Cambridge O Level

GEOGRAPHY	**2230/01**
Paper 1 Geographical Themes	**For examination from 2021**
SPECIMEN PAPER	**2 hours**

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)   Ruler
Insert (enclosed)
Calculator

INSTRUCTIONS
- Answer **three** questions in total, **each** from a different theme.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

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.

This document has **14** pages. Blank pages are indicated.
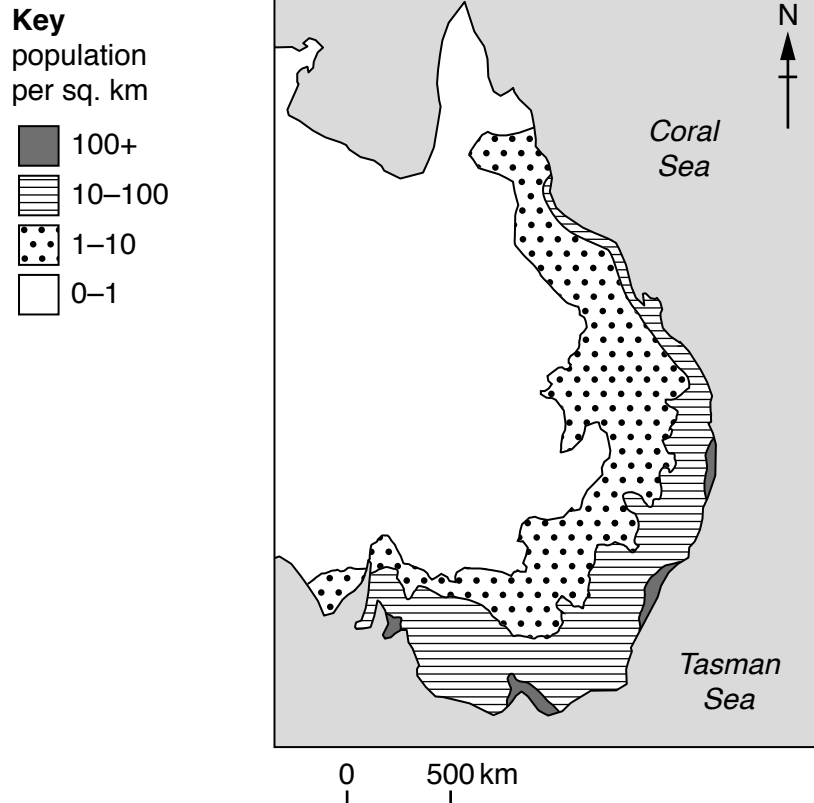
Theme 1: Population and settlement

Answer **one** question from this theme.

EITHER

1 **(a)** What is meant by population density? [2]

Eastern Australia: population density

Key
population
per sq. km

- 100+
- 10–100
- 1–10
- 0–1

Coral Sea
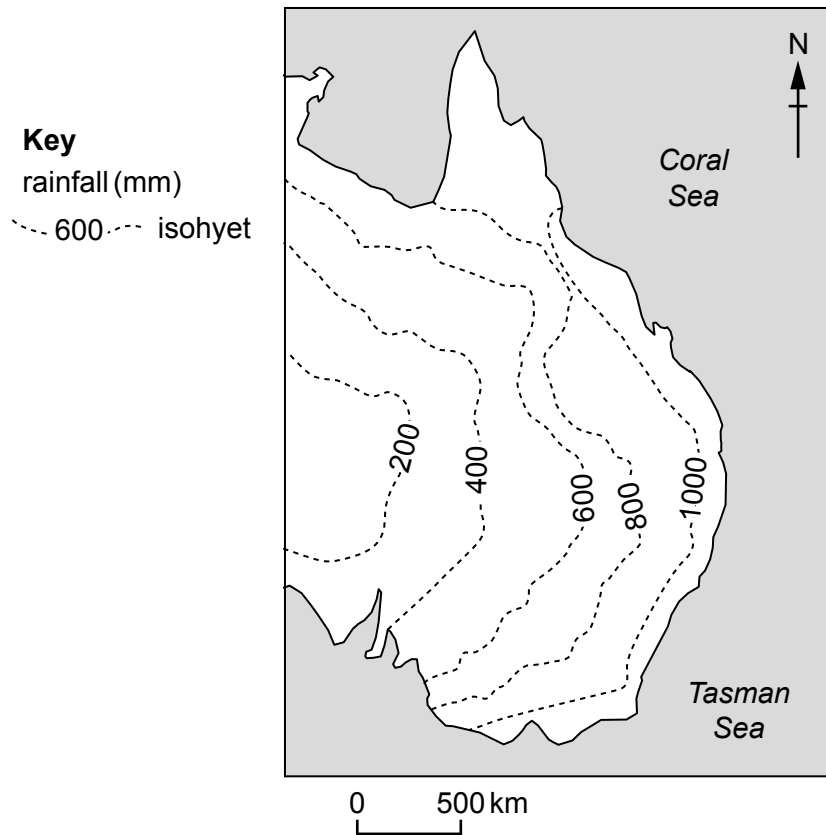
N

Tasman Sea

0   500 km

Fig. 1.1

(b) Study Fig. 1.1, which shows the population density of eastern Australia. Describe the pattern of population density shown in Fig. 1.1. [2]

(c) Study Fig. 1.2, which shows annual rainfall totals for eastern Australia.
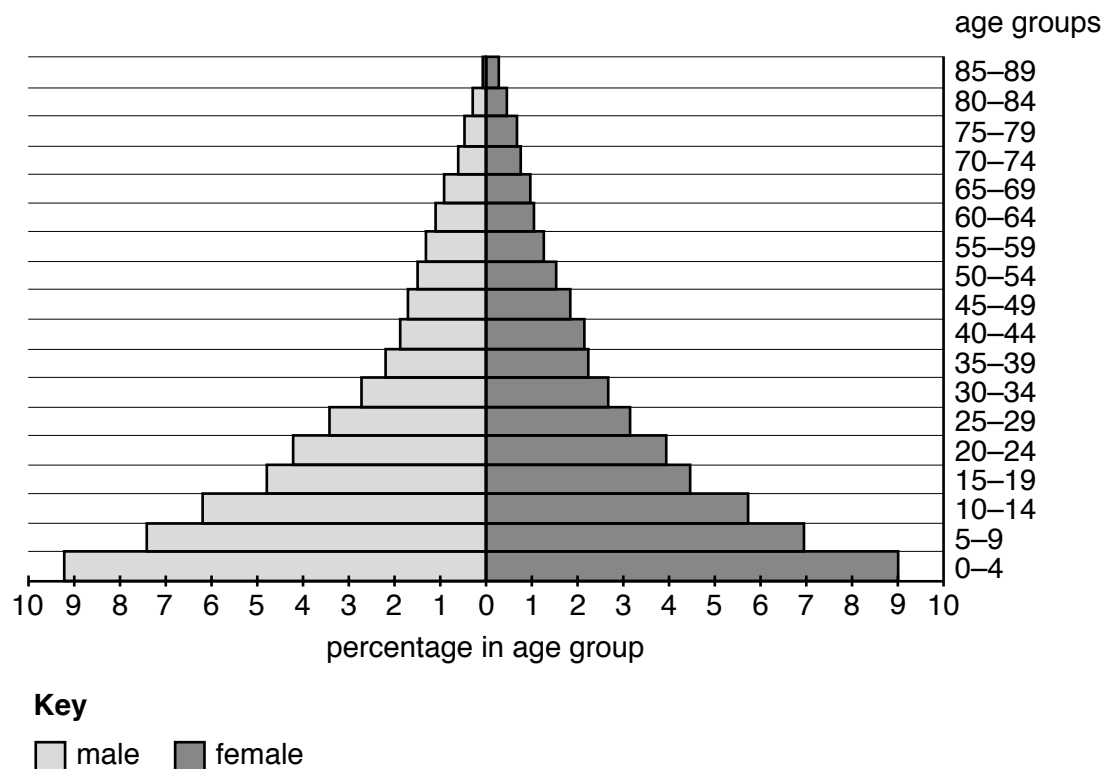
Eastern Australia: annual rainfall totals

Fig. 1.2

Use the information in Fig. 1.2 and Fig. 1.1 to describe the relationship between rainfall totals and population density. [2]

(d) Suggest **economic** reasons which may cause a high population density. [4]

(e) Study Fig. 1.3, which shows a population pyramid for Angola in 2012.

Population pyramid for Angola, 2012

Fig. 1.3

  (i) State how the population pyramid shows Angola to have a high birth rate. [1]

  (ii) Explain why some countries have high birth rates. [3]

  (iii) Describe the problems a high birth rate might cause for a country. [4]

(f) With reference to **one** country, describe a strategy used by the government to control the rate of population growth. How successful do you think this policy has been? [7]
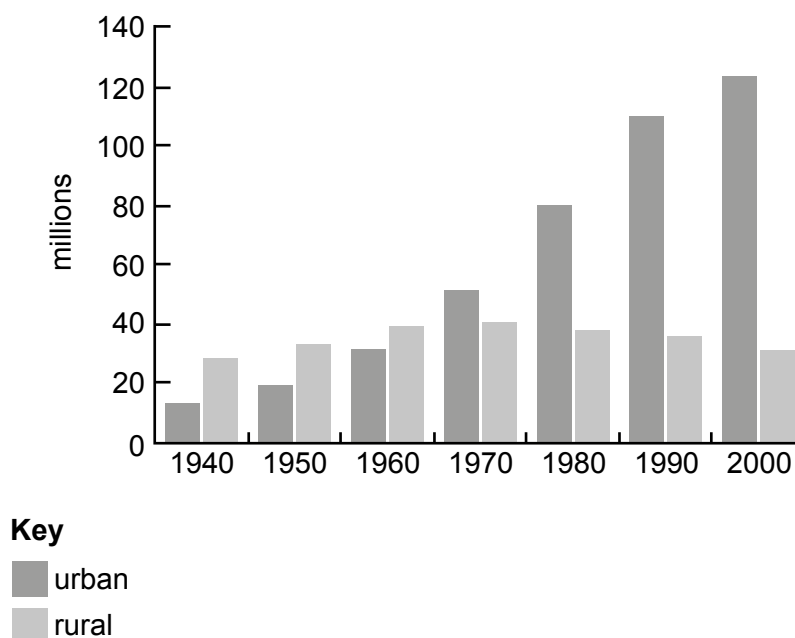
[Total: 25]

OR

2 **(a)** Define *urbanisation*. [2]

(b) Study Fig. 2.1, which shows changes in the urban and rural populations of Brazil, 1940–2000.

Urban and rural populations in Brazil 1940–2000

Fig. 2.1

(i) Describe the changes in urban and rural population shown on Fig. 2.1. [4]

(ii) Give reasons for the changes you described in **(b)(i)**. [4]

(c) Study Fig. 2.2 (Insert), a photograph which shows Rocinha, an area of poor living conditions in Rio de Janeiro, Brazil.

(i) Describe the features of the settlement shown in Fig. 2.2. [4]

(ii) Use evidence from Fig. 2.2 to suggest the problems that housing density and housing type may cause for a family living in the area. [4]

(d) Describe the process of counter-urbansation. How far does this process cause problems for urban and rural areas? Give examples to support your answer. [7]
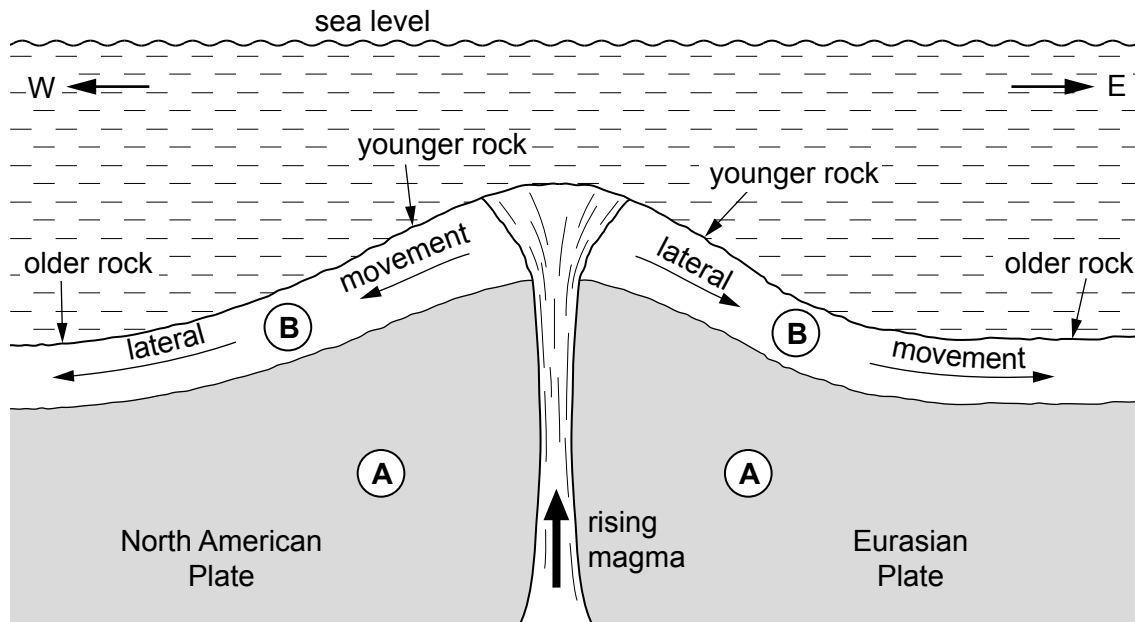
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Theme 2: The natural environment

Answer **one** question from this theme.

EITHER

3 **(a)** Study Fig. 3.1, which is a diagram of the Mid-Atlantic Ridge.

Diagram of the Mid-Atlantic Ridge

Fig. 3.1

  (i) Name the type of plate boundary shown on Fig. 3.1. [1]

  (ii) Identify the parts of the structure of the Earth shown at points **A** and **B** on Fig. 3.1. [2]

  (iii) Explain the processes taking place in Fig. 3.1. [3]

 (b) (i) Draw a labelled diagram of a shield volcano to show the main features. [4]

  (ii) Explain why some volcanic eruptions are more violent than others and can cause more damage. [4]

  (iii) Suggest how volcanic activity may have positive impacts for people. [4]

 (c) To what extent have prediction and evacuation plans reduced the danger of living near volcanoes? Give examples to support your answer. [7]
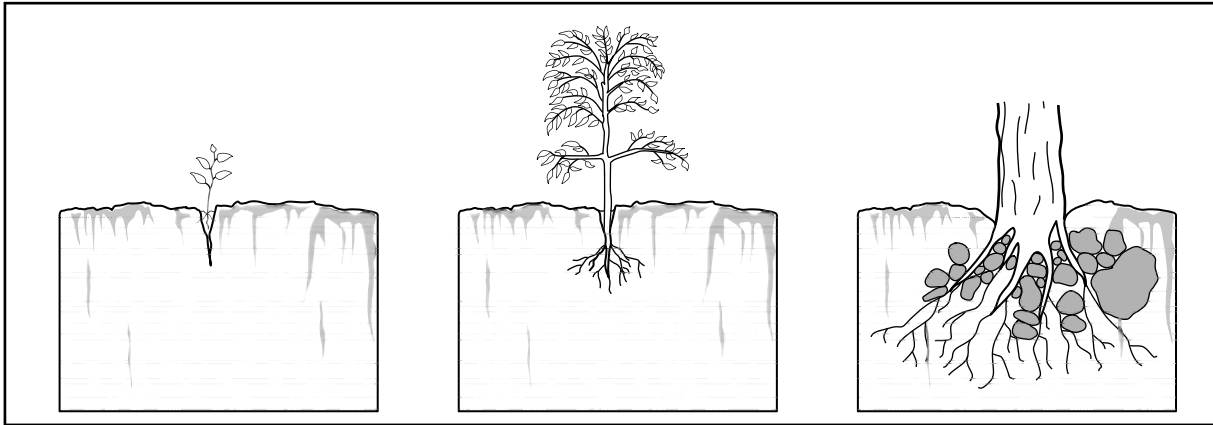
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Turn over for Question 4

 [Turn over

OR

4 **(a)** Define the term *weathering*. [1]

(b) Study Fig. 4.1 which shows biological weathering.

Biological weathering

Fig. 4.1

Describe how the biological weathering in Fig. 4.1 occurs. [3]

(c) Study Fig. 4.2 (Insert), a photograph which shows an area of limestone scenery.

(i) Describe **three** different features of the natural landscape of the area shown in Fig. 4.2. [3]
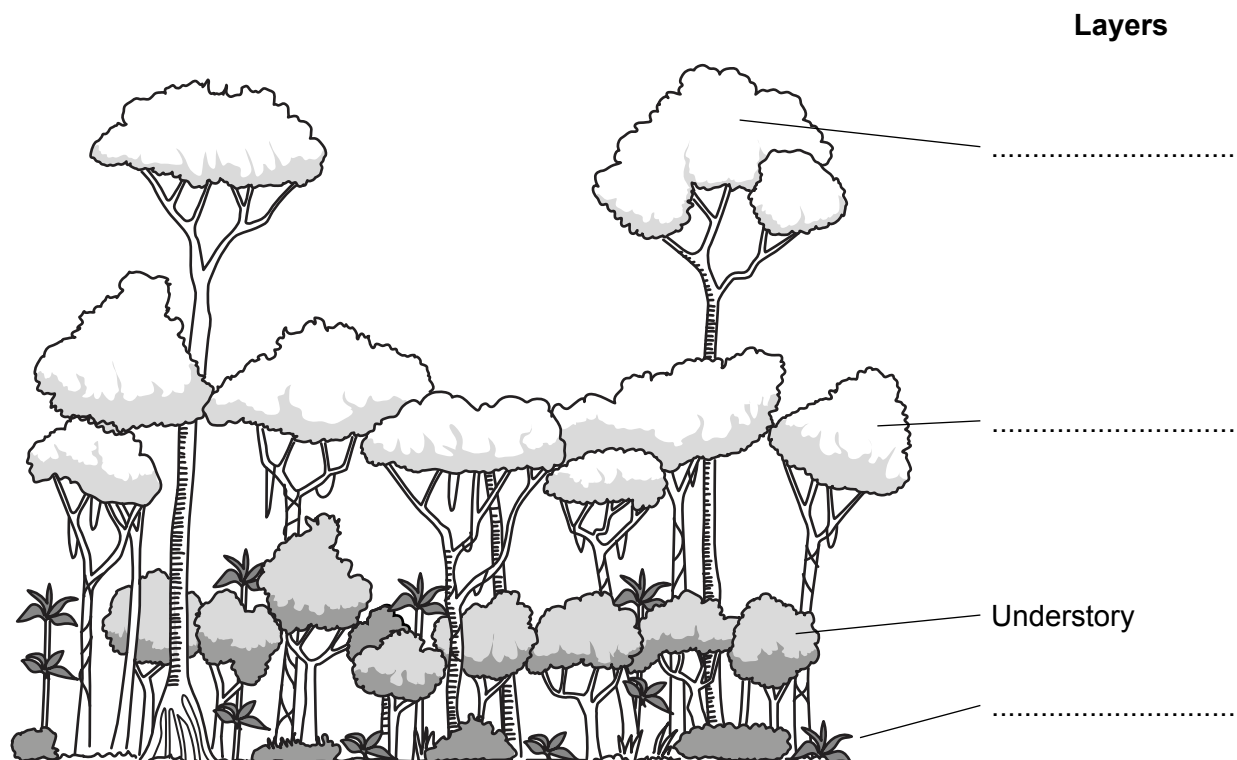
(ii) Explain how chemical processes cause weathering of limestone rock. [4]

(d) Study Fig. 4.3, which shows the structure of a tropical rainforest.

Label the layers in the tropical rainforest **on Fig. 4.3**.

Tropical rainforest: layers of vegetation

Layers

....

....

Understory

....

Fig. 4.3 [3]

(e) Explain how the tropical rainforest can be a resource for the local population. [4]

(f) Describe how agriculture causes deforestation in rainforests. How far do you agree that agriculture is the main cause of deforestation? Give examples to support your answer. [7]
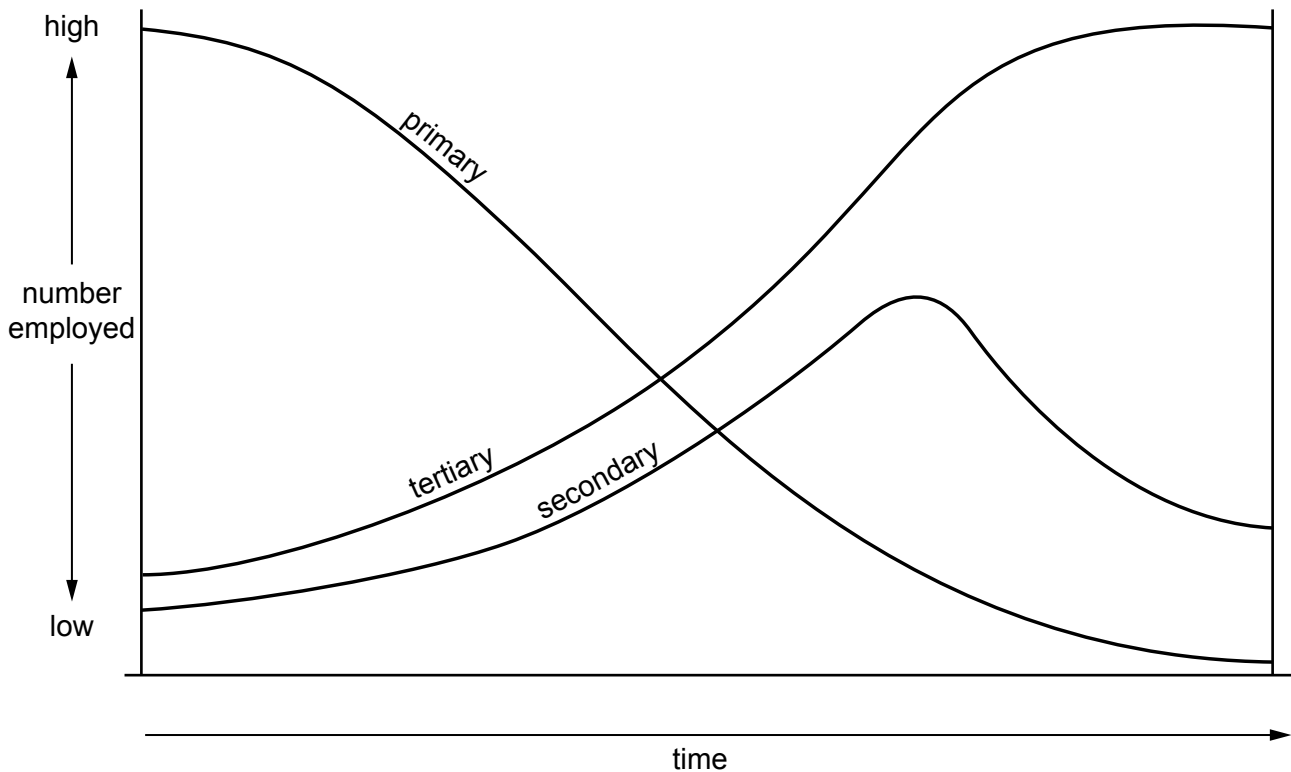
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Theme 3: Economic development

Answer **one** question from this theme.

EITHER

5 **(a)** Study Fig. 5.1, which shows changes in the percentage employed in different sectors of industry over time.

Employment in industrial sectors over time

Fig. 5.1

    (i) In Fig. 5.1, in which sector were most people originally employed? [1]

    (ii) Describe the changes in employment in each of the different sectors over time in Fig. 5.1. [3]

    (iii) Explain why the percentage employed in the primary sector in a country changes over time. [4]

    (b) **(i)** What is meant by the term *quaternary sector*? [1]

       (ii) Give **two** examples of jobs in the quaternary sector. [2]

(c) Study Fig. 5.2 (Insert), a photograph which shows the location of several factories.

    (i) Describe the factories and their locations shown in Fig. 5.2. [4]
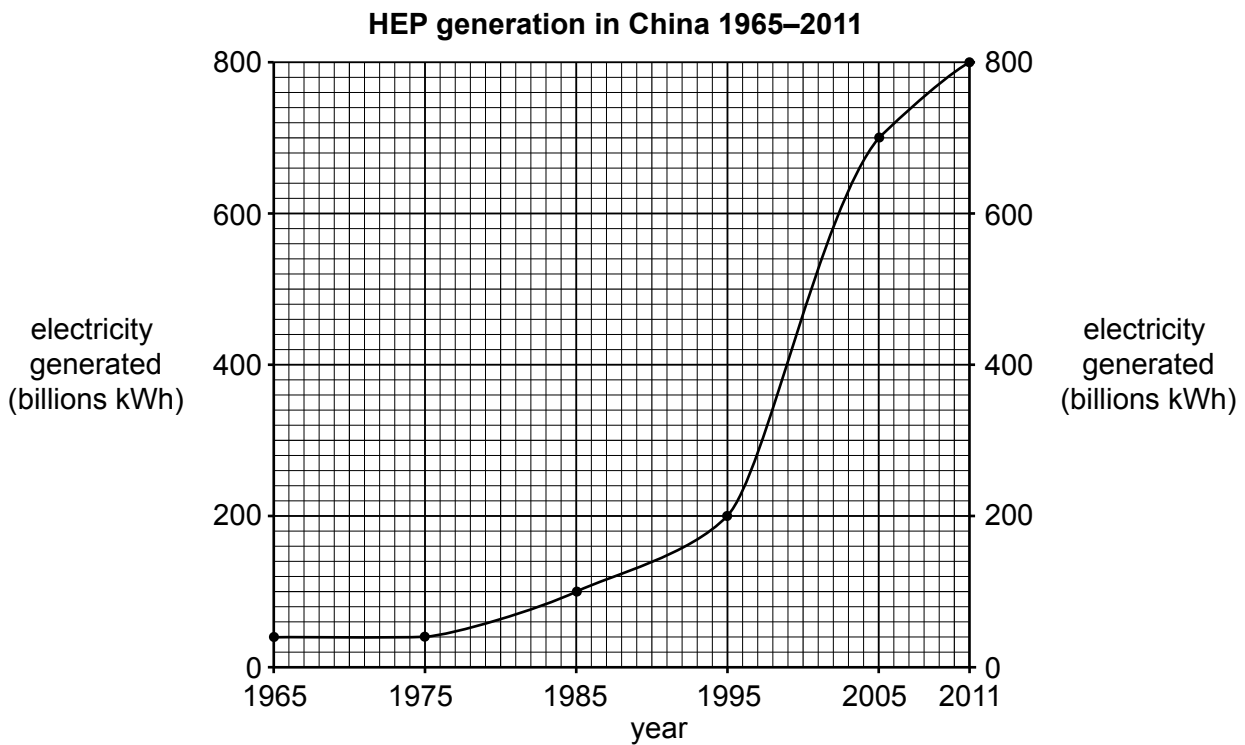
    (ii) Explain why some people might object to factories being built at locations such as that shown in Fig. 5.2. [3]

(d) Describe **two** factors affecting location of secondary industry in Brunei. Which of these factors is the more important? Use examples to support your answer. [7]

[Total: 25]

OR

6 **(a)** Study Fig. 6.1, which gives information about hydroelectric power (HEP) generation in China between 1965 and 2011.
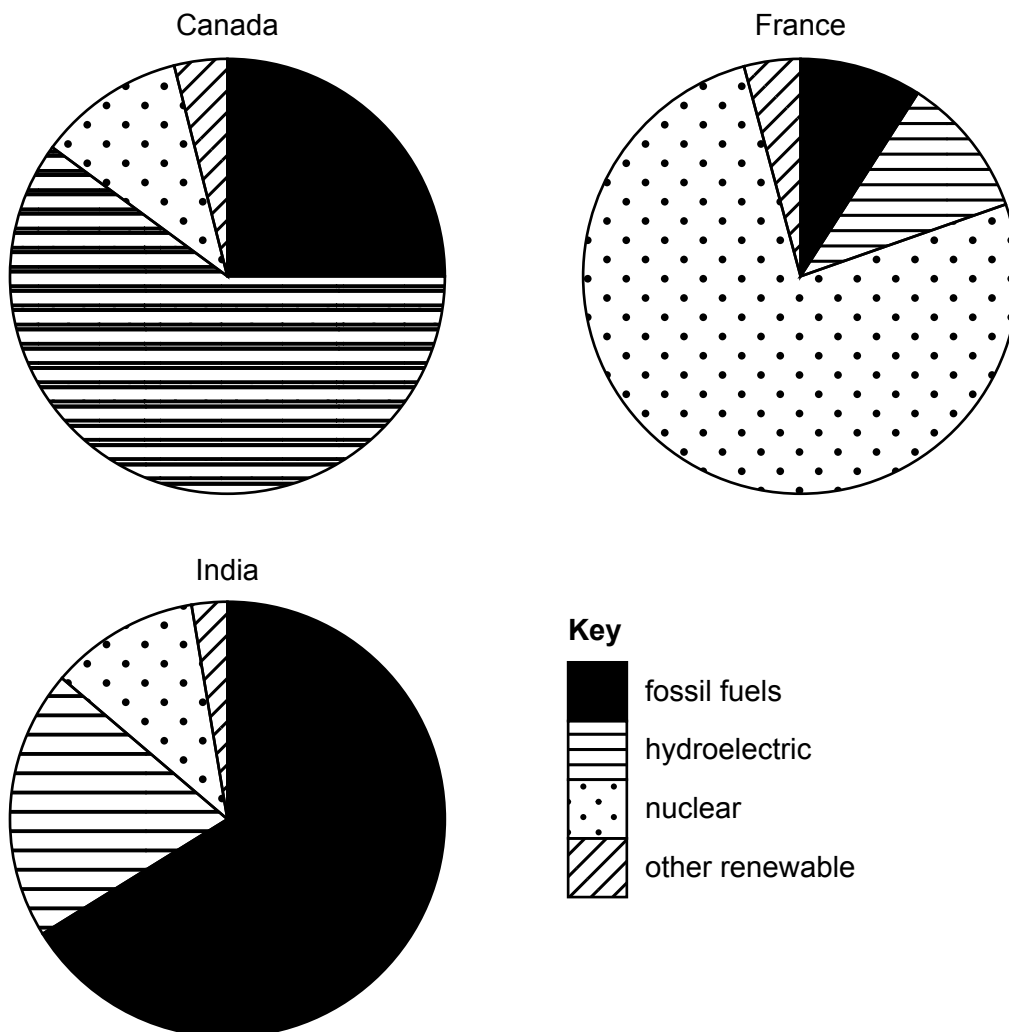
HEP generation in China 1965–2011

Fig. 6.1

(i) State the difference in the amount of HEP generated in China between 1965 and 2011.
[1]

(ii) Describe the changing trends in the amount of HEP generated in China between 1965 and 2011. [4]

(b) Study Fig. 6.2, which shows the sources of energy production for Canada, France and India in 2012.

Sources of energy production: Canada, France and India, 2012

Canada

France

India

Key

■ fossil fuels

▤ hydroelectric

⦙ nuclear

▨ other renewable

Fig. 6.2

(i) Which country generates most of its energy from nuclear power? Explain any disadvantages this may bring. [4]

(ii) Explain why a person concerned about the environment may be worried by the way India produces its energy. [4]

(iii) Suggest the advantages of hydroelectric power (HEP) schemes for the local area. [5]

(c) 'The importance of oil as an energy source is changing.' To what extent is Brunei adapting to this change? Support your answer with examples. [7]

[Total: 25]

14

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