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Cambridge Assessment International Education

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GEOGRAPHY **0460/12**

Paper 1 Geographical Themes **May/June 2022**

1 hour 45 minutes

You must answer on the question paper.

You will need: Insert (enclosed)
Calculator
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 **24** pages. Any blank pages are indicated.

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Section A

Answer **one** question from this section.

1 **(a)** Study Fig. 1.1, which shows information about population growth in Australia (an MEDC).

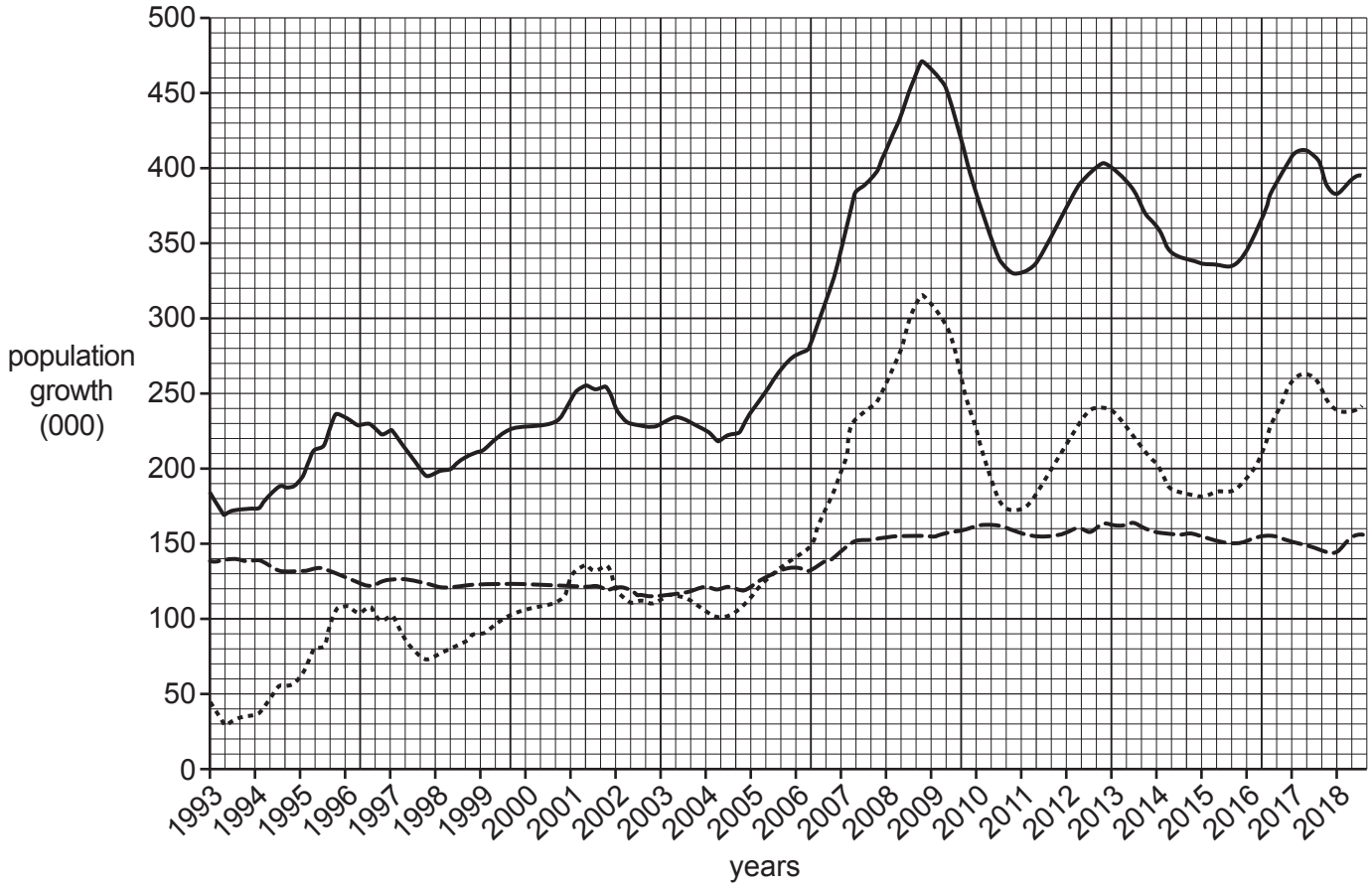


Fig. 1.1

(i) In which year was total population growth the highest in Australia?

.....

[1]

(ii) Identify from Fig. 1.1 a year when:

– net international migration and natural increase were the same amount

.....

– total population growth decreased.

.....

[2]

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(iii) Explain how the following are calculated:

natural increase

.....

.....

net international migration

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.....

total population growth.

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..... [3]

(iv) Using Fig. 1.1, compare natural increase and net international migration between 1993 and 2018. You should refer to years and use statistics in your answer.

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(b) Study Fig. 1.2, which shows information about population growth in The Gambia (an LEDC in Africa).

> The Gambia has had a consistently high population growth rate of 4.2% for the last thirty years. 'The main reasons include polygamy, the fact that the use of contraceptives is not common and a general reduction in infant mortality rates.'
>
> Since 1993 a family planning programme has attempted to increase the use of modern contraceptives and reproductive health services in The Gambia. An increase in the use of contraceptives has been achieved through community health nurses and information campaigns.

Fig. 1.2

(i) Suggest **three** reasons why the use of contraceptives is not common in The Gambia.

1 .....

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2 .....

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3 .....

..... [3]

(ii) Explain why it is difficult to reduce natural population growth rates in LEDCs, such as The Gambia, even though the use of contraception has recently increased.

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..... [5]

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(c) For a named country you have studied, describe the problems caused by a high rate of population growth.

Name of country .....

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2 **(a)** Study Fig. 2.1, which shows the results of a survey showing the world's ten best and ten worst cities in which to live.

The ten best cities to live in

country	city	overall rating (100 = ideal)	security	healthcare	environment	education	infrastructure
Austria	Vienna	99.1	100	100	96.3	100	100
Australia	Melbourne	98.4	95	100	98.6	100	100
Australia	Sydney	98.1	95	100	97.2	100	100
Japan	Osaka	97.7	100	100	93.5	100	96.4
Canada	Calgary	97.5	100	100	90	100	100
Canada	Vancouver	97.3	95	100	100	100	92.9
Canada	Toronto	97.2	100	100	97.2	100	89.3
Japan	Tokyo	97.2	100	100	94.4	100	92.9
Denmark	Copenhagen	96.8	95	95.8	95.4	100	100
Australia	Adelaide	96.6	95	100	94.2	100	96.4

The ten worst cities to live in

country	city	overall rating (100 = ideal)	security	healthcare	environment	education	infrastructure
Venezuela	Caracas	46.9	35	33.3	56.3	66.7	53.6
Algeria	Algiers	44.1	50	45.8	45.4	50	30.4
Cameroon	Douala	44	60	25	48.4	33.3	42.9
Zimbabwe	Harare	42.6	40	20.8	58.6	66.7	35.7
Papua New Guinea	Port Moresby	41	30	37.5	47	50	46.4
Pakistan	Karachi	40.9	20	45.8	38.7	66.7	51.8
Libya	Tripoli	40.4	35	41.7	40.3	50	41.1
Bangladesh	Dhaka	39.2	55	29.2	40.5	41.7	26.8
Nigeria	Lagos	38.5	20	37.5	53.5	33.3	46.4
Syria	Damascus	30.7	20	29.2	40.5	33.3	32.1

Fig. 2.1

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(i) Name a country which has three of the ten best cities in which to live.

..... [1]

(ii) State **two** different types of infrastructure in a city.

1 .....

2 ..... [2]

(iii) Suggest **three** different ways that the environment may cause problems for people living in the ten worst cities.

1 .....

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2 .....

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3 .....

..... [3]

(iv) Using Fig. 2.1 **only**, explain why Vienna is a better city in which to live than Damascus. You should **not** use statistics.

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(b) Study Fig. 2.2, which shows information about the functions of cities.

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Fig. 2.2

(i) What is meant by the following functions?

commercial .....

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residential .....

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industrial .....

..... [3]

(ii) Explain why many large cities have an administrative function.

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(c) For a named urban area you have studied, describe the problems caused by urban sprawl for the surrounding natural environment.

Name of urban area .....

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Section B

Answer **one** question from this section.

3 **(a)** Study Fig. 3.1, which is a map showing hot deserts.

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Fig. 3.1

(i) On Fig. 3.1, **draw a labelled arrow** to name a hot desert. [1]

(ii) Using Fig. 3.1 **only**, describe the distribution of hot deserts.

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..... [2]

(iii) Describe the typical climate of an area of hot desert.

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..... [3]

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(iv) Explain how the following factors influence the climate of an area of hot desert.

direction of prevailing wind .....

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atmospheric pressure .....

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..... [4]

(b) Study Fig. 3.2 (Insert), which is a photograph of hot desert vegetation.

(i) Using Fig. 3.2 **only**, describe **three** features of the vegetation shown.

1 .....

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2 .....

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3 .....

..... [3]

(ii) Explain how vegetation, such as that shown in Fig. 3.2, can survive in a hot desert.

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(c) For an area you have studied with an **equatorial climate**, describe and explain the climatic characteristics.

Name of area .....

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4 **(a)** Study Fig. 4.1 (Insert), which is a photograph of an area of sand dunes.

(i) Which **one** of the following statements best describes the location of the sand dunes shown in Fig. 4.1?
Tick (✓) the correct statement in the table below.

	tick (✓)
close to the sea at low tide level	
on a headland next to the cliff edge	
on the beach between high and low tide levels	
near the top of the beach above high tide level	

[1]

(ii) Describe **two** characteristics of the sand dunes shown in Fig. 4.1.

1 .....

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2 .....

..... [2]

(iii) Suggest how the sand dunes shown in Fig. 4.1 were formed.

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..... [3]

(iv) Many areas of sand dunes are located on spits.
Explain how a **spit** is formed.

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(b) Study Fig. 4.2 (Insert), which is a photograph of an area of coastline.

(i) Describe the characteristics of the bay shown in Fig. 4.2.

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..... [3]

(ii) Suggest how the bay shown in Fig. 4.2 has been formed.

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(c) For a named area you have studied, explain the hazards faced by coastal communities as a result of natural processes.

Name of coastal area .....

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Section C

Answer **one** question from this section.

5 **(a)** Study Figs. 5.1 and 5.2 (Insert), which are photographs of two different farms.
Fig. 5.1 shows extensive farming.
Fig. 5.2 shows intensive farming.

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

.....

..... [1]

(ii) Describe the agricultural land use in the areas shown in each of Fig. 5.1 and Fig. 5.2.

Fig. 5.1 .....

.....

Fig. 5.2 .....

..... [2]

(iii) State **three** ways in which a farmer is able to increase the yield per hectare by **intensive** farming.

1 .....

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2 .....

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3 .....

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(iv) Explain why a location close to a market is important for many farmers.

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(b) Study Fig. 5.3 (Insert), which is a map showing areas where grapes are grown in part of the Rhône Valley, Switzerland.

(i) Using Fig. 5.3 **only**, describe the distribution of the areas where grapes are grown.

1 .....

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2 .....

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3 .....

..... [3]

(ii) Suggest reasons for the distribution of the areas where grapes are grown in the part of the Rhône Valley shown in Fig. 5.3.

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(c) For a named country or region you have studied, describe the impacts of food shortages.

Name of country or region .....

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[Total: 25]

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6 **(a)** Study Fig. 6.1 (Insert), which shows information about sources of energy which were used for electricity production in four countries in Europe in 2019.

(i) What percentage of Germany's electricity was generated from coal?

..... [1]

(ii) Identify **two** differences between the use of fossil fuels for generating electricity in Austria and Germany.

1 .....

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2 .....

..... [2]

(iii) Using Fig. 6.1 **only**, compare the importance of nuclear power in the countries shown.

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..... [3]

(iv) Explain why some governments do not choose to use nuclear power as a source of energy.

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(b) Study Fig. 6.2 (Insert), which is a photograph showing an area where electricity is generated using wind turbines in the Netherlands (an MEDC in Europe).

(i) Suggest why this method of electricity generation is possible at this location.

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(ii) Describe the benefits and disadvantages of using wind power as a form of energy.

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(c) For a named country you have studied, explain how **water supply** is being managed to meet present and future demand.

Name of country .....

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Additional pages

If you use the following pages to complete the answer to any question, the question number must be clearly shown.

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