Cambridge Assessment International Education

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CENTRE NUMBER						CANDIDATE NUMBER				

3028454725

GEOGRAPHY **0460/12**

Paper 1 Geographical Themes **May/June 2024**

1 hour 45 minutes

You must answer on the question paper.

You will need: Insert (enclosed) Ruler
Calculator
Protractor

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.

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Section A

Answer **one** question from this section.

1 **(a)** Study Fig. 1.1, information about population growth in China.

China introduced a one-child policy in 1979 to stop over-population. Now China is worried about under-population.

In the 1970s, the Chinese government was worried about how fast its population was growing. More people need more food, more homes and more jobs, and population growth can also damage the natural environment. It was believed that this would create problems, so the government decided to introduce the one-child policy.

China kept the policy. However, in 2013, all married couples were permitted to have up to two children and recently this was increased to three. One of the reasons for these changes was that China is now worried about under-population. A society that has fewer children becomes a society that has fewer working adults. That means fewer people making things to sell, fewer people growing food, fewer people paying taxes, fewer people to support older family members and fewer people to join a country's armed forces.

Fig. 1.1

(i) Define *over-population*.

.....

..... [1]

(ii) Using Fig. 1.1 **only**, identify **two** problems which over-population was causing for **people** living in China in the 1970s.

1 .....

.....

2 .....

..... [2]

(iii) Describe the problems which over-population may cause to the **natural environment**.

.....

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..... [3]

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(iv) Suggest why the government of China was concerned about the following impacts of **under-population**:

fewer people were paying taxes

.....

.....

fewer people were available to join the armed forces

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fewer people were growing food

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.....

fewer people were making things to sell.

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..... [4]

(b) Study Fig. 1.2 (Insert), a map showing when deaths are expected to be higher than births in different countries.

(i) Describe the distribution of countries where deaths were higher than births before 2024.

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(ii) Explain how birth rates are being reduced in many LEDCs.

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(c) For a country you have studied, explain why it attracts many international migrants.

Name of country .....

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[Total: 25]

2 **(a)** Study Fig. 2.1 (Insert), a graph showing information about the number of people living in urban areas between 1950 and 2050 (estimated).

(i) What was the total urban population in 2000?

..... billion [1]

(ii) Compare the urban population living in North America in 1950 with 2050 (estimated). Use statistics to support your answer.

.....

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.....

..... [2]

(iii) Put the following continents in rank order according to their urban population in 1950, 2000 and 2050 (estimated).

Africa Asia Europe

1950

first ..... highest

second .....

third ..... lowest

2000

first ..... highest

second .....

third ..... lowest

2050 (estimated)

first ..... highest

second .....

third ..... lowest [3]

(iv) Describe **four** different problems faced by people living in large urban areas in LEDCs.

1 .....

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2 .....

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3 .....

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4 .....

..... [4]

(b) Study Fig. 2.2 (Insert), a photograph taken in Mumbai, an urban area in India (an LEDC in Asia).

(i) Describe **three** characteristics of the housing shown by **X** in Fig. 2.2.

1 .....

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2 .....

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3 .....

..... [3]

(ii) Explain why urban areas are attractive to migrants from rural areas in LEDCs.

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(c) For an area you have studied, describe and explain the service provision.

Name of area .....

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[Total: 25]

Section B

Answer **one** question from this section.

3 **(a)** Study Fig. 3.1 (Insert), a map showing coral reefs and mangroves on the island of Pohnpei (in the Pacific Ocean).

(i) What is the distance across the island of Pohnpei from west to east at the widest point?

..... km [1]

(ii) Compare the distribution of coral reefs and mangroves.

.....

.....

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..... [2]

(iii) Describe **three** different characteristics of a coral reef.

1 .....

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2 .....

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3 .....

..... [3]

(iv) Describe the conditions that are required for the development of a coral reef.

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..... [4]

(b) Study Fig. 3.2 (Insert), a photograph showing mangroves.

(i) Using Fig. 3.2 **only**, describe the features of the mangroves.

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..... [3]

(ii) Explain how coral reefs and mangroves can benefit people living on the coast.

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(c) Explain how a spit is formed in a coastal area. Include a labelled diagram.

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[Total: 25]

4 **(a)** Study Fig. 4.1 (Insert), a diagram of the hydrological cycle.

(i) Tick (✓) the sentence that defines *hydrological cycle*.

	tick (✓)
The hydrological cycle describes different forms of precipitation.	
The hydrological cycle describes processes by which rivers erode and deposit materials.	
The hydrological cycle describes reasons why flooding occurs.	
The hydrological cycle describes ways water moves through the land, ocean and atmosphere.	

[1]

(ii) Identify the processes which occur at **A** and **B** in Fig. 4.1.

A .....

B ..... [2]

(iii) Draw arrows to match the names of the processes with their definitions in the following table.

process	definition
channel flow	water changes into water vapour
condensation	water moves from the soil into the rocks
evaporation	water moves in a river
percolation	water vapour becomes liquid

[3]

(iv) Explain why:

transpiration varies from time to time

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overland flow varies from place to place.

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..... [4]

(b) Study Figs. 4.2 and 4.3 (Insert), photographs of different rivers in Scotland, in the UK.

(i) Describe **three** differences between the natural characteristics of the **rivers** shown in Figs. 4.2 and 4.3.

1 .....

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2 .....

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3 .....

..... [3]

(ii) Explain how rivers, such as those shown in Figs. 4.2 and 4.3, erode their banks and bed.

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..... [5]

(c) Explain how a river you have studied has been managed to reduce the risk of flooding.

Name of river .....

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[Total: 25]

Section C

Answer **one** question from this section.

5 **(a)** Study Figs. 5.1 and 5.2 (Insert), maps of South Africa, in southern Africa.
Fig. 5.1 shows the main agricultural land uses.
Fig. 5.2 shows the annual rainfall.

(i) What agricultural land use occupies the largest area in South Africa?

..... [1]

(ii) Using Fig. 5.1 **only**, identify **two** crops grown within 100 km of Pretoria.

1 .....

2 ..... [2]

(iii) Using Figs. 5.1 and 5.2 **only**, explain how the amount of rainfall influences agricultural land use.

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..... [3]

(iv) Some parts of South Africa experience tropical storms.
Describe the problems this may create for farmers.

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..... [4]

(b) Study Figs. 5.3 and 5.4 (Insert), photographs of two different types of farm.

(i) State **three** differences between the farms shown in Figs. 5.3 and 5.4.

1 .....

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2 .....

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3 .....

..... [3]

(ii) Explain how agricultural output can be increased.

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..... [5]

(c) For a farm or agricultural system which you have studied, describe the inputs, processes and outputs.
You may draw a systems diagram.

Name of farm or agricultural system .....

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[7]

[Total: 25]

6 **(a)** Study Figs. 6.1 and 6.2, graphs showing information about air pollution in the USA (an MEDC in North America).

The main types of air pollution in the USA

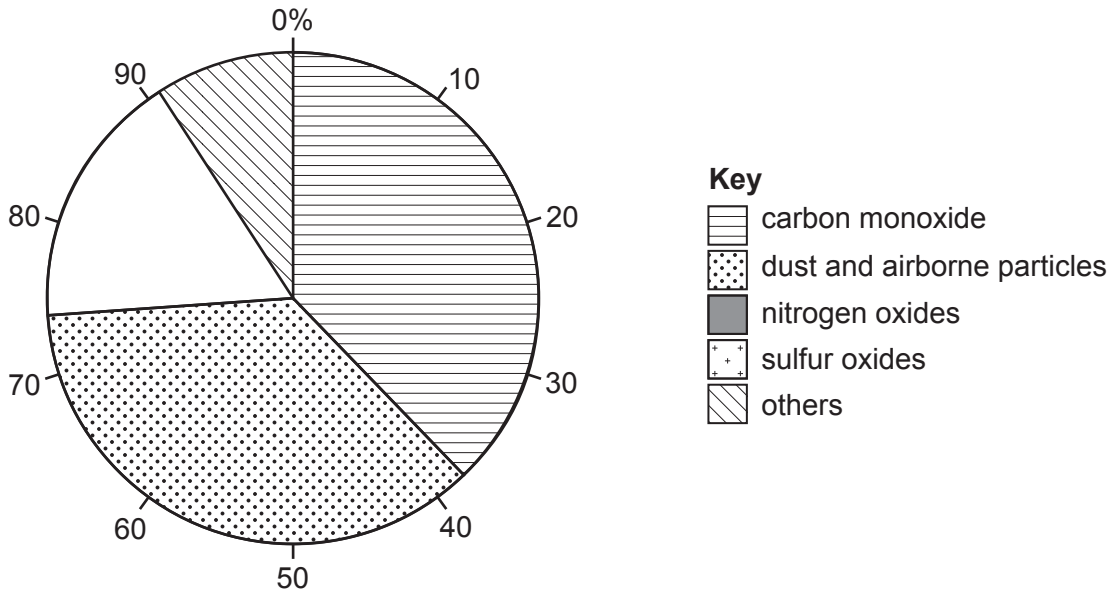


Fig. 6.1

The main sources of air pollution in the USA

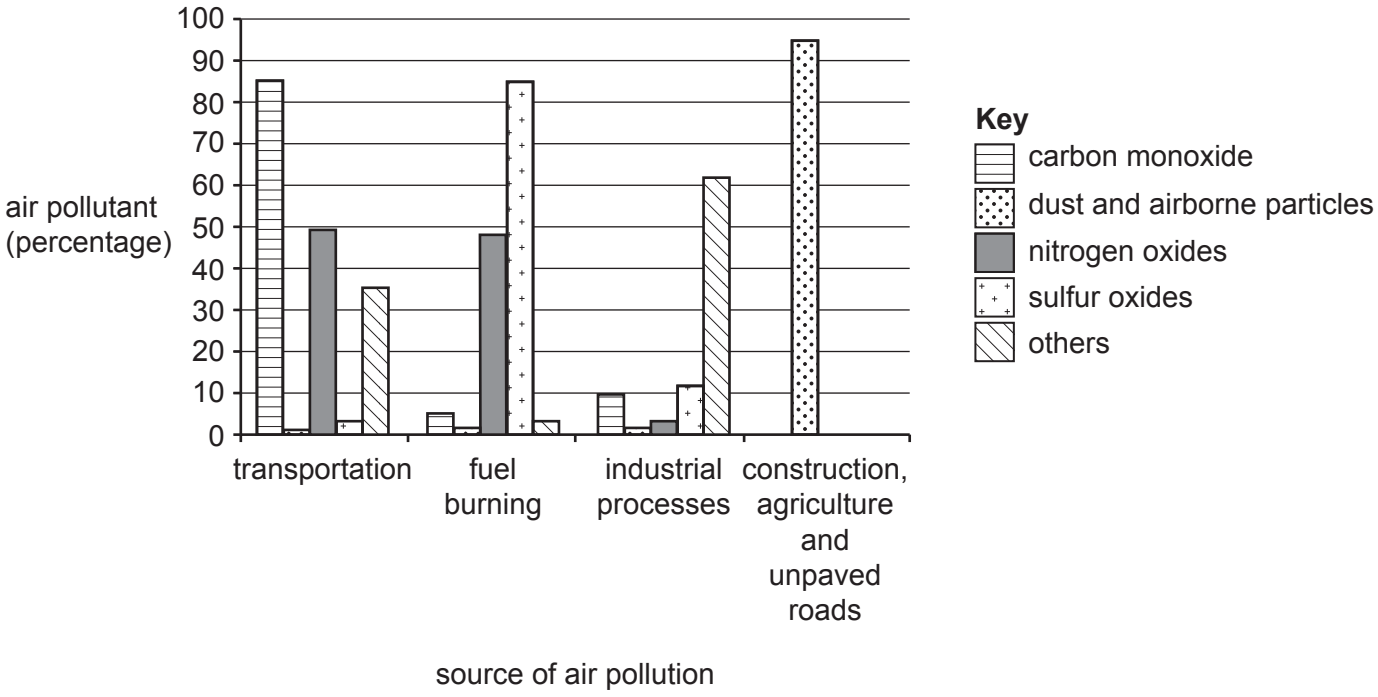


Fig. 6.2

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(i) Using Fig. 6.1, state the percentage of air pollution in the USA caused by carbon monoxide.

.....% [1]

(ii) **Complete Fig. 6.1** by plotting the following information:

nitrogen oxides 9%

sulfur oxides 8%. [2]

(iii) Using Fig. 6.2 **only**, identify **three** differences between the percentage of carbon monoxide, nitrogen oxides and sulfur oxides from transportation and industrial processes. Do **not** use statistics.

carbon monoxide .....

.....

nitrogen oxides .....

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sulfur oxides .....

..... [3]

(iv) Describe the impacts of air pollution.

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..... [4]

(b) Study Fig. 6.3, a table showing the results of a survey about the popularity of six methods of reducing air pollution in urban areas.

method of reducing air pollution	**young people (under 20) agreeing with method (%)**	**older people (over 20) agreeing with method (%)**
plant more trees in urban areas	41	51
build more public transport networks	36	46
build more cycle lanes in cities	25	23
reduce prices of electric cars	31	33
restrict the sale of new petrol and diesel cars	27	21
restrict the use of wood fires in homes	22	27

Fig. 6.3

(i) Using Fig. 6.3 **only**, state **three** conclusions about the popularity of the different methods of reducing air pollution in urban areas.
Refer to both young people and older people in each of your conclusions.
Do **not** use statistics.

1 .....

.....

2 .....

.....

3 .....

..... [3]

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(ii) Fig. 6.3 shows six methods for reducing air pollution. Which method do you think is most effective?
Justify your answer by referring to the advantages of the method you have chosen and the disadvantages of **one** of the methods you rejected.

Method chosen .....

advantages .....

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Method rejected .....

disadvantages .....

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..... [5]

(c) For an example you have studied, describe the impacts of a transnational corporation (TNC) on the people living in an LEDC.

Name of transnational corporation (TNC) .....

Name of LEDC .....

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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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