Cambridge Assessment International Education

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CANDIDATE NAME	

CENTRE NUMBER						CANDIDATE NUMBER				

0151517999

GEOGRAPHY **0460/13**

Paper 1 Geographical Themes **May/June 2023**

1 hour 45 minutes

You must answer on the question paper.

You will need: Insert (enclosed)
Calculator
Protractor
Ruler

INSTRUCTIONS

- Answer **three** questions in total, **one** from each section.
- 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 or correction fluid.
- 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
MEDCs – More Economically Developed Countries
LEDCs – Less Economically Developed Countries

This document has **32** pages. Any blank pages are indicated.

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Section A

Answer **one** question from this section.

1 **(a)** Study Fig. 1.1 (Insert), which shows information about the average annual rate of population change between 2015 and 2020.

(i) Insert the following words in the equation below to show how overall population change is calculated.

death rate

migration

birth rate

..... – ..... +/– ..... = overall population change [1]

(ii) Using Fig. 1.1 **only**, put the following countries in rank order according to their average annual rate of population growth between 2015 and 2020.

Angola India Ukraine USA

1st ..... highest growth

2nd .....

3rd .....

4th ..... lowest growth [2]

(iii) Describe the distribution of countries with an **increase** in population of between 4.1 to 5%.

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..... [3]

(iv) Describe **four** problems that many people face in countries where population growth is rapid.

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4 .....

..... [4]

(b) Study Fig. 1.2, which shows two important factors which influence birth rates and death rates.

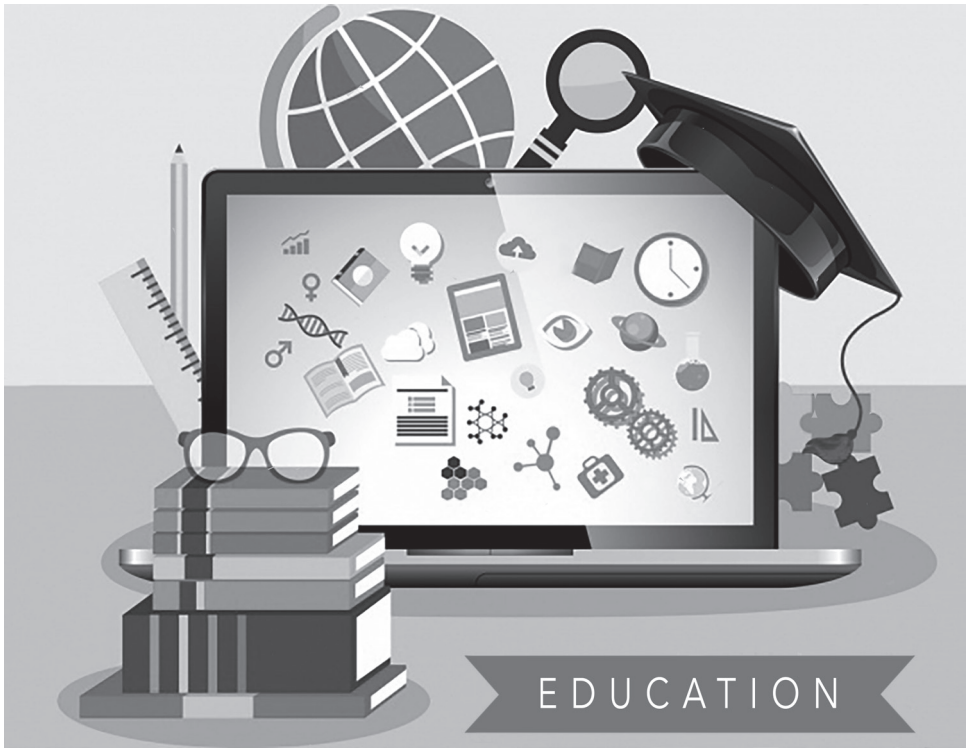

Fig. 1.2

(i) Explain how the availability of education can reduce **birth rates** in a country.

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..... [3]

(ii) Explain how improving access to good healthcare can reduce **death rates** in a country.

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..... [5]

(c) For an example you have studied, describe the positive impacts of international migration on the destination **and** origin countries of migrants.

Migration from ..... to .....

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[Total: 25]

2 **(a)** Study Fig. 2.1 (Insert), which is a map showing part of the Central Business District (CBD) of Harare, the capital city of Zimbabwe (an LEDC in Africa).

(i) Name an area of open space in the CBD of Harare.

..... [1]

(ii) Identify from Fig. 2.1:

the street which is pedestrianised .....

a form of public transport which serves the CBD of Harare. .....
[2]

(iii) Describe the street layout in the area shown on Fig. 2.1.

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..... [3]

(iv) Describe **and** suggest reasons for the location of the hospital which is shown on Fig. 2.1.

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..... [4]

(b) Study Figs. 2.2 and 2.3 (Insert), which are photographs taken in different parts of the CBD of Harare.

(i) Describe **three** differences between the parts of the CBD shown in Figs. 2.2 and 2.3.

1 .....

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2 .....

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3 .....

..... [3]

(ii) Suggest reasons why the shops and services in the CBD of Harare have a large sphere of influence.

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..... [5]

(c) For a named urban area you have studied, explain the causes of traffic congestion.

Name of urban area .....

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[Total: 25]

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Section B

Answer **one** question from this section.

3 **(a)** Study Fig. 3.1 (Insert), which shows information about earthquakes between January and June 2019.

(i) What was the magnitude of the earthquake in Costa Rica on 12 May 2019?

..... [1]

(ii) Identify the name of the country from Fig. 3.1 where the earthquake:

caused the most deaths .....

had the deepest focus. ..... [2]

(iii) Describe the distribution of earthquakes shown on Fig. 3.1.

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..... [3]

(iv) Describe the natural processes which cause earthquakes to occur at conservative plate boundaries.

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..... [4]

(b) Study Fig. 3.2, a cross-section which shows information about a volcanic eruption on Whakaari (White Island), New Zealand in December 2019.

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Fig. 3.2

(i) Using Fig. 3.2 **only**, identify **three** different hazards caused by the eruption of the volcano on Whakaari.

1 .....

2 .....

3 ..... [3]

(ii) Explain the causes of the eruption of the volcano on Whakaari.

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(c) For a named example you have studied, explain why people live close to a volcano.

Name of volcano .....

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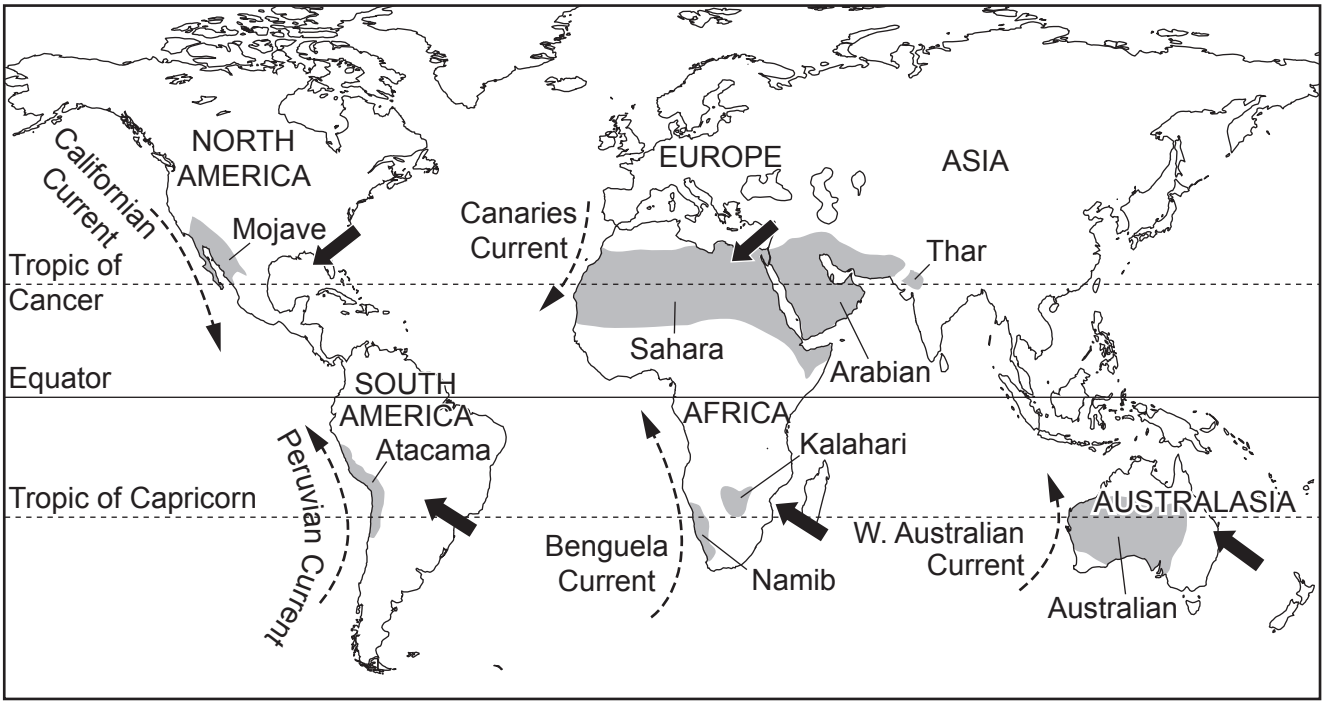
4 **(a)** Study Fig. 4.1, which is a map showing hot deserts.



Key

hot deserts

prevailing winds

cold ocean currents

Fig. 4.1

(i) Name the hot desert which occupies the largest area of land.

..... [1]

(ii) Describe **two** differences between the locations of the Atacama Desert and the Mojave Desert.

1 .....

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2 .....

..... [2]

(iii) Describe the global distribution of hot deserts.

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..... [3]

(iv) Suggest why the cold ocean current and prevailing winds cause rainfall totals to be low in the Atacama Desert.

cold ocean currents .....

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prevailing winds .....

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..... [4]

(b) Study Fig. 4.2, which is a diagram showing different cloud types.

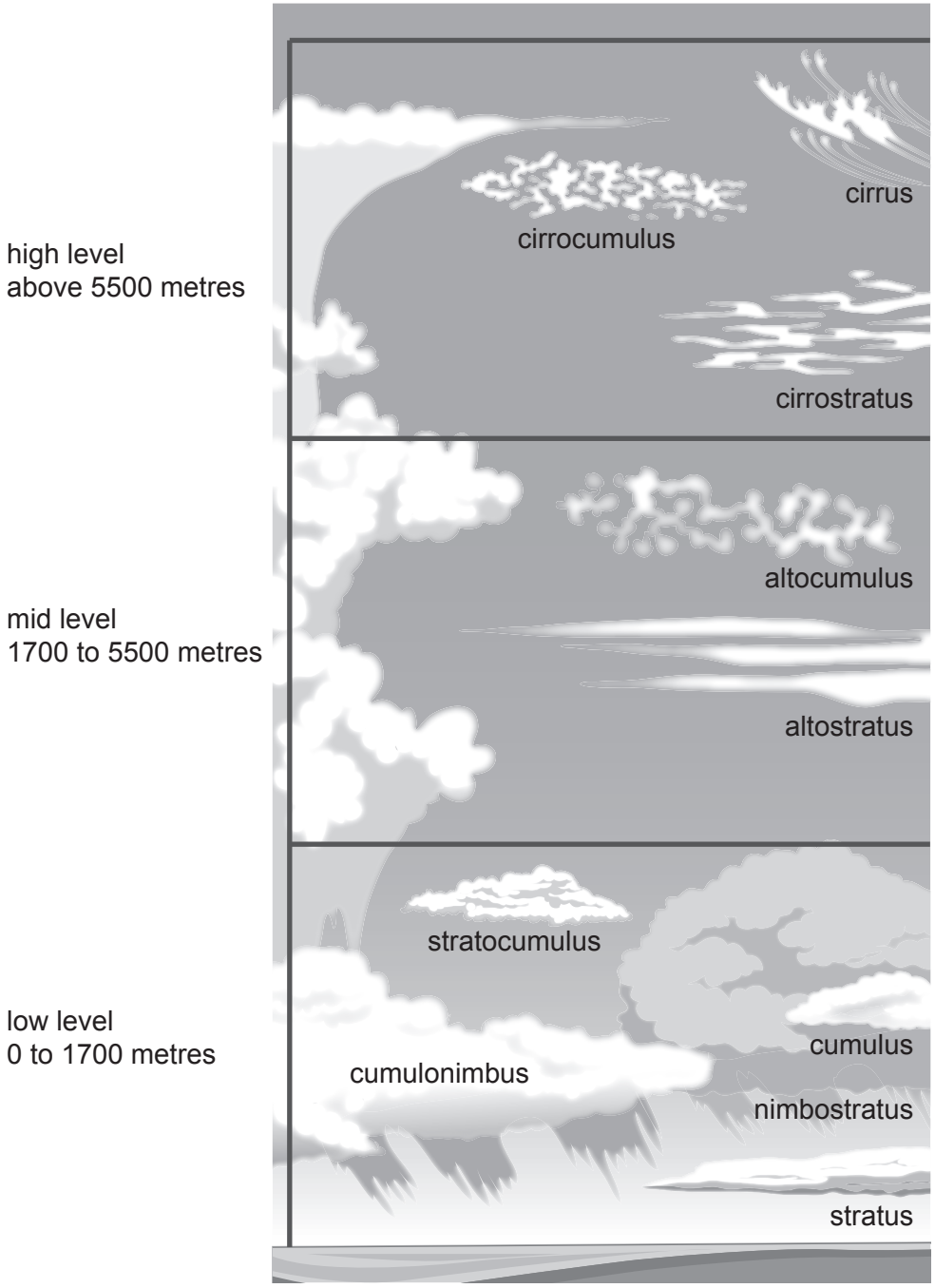

Fig. 4.2

(i) Using Fig. 4.2 **only**, compare the characteristics of altostratus and cirrus clouds.

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..... [3]

(ii) Describe the processes which result in the daily formation of cumulonimbus clouds which result in heavy rainfall in equatorial areas.

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..... [5]

(c) For a named area of **hot desert** which you have studied, describe **and** explain the characteristics of its vegetation.

Name of desert .....

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Section C

Answer **one** question from this section.

5 **(a)** Study Fig. 5.1, which shows information about the employment structure of Nigeria in 1990, 2005 and 2020, along with Figs. 5.2, 5.3 and 5.4 (Insert), which are photographs of workers in Nigeria (an LEDC in Africa).

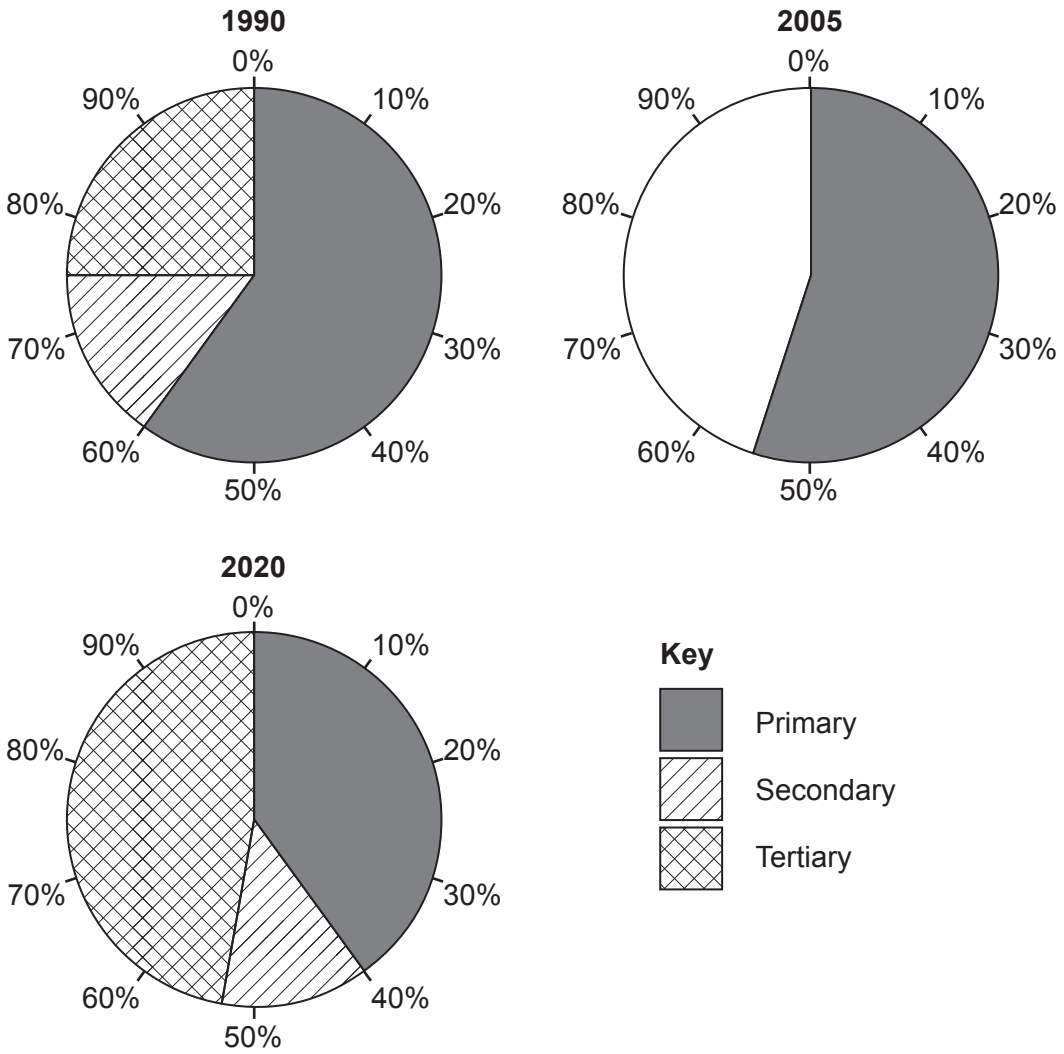

Fig. 5.1

(i) Insert the words below into the correct spaces to identify the sectors of employment shown in Figs. 5.2, 5.3 and 5.4.

Primary Secondary Tertiary

Fig. 5.2 .....

Fig. 5.3 .....

Fig. 5.4 ..... [1]

(ii) **Complete Fig. 5.1** by plotting the following information for 2005:

Secondary 10%

Tertiary 35% [2]

(iii) Describe **three** changes in the employment structure of Nigeria between 1990 and 2020. Do **not** use statistics in your answer.

1 .....

.....

2 .....

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3 .....

..... [3]

(iv) Explain the importance of jobs, such as that shown in Fig. 5.2 (Insert), to an LEDC such as Nigeria.

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..... [4]

(b) Study Fig. 5.5, which is a table showing four development indicators for selected countries in Asia.

	Human Development Index (HDI)	energy use per person (kg oil equivalent)	access to internet (% of total population)	malnourished children (% of total number of under 5-year-olds)
Bangladesh	0.632	201	15	31
China	0.761	1695	54	8
India	0.645	560	35	35
Indonesia	0.718	850	40	30

Fig. 5.5

(i) State **three** pieces of evidence from Fig. 5.5 that show that Indonesia is more developed than India.

1 .....

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2 .....

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3 .....

..... [3]

(ii) Describe the differences between the Human Development Index (HDI) and Gross National Product (GNP) per capita as indicators of development.

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..... [5]

(c) Explain why the process of globalisation has occurred.
You should refer to different places and examples.

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6 **(a)** Study Fig. 6.1, which shows information about the types of energy used for electricity generation in the different states of Australia.

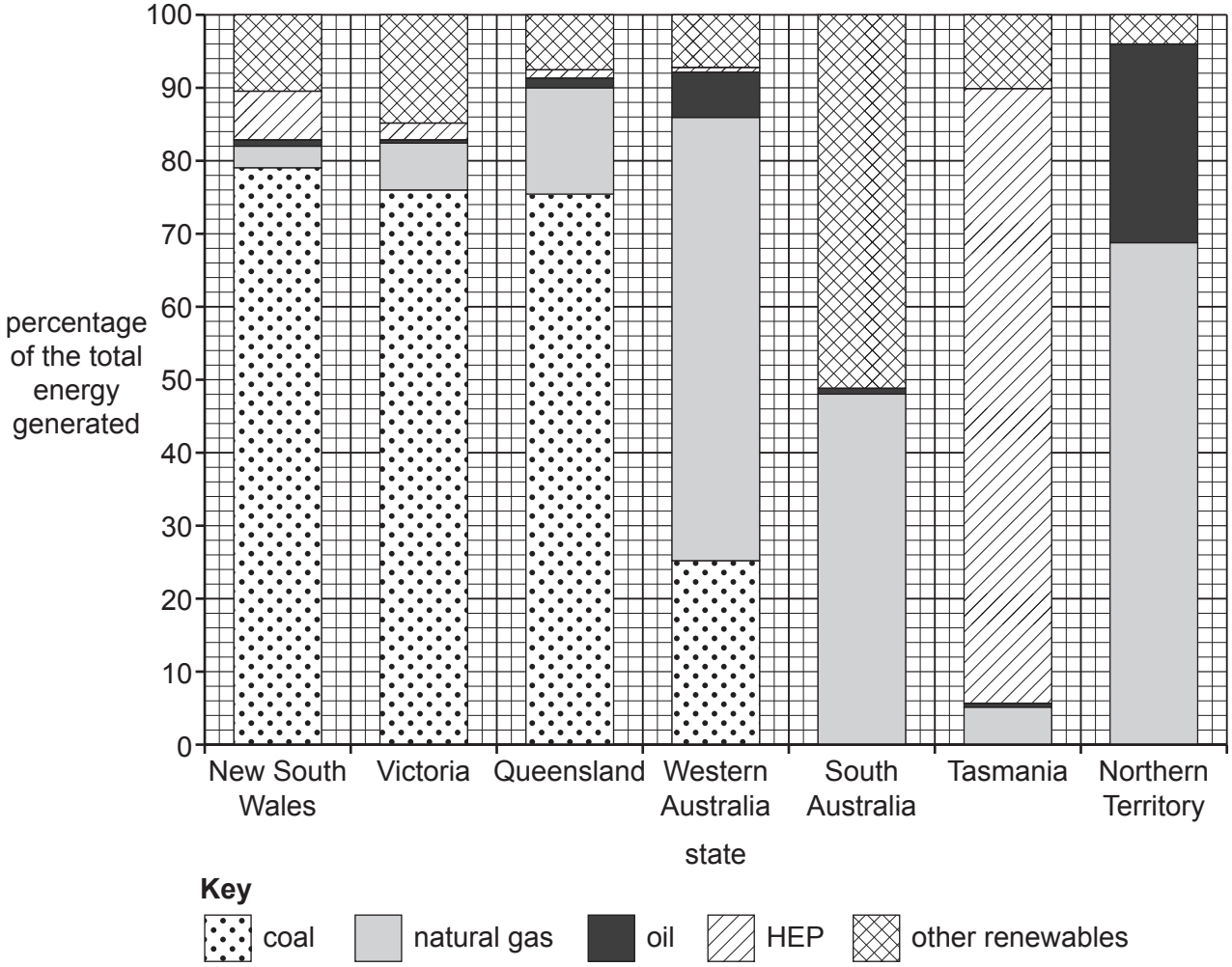

Fig. 6.1

(i) Which Australian state uses the highest percentage of oil for electricity generation?

..... [1]

(ii) Using Fig. 6.1, put the fuels used for electricity generation in Western Australia in rank order of importance. One has been done for you.

1st ..... most important

2nd .....

3rd other renewables

4th .....

5th ..... least important [2]

(iii) Compare the percentage of **three** different types of energy used for electricity generation in Queensland and Tasmania. Do **not** use statistics in your answer.

1 .....

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2 .....

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3 .....

..... [3]

(iv) Suggest reasons for the variation in importance of HEP and other renewable forms of energy in the different states of Australia.

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(b) Study Fig. 6.2, which shows information about oil and natural gas in Australia.

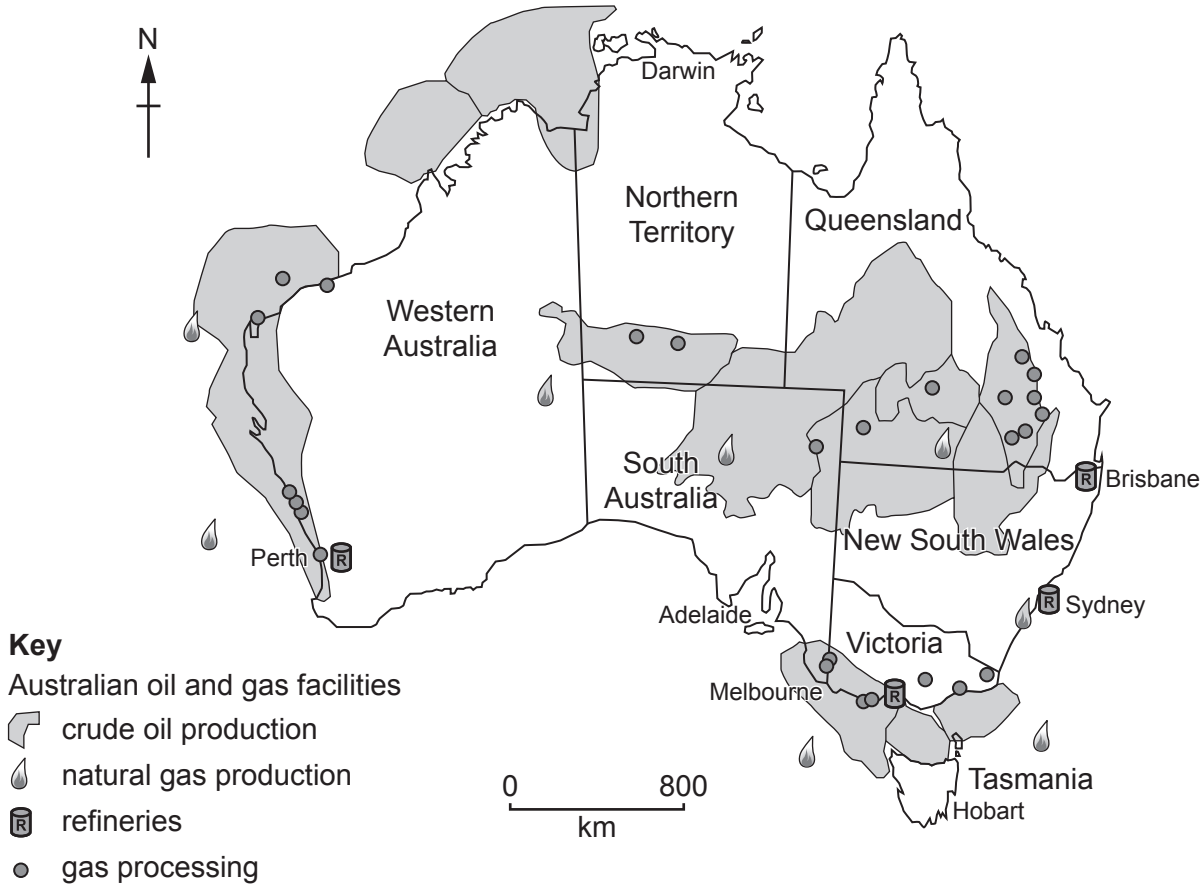

Fig. 6.2

(i) Using Fig. 6.2 **only**, describe the distribution of crude oil production in Australia.

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..... [3]

(ii) Explain why many countries are reducing their dependence on fossil fuels such as oil and natural gas.

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..... [5]

(c) For an example you have studied, describe **and** explain the location of a factory or zone of manufacturing industry.

Location .....

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[Total: 25]

Additional pages

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