Cambridge Assessment International Education

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9170703347

GEOGRAPHY **0460/11**

Paper 1 Geographical Themes **May/June 2021**

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 **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, which shows information about four countries.

country	area (km^2)	population	population density (per km^2)
Australia	7 682 300	24 450 561	3
China	9 388 211	1 409 517 397	150
Saudi Arabia	2 149 690	32 939 213	
USA	9 147 420	324 459 463	35

Fig. 1.1

(i) Which **one** of the following countries is most sparsely populated? Circle your answer below.

Australia China USA [1]

(ii) In the box below, calculate the population density of Saudi Arabia. You should include your calculations and give an answer to the nearest whole number. [2]

..... per km^2

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(iii) Many parts of Saudi Arabia are hot deserts, as shown in Fig. 1.2 (Insert).
Explain why areas like those shown in Fig. 1.2 have a **low** population density.

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..... [3]

(iv) Suggest reasons why many coastal lowland areas, such as the area shown in Fig. 1.3 (Insert), have a **high** population density.

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..... [4]

(b) Study Fig. 1.4, which shows information about the factors influencing population growth.

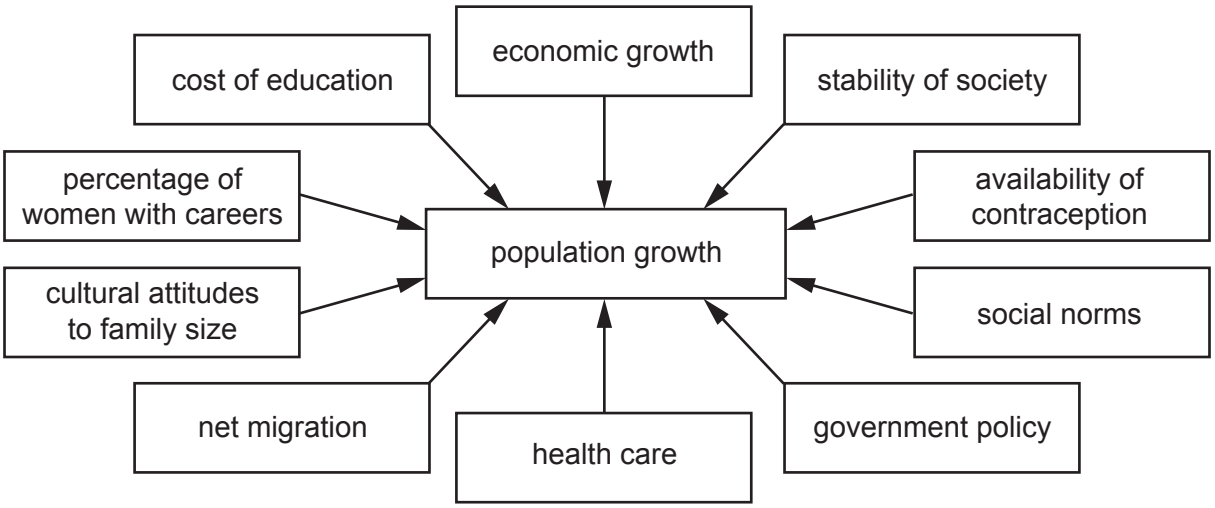


Fig. 1.4

(i) Explain how each of the following can affect population growth rates:

percentage of women with careers

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.....

.....

government policy

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net migration.

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..... [3]

(ii) Explain why improvements in health care can lead to changes in population growth rates.

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(c) For a named country you have studied, describe the problems which have been caused by a rapid growth in its population.

Country .....

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TURN PAGE FOR QUESTION 2

2 **(a)** Study Fig. 2.1, which is a diagram showing a settlement hierarchy.

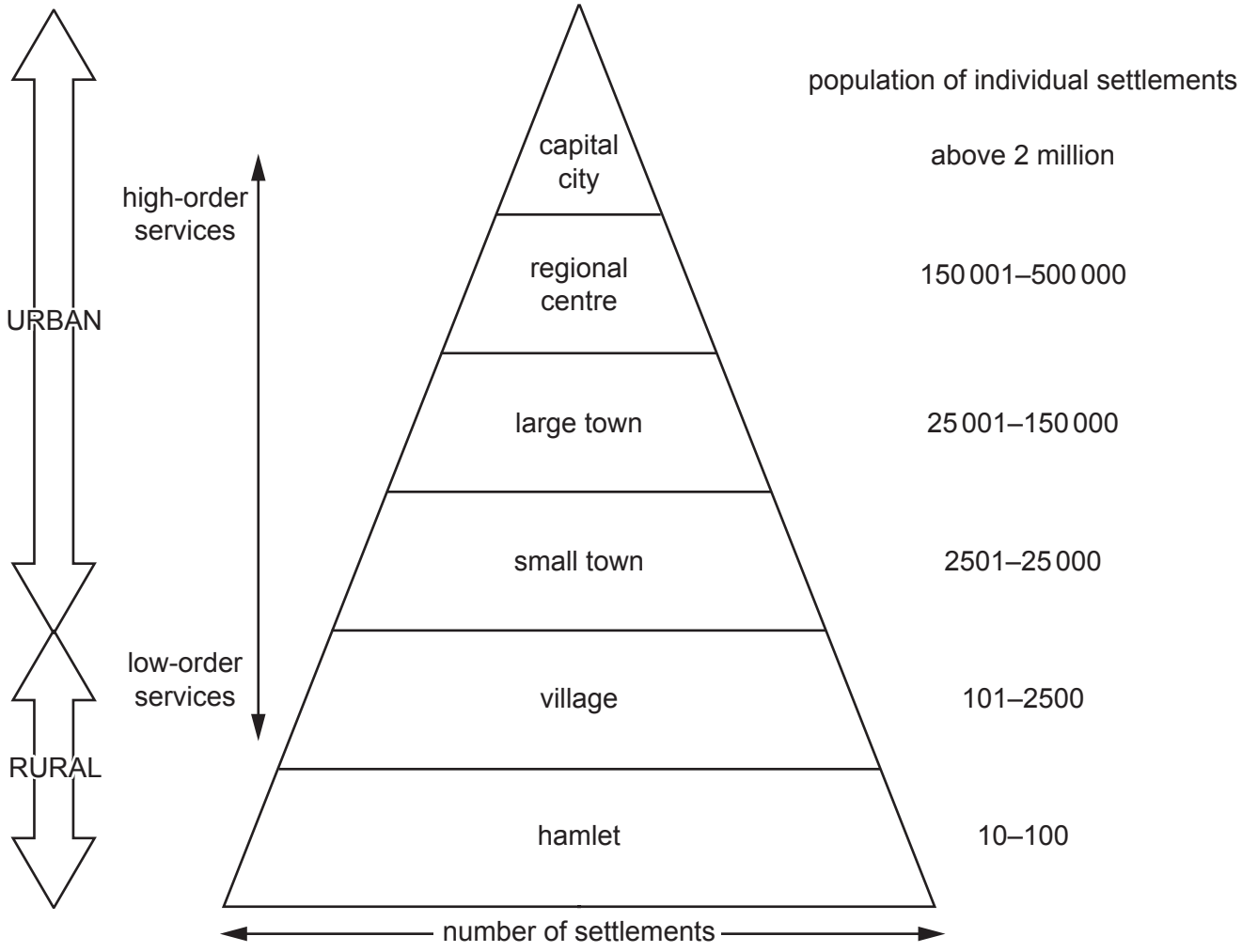


Fig. 2.1

(i) What is meant by the term *hierarchy* of settlements?

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..... [1]

(ii) Describe the relationship between:

the population size and number of settlements

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.....

the size of settlements and the order of services they provide.

.....

..... [2]

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(iii) Using Fig. 2.1, identify the type of settlement described in each of the following:

a small settlement with a primary school which is surrounded by farmland

.....

a large settlement with headquarters of many large businesses and national government buildings

.....

a settlement which has a few houses and no services.

..... [3]

(iv) Describe **four** differences between low-order and high-order services using the following headings:

sphere of influence

.....

.....

threshold population

.....

.....

frequency of use

.....

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range. .....

..... [4]

(b) Study Fig. 2.2, which shows information about the functions of settlements, along with Figs. 2.3, 2.4 and 2.5 (Insert), which are photographs of different settlements.

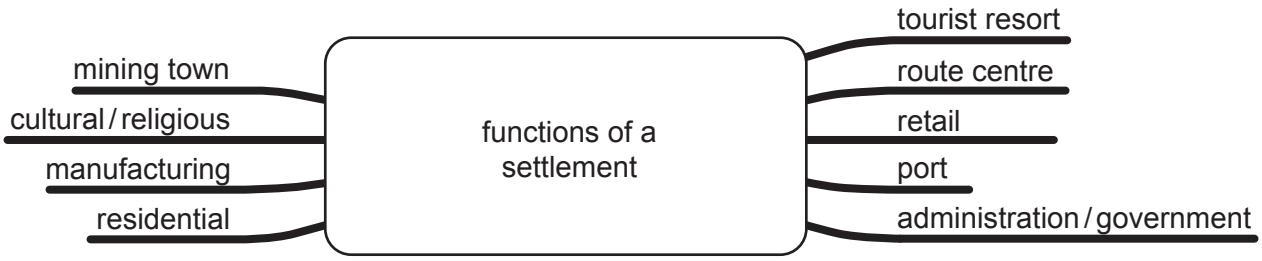


Fig. 2.2

(i) Identify the function of the settlement shown in each of Figs. 2.3, 2.4 and 2.5.
For each photograph you should choose a different function listed in Fig. 2.2.

Fig. 2.3 .....

Fig. 2.4 .....

Fig. 2.5 ..... [3]

(ii) Choose one of the functions listed in Fig. 2.2.
Explain why some settlements have that function.

Function .....

Explanation .....

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..... [5]

(c) For a named urban settlement you have studied, describe the causes and effects of **one** problem faced by the people living there.

Name of settlement ....

Problem ....

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Section B

Answer **one** question from this section.

3 **(a)** Study Fig. 3.1, which shows information about the weather recorded in Manilla, Australia, in October 2018.

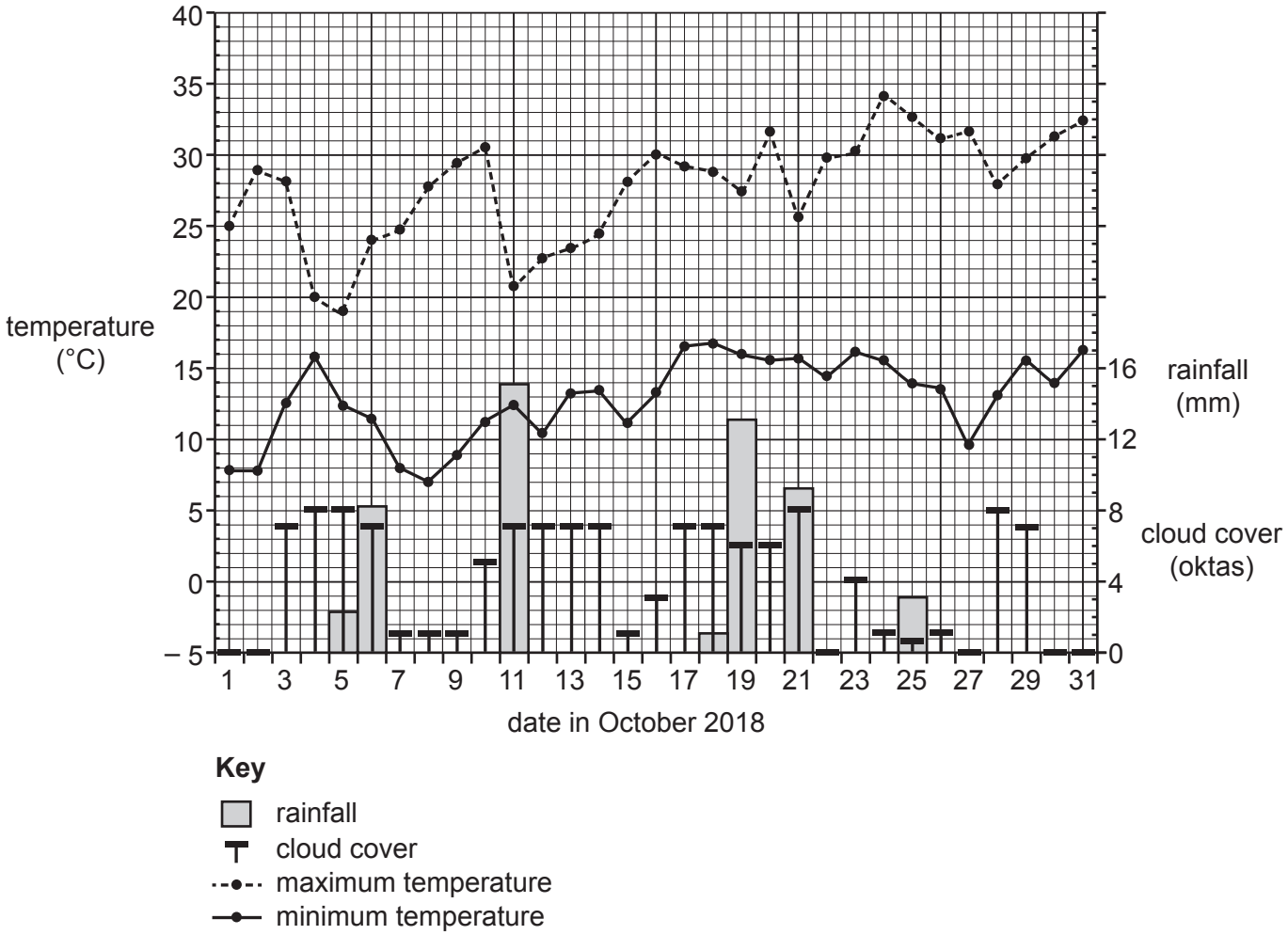


Fig. 3.1

(i) What was the cloud cover at Manilla on 12 October?

..... oktas [1]

(ii) Identify from Fig. 3.1:

the date which had most rainfall .....

the date with the smallest range of temperature. ..... [2]

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(iii) Using Fig. 3.1 **only**, compare the weather at Manilla on 19 and 25 October.
Do **not** use statistics in your answer.

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..... [3]

(iv) State **two** other characteristics of weather that can be measured at a weather station.
For each characteristic, name the instrument used to measure it.

Weather characteristic 1 .....

Instrument .....

Weather characteristic 2 .....

Instrument ..... [4]

(b) Study Fig. 3.2, which shows part of the instructions for siting a digital weather recording instrument.

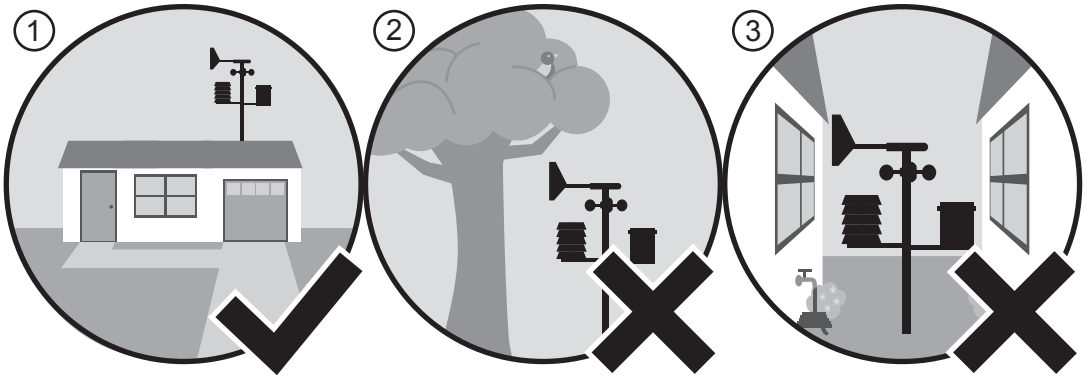


Fig. 3.2

(i) Using the diagrams in Fig. 3.2 **only**, give **three** pieces of advice about the location of the weather recording instrument.

1 .....

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2 .....

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3 .....

..... [3]

(ii) Explain the advantages of using digital weather recording instruments rather than traditional instruments.

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(c) For a named river you have studied, explain the causes of flooding.

Name of river ....

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4 **(a)** Study Fig. 4.1, which is a cross-section showing the circulation of the atmosphere in tropical areas.

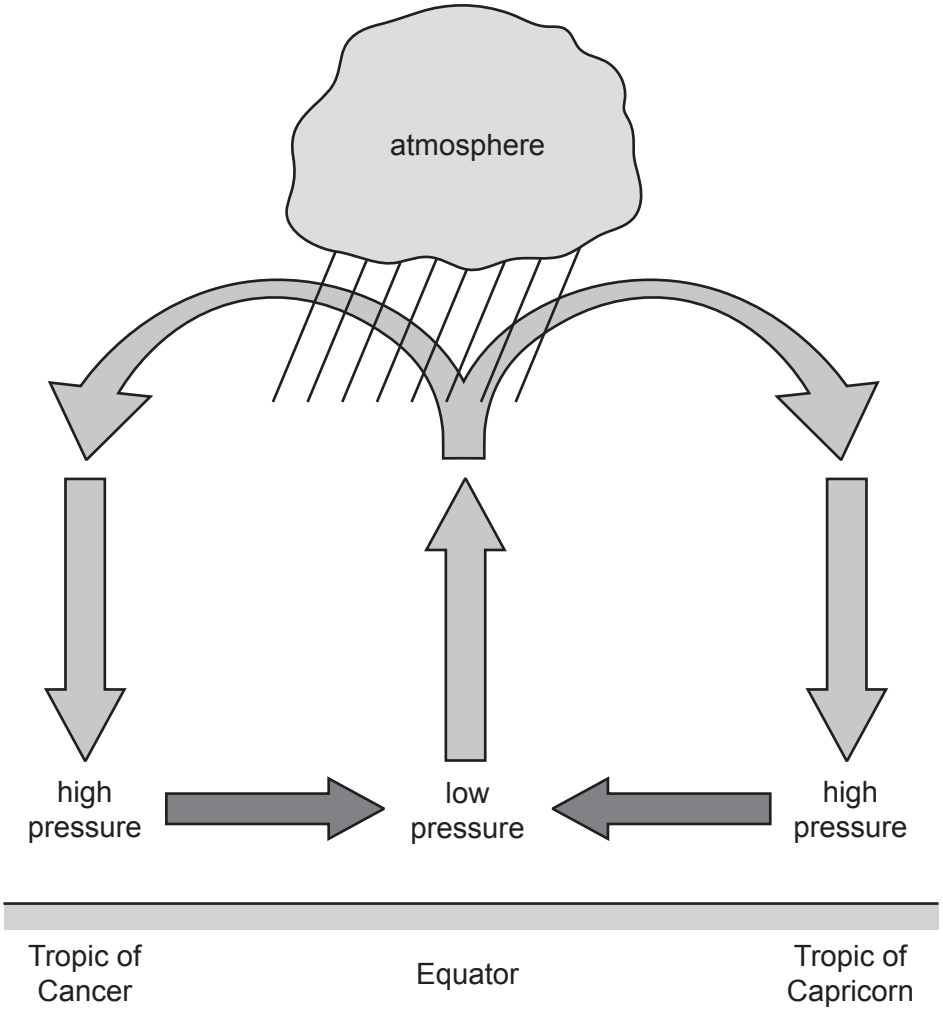


Fig. 4.1

(i) On Fig. 4.1, mark an **X** to show the position of **one** area of hot desert. [1]

(ii) Explain why temperatures are high in areas of equatorial and hot desert climate.

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..... [2]

(iii) Many deserts are inland. Explain why this results in low amounts of rainfall.

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..... [3]

(iv) Describe the processes which result in large amounts of rainfall in areas of equatorial climate.

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..... [4]

(b) Study Fig. 4.2 (Insert), which is a photograph which was taken in an area of hot desert.

(i) Give **three** pieces of evidence to suggest that Fig. 4.2 was taken in an area of hot desert.

1 .....

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2 .....

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3 .....

..... [3]

(ii) Explain how wildlife (animals) are able to survive in a hot desert environment.

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..... [5]

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(c) For a named area of **tropical rainforest** you have studied, describe the impacts of deforestation on the **local** natural environment.

Name of area ....

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[Total: 25]

Section C

Answer **one** question from this section.

5 **(a)** Study Fig. 5.1, which shows information about the relationship between two indicators of development.

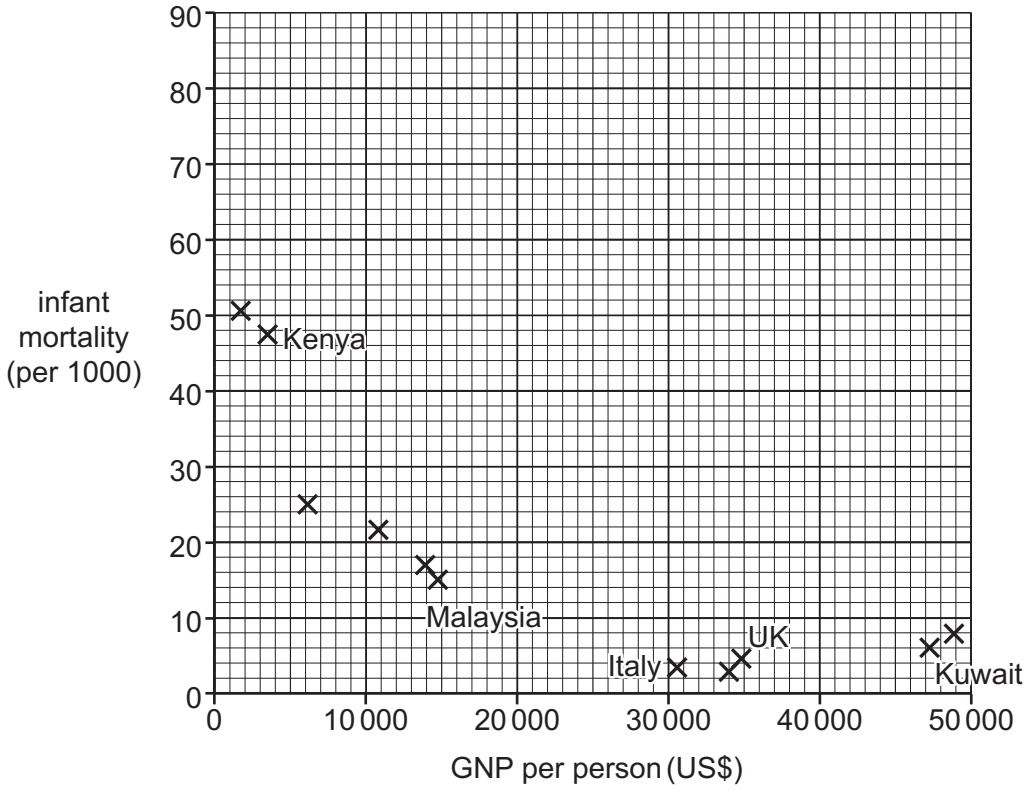


Fig. 5.1

(i) **Draw a best-fit line** on Fig. 5.1. [1]

(ii) Use examples of **two** of the countries labelled in Fig. 5.1 to show that there is an inverse (negative) relationship between infant mortality rate and GNP per person.
Use statistics in your answer.

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..... [2]

(iii) Explain why there is an inverse (negative) relationship between GNP per person and infant mortality rate.

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..... [3]

(iv) The Human Development Index (HDI) is another indicator of development.
Tick (✓) the **four** correct statements about HDI in the table below.

	tick (✓)
All countries with high HDI have small populations.	
HDI figures are measured per 1000 of the population.	
HDI is a composite indicator of development.	
HDI is the same as GDP per person.	
HDI scores for every country are between 0 and 1.	
Most people who live in a country with a high HDI will be poor.	
Many people who live in a country with a low HDI will not have completed secondary education.	
The lower the HDI, the shorter the life expectancy is likely to be.	
There will be more people per doctor where HDI is higher.	

[4]

(b) Study Fig. 5.2 (Insert), which shows a prediction for energy use per person in different parts of the world in 2030.

(i) Using Fig. 5.2 **only**, describe the predicted variation in the use of energy per person in the world.

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..... [3]

(ii) Explain why some parts of the world use large amounts of energy per person.

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(c) For a named transnational corporation (TNC) you have studied, describe the advantages and disadvantages it brings for people at a **local scale**.

Name of transnational corporation ....

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6 **(a)** Study Fig. 6.1, which is a map showing the locations of three different factories in an area in Italy (an MEDC in Europe).

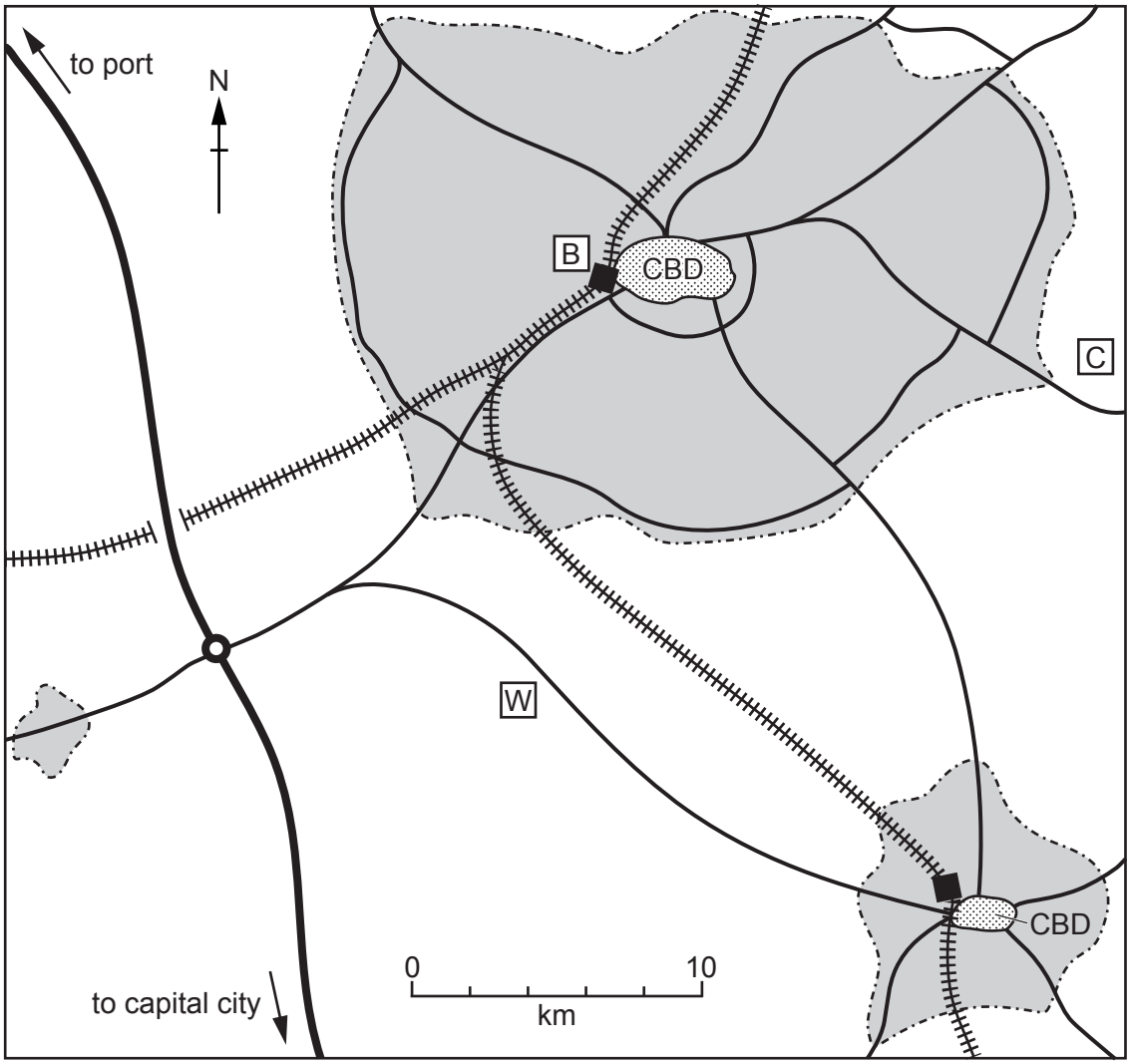


Fig. 6.1

(i) Identify the factory shown in Fig. 6.1 which is an example of assembly industry.

..... [1]

(ii) Using Fig. 6.1, state **two** differences between the locations of the bakery and the cement factory.

1 .....

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2 .....

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..... [2]

(iii) Explain why a location close to a market was chosen by the owners of the bakery.

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..... [3]

(iv) Explain **two** advantages of the location of the washing machine factory, which was built in 2018.

1 .....

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2 .....

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..... [4]

(b) Study Fig. 6.2 (Insert), which shows information about the location of selected manufacturing industries in Italy.

(i) Compare the importance of manufacturing industry in north and south Italy.

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..... [3]

(ii) Explain how manufacturing industry may increase the rate of global warming.

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..... [5]

(c) For a named area you have studied, explain how economic activity is managed to reduce the risks to the natural environment.

Name of area ....

Economic activity ....

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Additional Pages

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