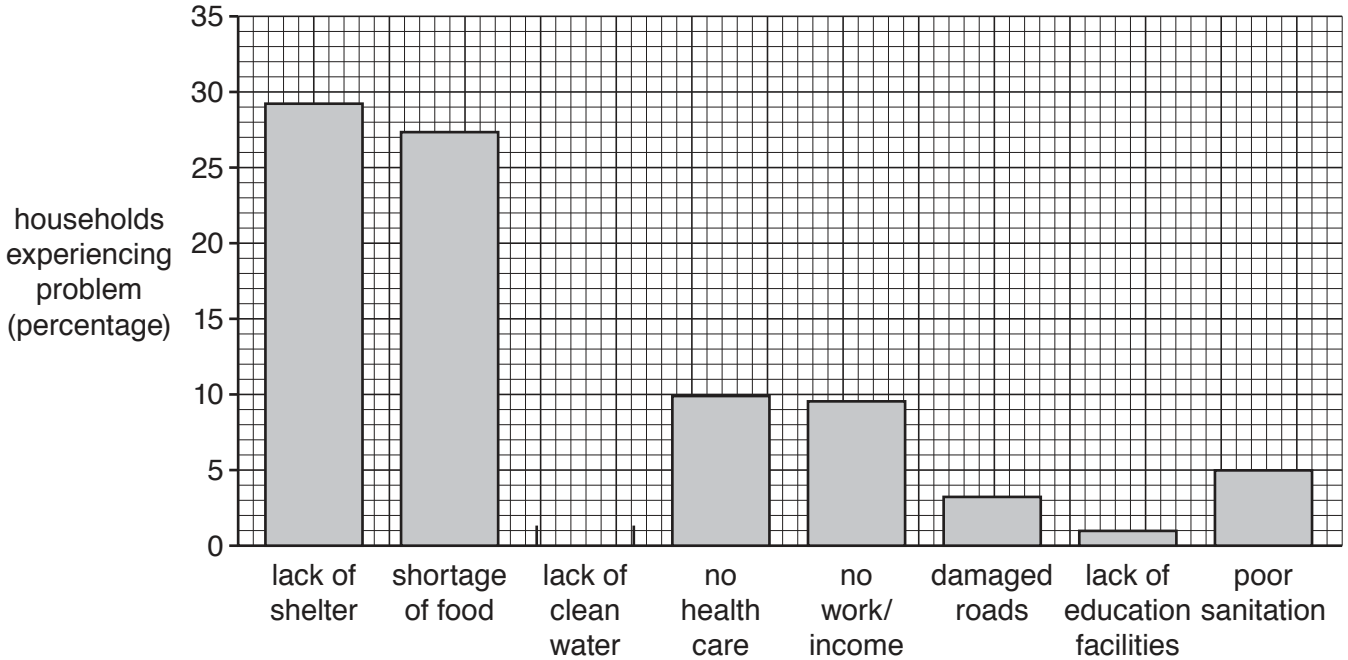


Fig. 3.1

- (i) Complete Fig. 3.1 by plotting the following information:

13% of households were affected by lack of clean water after the earthquake. [1]

- (ii) Identify the **two** main problems caused by the earthquake in Haiti.

1

2 [2]

- (iii) Explain why it is necessary to provide clean water and sanitation after an earthquake.

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 [3]

- (iv) Explain how new buildings can be earthquake-proofed, so that they are less likely to be damaged in an earthquake.

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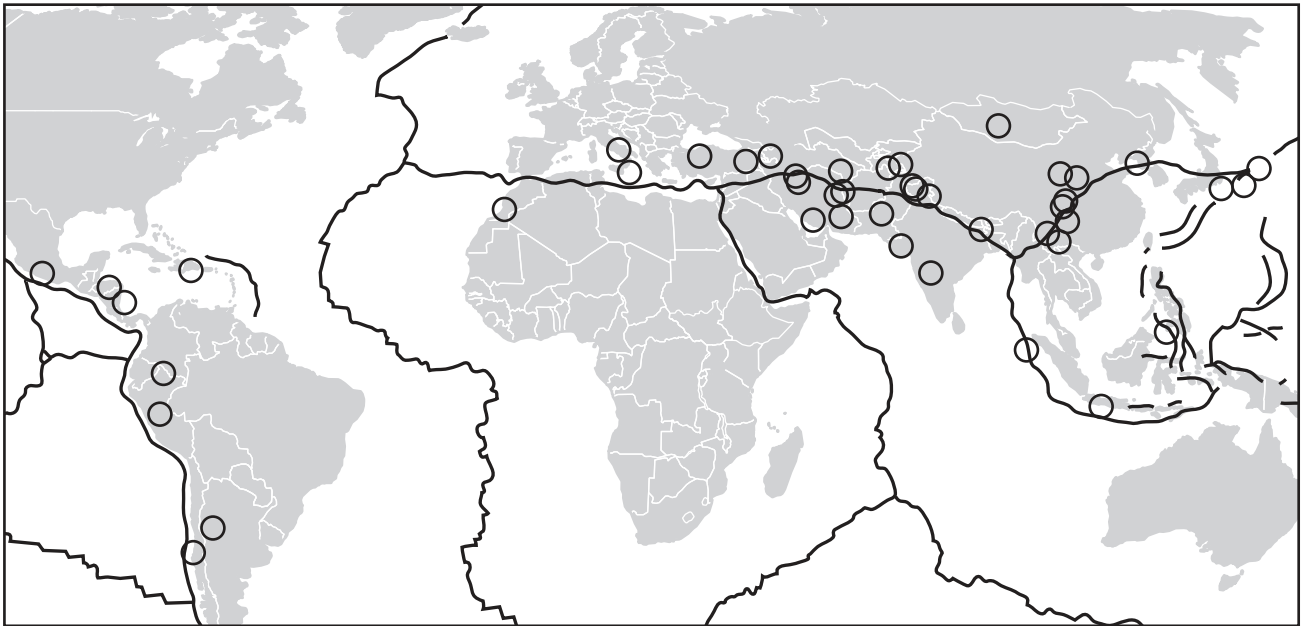
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..... [4]

(b) Study Fig. 3.2, which is a map showing information about earthquakes which caused more than 10 000 deaths in different parts of the world (1900-2011).



Key

- earthquakes which caused more than 10 000 deaths
- major plate boundary

Fig. 3.2

(i) The distribution of earthquakes is uneven. Describe the distribution of the areas where earthquakes caused more than 10 000 deaths between 1900 and 2011.

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..... [3]

(ii) Explain why the distribution of the areas where large numbers of deaths have been caused by earthquakes is uneven.

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..... [5]

4 (a) Study Fig. 4.1 (Insert), which is a photograph of part of a river.

(i) What river feature is shown in Fig. 4.1?

Underline **one** answer in the list below:

confluence meander potholes source [1]

(ii) Describe **two** characteristics of the feature labelled **X** on Fig. 4.1.

1

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2

..... [2]

(iii) Explain how the feature labelled **Y** on Fig. 4.1 was formed.

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(iv) Suggest how the course of the river shown in Fig. 4.1 may change in the future as a result of natural processes.

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(b) Study Fig. 4.2, which is a map of the delta of the Pearl River in China.

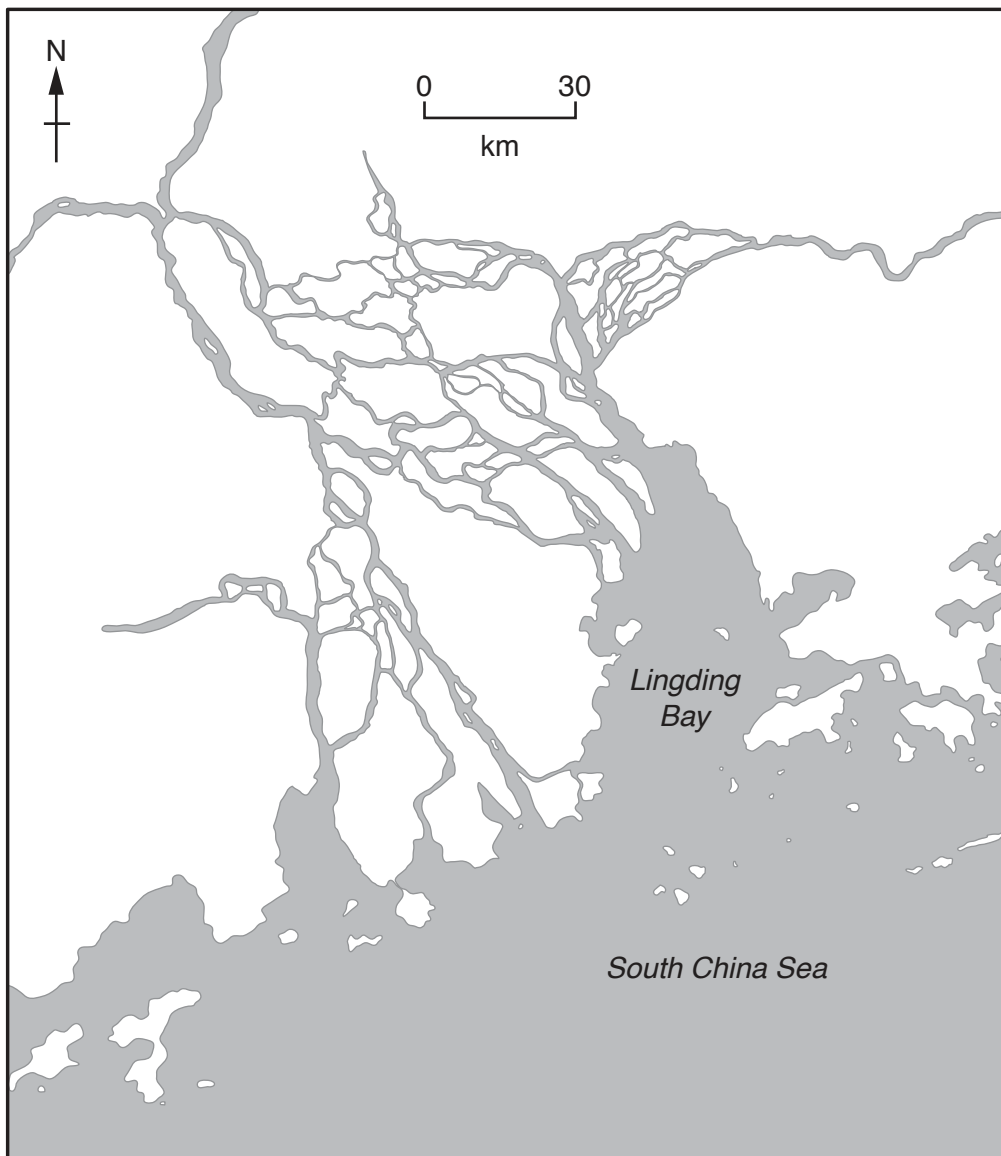


Fig. 4.2

(i) Using Fig. 4.2 **only**, describe the characteristics of the Pearl River delta.

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(ii) Explain how a delta is formed. You may include a labelled diagram.

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Section C

Answer **one** question from this section.

5 (a) Study Fig. 5.1 (Insert), which is a photograph of an area where subsistence farming takes place.

(i) What is meant by *subsistence farming*?

.....
 [1]

(ii) Using evidence from Fig. 5.1 **only**, describe **two** features of farming in the area shown.

1

 2
 [2]

(iii) Insert the following words into the table below to show examples of inputs, processes and outputs of the subsistence farmers who work in the area shown in Fig. 5.1.

Choose from the words below.

- harvesting milk water
- maize seeds weeding

Inputs	Processes	Outputs

[3]

(iv) Explain why many farmers in LEDCs are subsistence farmers.

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 [4]

- (b) Study Fig. 5.2, which is a graph showing information about the world production of wheat and rice between 1980 and 2013.

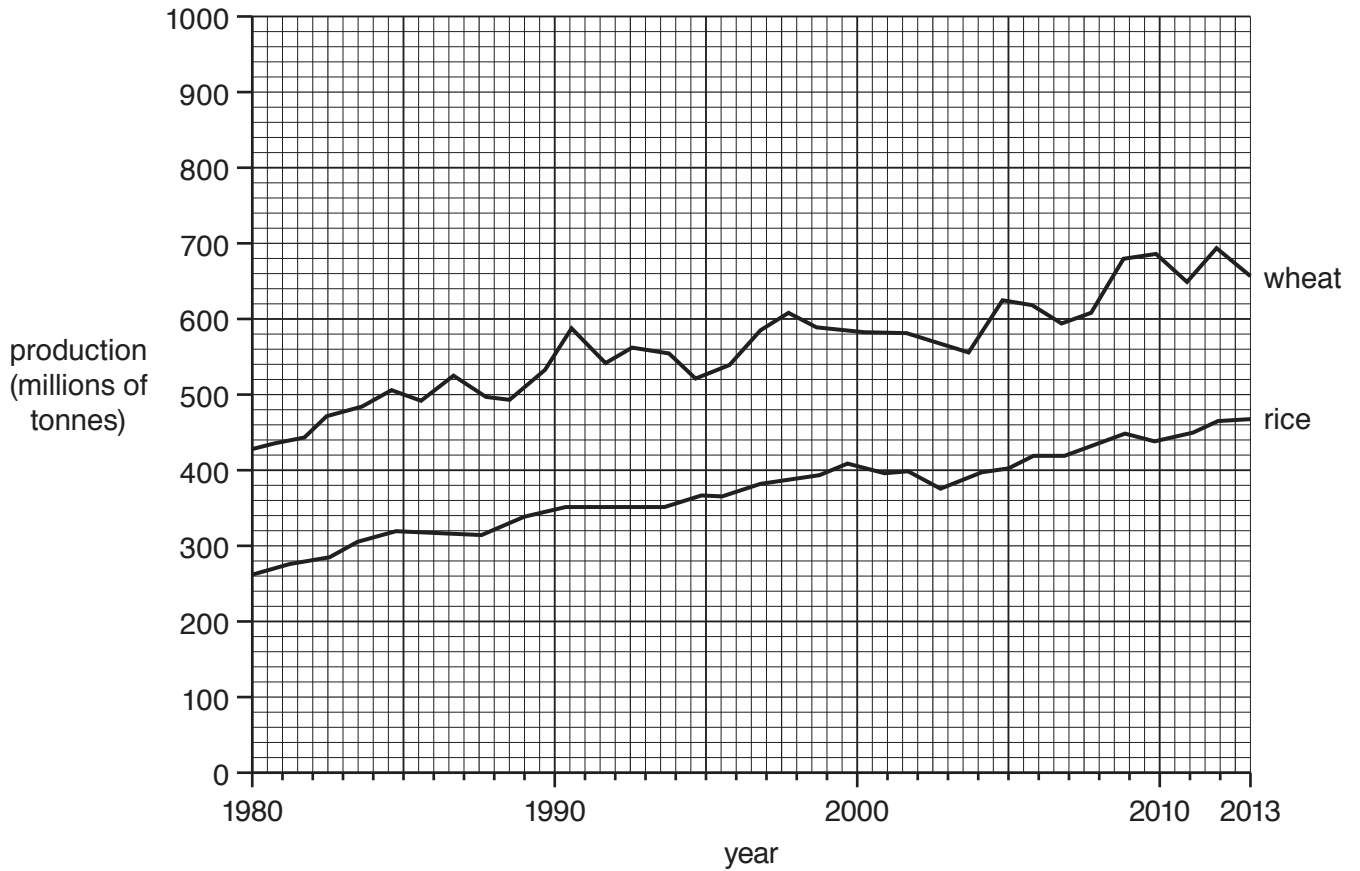


Fig. 5.2

- (i) Compare the world production of wheat and rice between 1980 and 2013.
You should use statistics in your answer.

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..... [3]

- (ii) Explain why the amount of crops produced on a farm, (e.g. wheat and rice), varies from year to year.

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6 (a) Study Fig. 6.1 (Insert), which shows information about threats to the natural environment in the Caspian Sea.

(i) Identify the main source of pollution in the Caspian Sea.

..... [1]

(ii) Using information from Fig. 6.1 **only**, name:

– a major urban area within 50 km of the Caspian Sea

.....

– a river which flows into the Caspian Sea.

..... [2]

(iii) Using evidence from Fig. 6.1 **only**, suggest **three** likely impacts on the natural environment of pollution in the Caspian Sea.

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(iv) Suggest why it is difficult to reduce water pollution in the Caspian Sea.

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(b) Study Figs. 6.2, 6.3 and 6.4 (Insert), which are photographs of economic activities which increase greenhouse gases in the atmosphere.

(i) Explain how each of the economic activities shown in Figs. 6.2, 6.3 and 6.4 increase greenhouse gases in the atmosphere.

Fig. 6.2

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Fig. 6.3

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Fig. 6.4

..... [3]

(ii) Explain how an increase in greenhouse gases in the atmosphere is causing global warming.

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