

GCSE GEOGRAPHY

Paper 2 Challenges in the human environment

Specimen

Time allowed: 1 hour 30 minutes

Materials

For this paper you must have:

- a pencil
- a ruler.

Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the bottom of this page.
- Answer **all** questions in Section A and Section B.
- Answer Question 3 and **one** other question in Section C.
- You must answer the questions on the spaces provided. Do **not** write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The total number of marks available for this paper is 88.
- Spelling, punctuation, grammar and specialist terminology will be assessed in Question 01.9.

Advice


For the multiple-choice questions, completely fill in the circle alongside the appropriate answer(s).


CORRECT METHOD



WRONG METHODS



If you want to change your answer you must cross out your original answer as shown. 

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown. 

Please write clearly, in block capitals, to allow character computer recognition.

Centre number

Candidate number

Surname

Forename(s)

Candidate signature _____

Section A Urban issues and challenges

Answer **all** questions in this section.

Question 1 Urban issues and challenges

Study **Figure 1**, showing information about urban change.

Figure 1

Living in an urban world

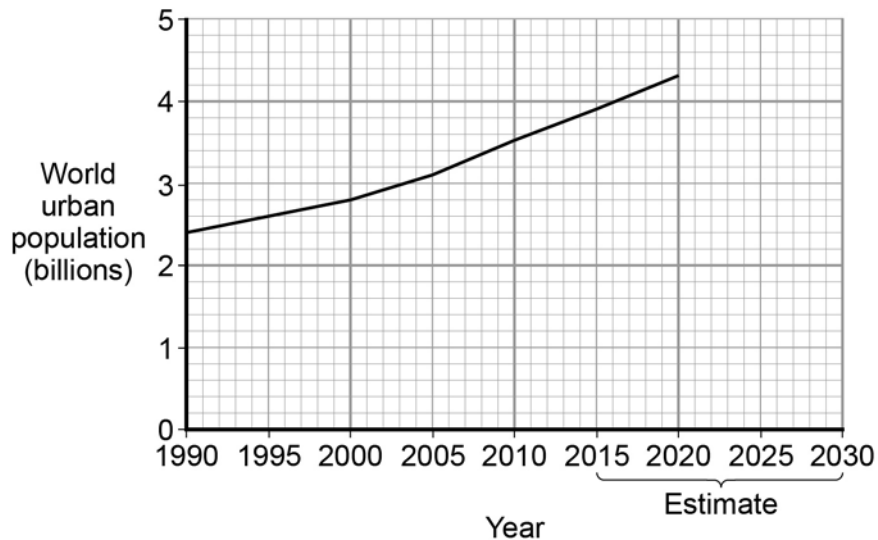
In 1930, only one person in four lived in a town or city. By 2006, as many people lived in urban areas as in rural areas. By 2030, it is estimated that three out of every four people will live in an urban area.

In 1950, New York was the only city with more than 10 million people. Today there are at least 25 cities with 10 million people or more, mostly in LICs and NEEs where the urban population is growing rapidly. In these continents the urban population is expected to double by 2030.

Top five megacities, 2010 (at least 10 million people)

1	Tokyo	35 million
2	Mexico City	19 million
3	Mumbai	19 million
4	New York	18 million
5	São Paulo	18 million

(Figures are approximate)



0 1 . **1** Complete the graph in **Figure 1**. Use the information below.

**Estimated world urban population: 2025 = 4.8 billion
2030 = 5.0 billion**

[2 marks]

0 1 . **2** How many people lived in urban areas in 2000?

[1 mark]

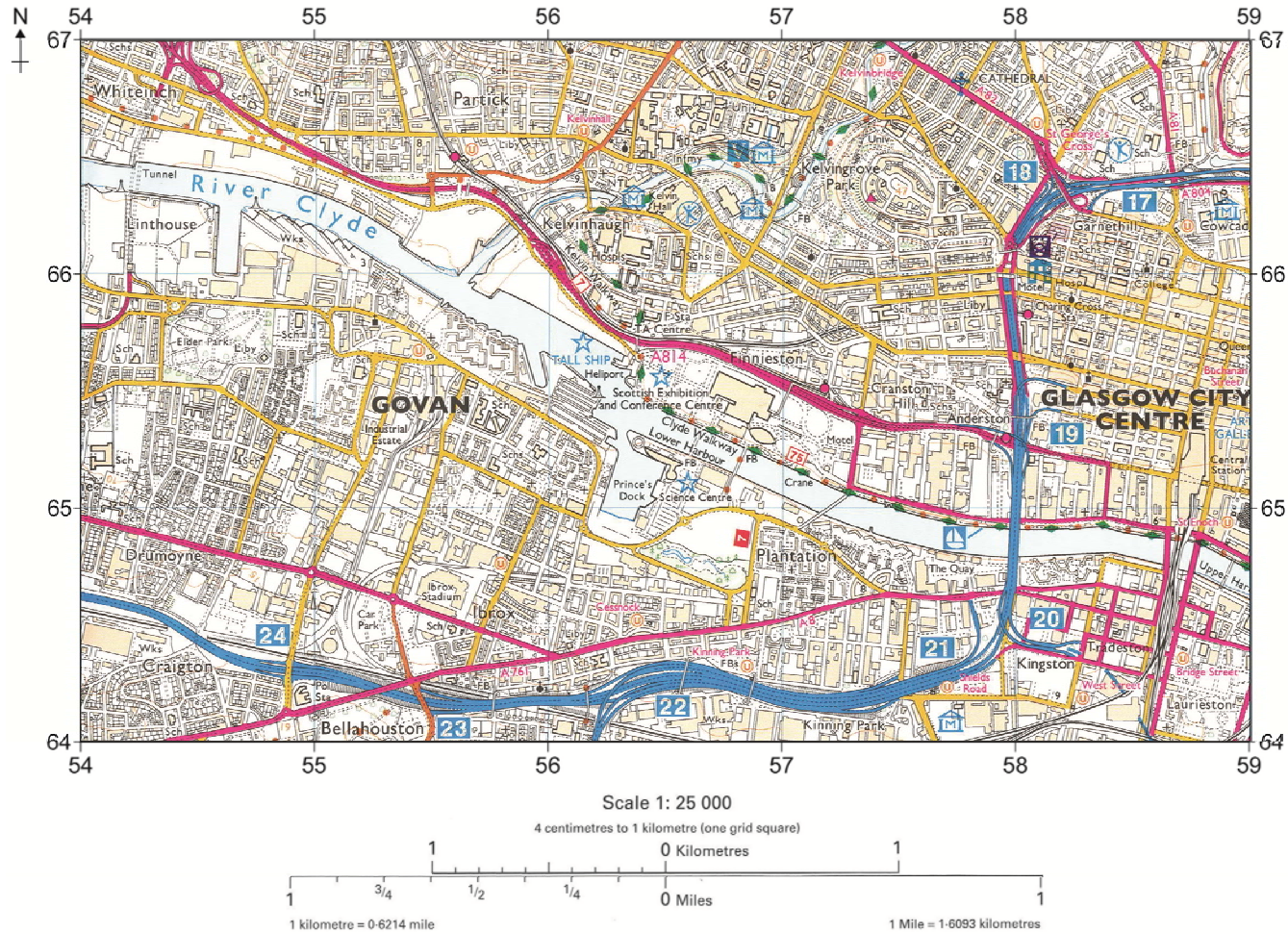
0 1 . **3** Suggest why an increasing number of megacities are located in lower income countries (LICs) or newly emerging economies (NEEs).

[2 marks]

Question 1 continues on the next page

Study **Figure 2**, an Ordnance Survey map extract showing part of the city of Glasgow.

Figure 2



0 1 . **4** Give the four-figure grid reference for the Scottish Exhibition and Conference Centre on the north bank of the River Clyde.

[1 mark]

0 1 . **5** What is the straight line distance, to the nearest km, from Ibrox Stadium (5564) to Kelvin Hall (5666)? Shade **one** circle only.

A 2 km

B 3 km

C 4 km

D 5 km

E 6 km

[1 mark]

0 1 . **6** Using map evidence, suggest how an express bus service on the A814 (north bank of the River Clyde) would reduce traffic congestion in Glasgow city centre.

[2 marks]

- 0 1** . **7** Study **Figure 3**, which describes part of the Central Govan Action Plan, a project to improve conditions in the Govan area of Glasgow. This area is shown on the Ordnance Survey map extract in **Figure 2**.

Figure 3

The **Central Govan Action Plan** is part of the River Clyde Waterfront Urban Regeneration Project.

The **Central Govan Action Plan** will include:

- the development of two new hospitals which will serve the whole of Glasgow
- 500 new homes and improvements to run-down housing areas
- restoration of historical buildings and the development of a riverside museum
- improved shopping and recreation facilities
- the clearing of derelict industrial areas.

Using **Figure 3** and your own knowledge, explain how urban regeneration projects can reduce levels of urban deprivation.

[6 marks]

Question 1 continues on the next page

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ANSWER IN THE SPACES PROVIDED**

0 1 . 8 Study **Figure 4**, showing information about a 'Sustainable Urban Living' project.

Figure 4

Sustainable Urban Living – The Greenhouse Development – Leeds

Greenhouse is part of an urban regeneration scheme, located a 10-minute walk from Leeds city centre and close to the main railway station. It was the first carbon-zero, mixed-use development in the UK that produces more energy than it uses. It has 172 eco-homes, all set around communal landscaped grounds.



The Greenhouse development includes:

- renewable energy generation methods
- cycle links to the city centre and railway station
- a car sharing scheme
- recycling facilities
- local shops and cafés
- a medical centre and nursery
- parks with children's playgrounds
- a sports centre, with a swimming pool
- allotments where people can grow fruit and vegetables.

Using **Figure 4** and your own knowledge, discuss how the features of the Greenhouse development will make for more sustainable urban living.

[6 marks]

Question 1 continues on the next page

0 1

. **9**

Evaluate the effectiveness of an urban planning strategy in helping to improve the quality of life for the urban poor.

Use an example of a city in a lower income country (LIC) or newly emerging economy (NEE).

[9 marks]
[+ 3 SPaG marks]

End of Section A

Turn over for Section B

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ANSWER IN THE SPACES PROVIDED**

Section B The changing economic world

Answer **all** questions in this section.

Question 2 The changing economic world

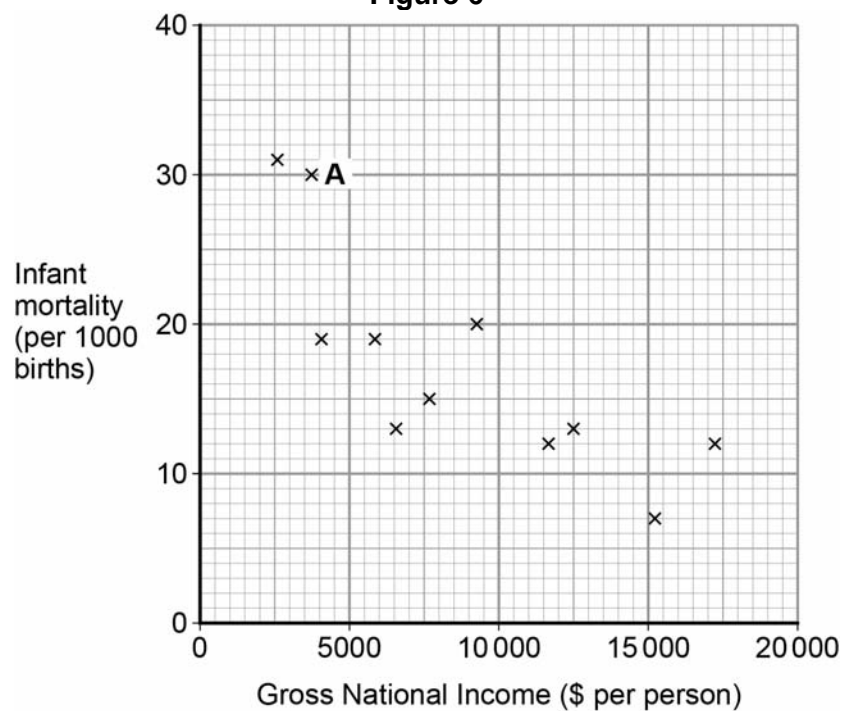
Study **Figure 5**, a table showing Gross National Income (GNI \$) and Infant Mortality for a number of South American countries.

Figure 5

Country	Gross National Income 2013 (\$ per person)	Infant Mortality 2013 (per 1000 births)
Argentina	17 250	12
Brazil	11 690	12
Bolivia	2 550	31
Colombia	7 590	15
Chile	15 230	7
Ecuador	5 760	19
Guyana	3 750	30
Paraguay	4 010	19
Peru	6 270	13
Suriname	9 370	20
Uruguay	15 180	10
Venezuela	12 550	13

Study **Figure 6**, a scattergraph showing the information in **Figure 5**.

Figure 6



0 2 . **1** Name the country at point **A** on the scattergraph.

[1 mark]

0 2 . **2** Complete the scattergraph by plotting the data for Uruguay.

GNI: 15 180

Infant mortality: 10

[1 mark]

0 2 . **3** Draw a line of best fit (trend line) on the scattergraph to show the relationship between GNI and infant mortality.

[1 mark]

0 2 . **4** Suggest **one** reason for the relationship between GNI and infant mortality shown on the scattergraph.

[2 marks]

0 2 . **5** Using the data in **Figure 5**, calculate the average infant mortality rate for the twelve countries shown.

Show your working in the space below.

[2 marks]

Question 2 continues on the next page

0 2 . **6** Suggest **two** ways that the level of economic development of a country might affect the quality of life of its people.

[4 marks]

1:

2:

Study **Figure 7**, pie charts showing information about the changing industrial structure of the United Kingdom.



0 2 . **7** Describe the changes to the industrial structure shown in **Figure 7**.

[2 marks]

0 2 . **8** Suggest reasons for the changes shown in **Figure 7**.

[4 marks]

Question 2 continues on the next page

0 2 . 9 Study **Figure 8**, a photograph showing a modern industrial development.

Figure 8



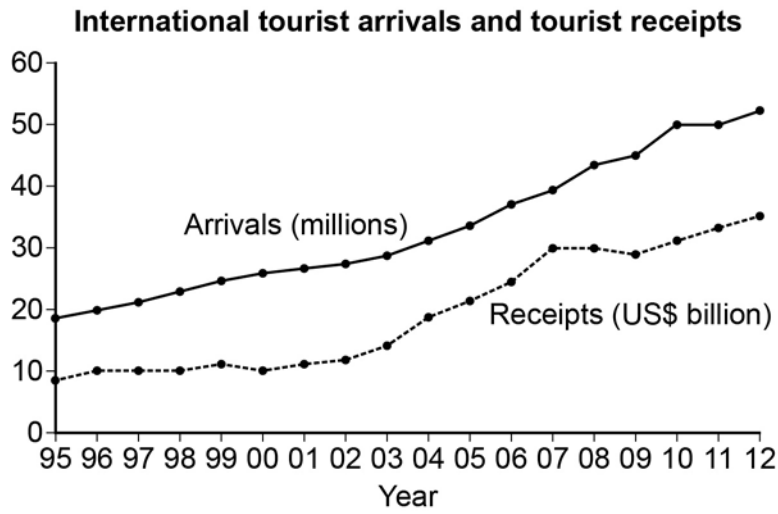
Using **Figure 8** to help you, explain how modern industrial developments can be made more environmentally sustainable.

[4 marks]

Question 2 continues on the next page

0 2 . 10 Study **Figure 9**, showing information about tourism in Africa.

Figure 8



Tourist safari in Botswana

Botswana in Africa has large areas of unspoilt wilderness. Safari tourism is becoming an important source of income, both locally and nationally.



Views about tourism in Botswana, a newly emerging economy (NEE) in Africa

Tourism is one of the fastest growing parts of the economy.

Tourism helps other industries to develop.

Tourism brings money in for local communities.

Tourism helps to develop the infrastructure of the country.

Tourism will be good for the country as long as it is sustainable.

Evaluate the effectiveness of tourism in reducing the development gap.

Use **Figure 9** and your own knowledge.

[9 marks]

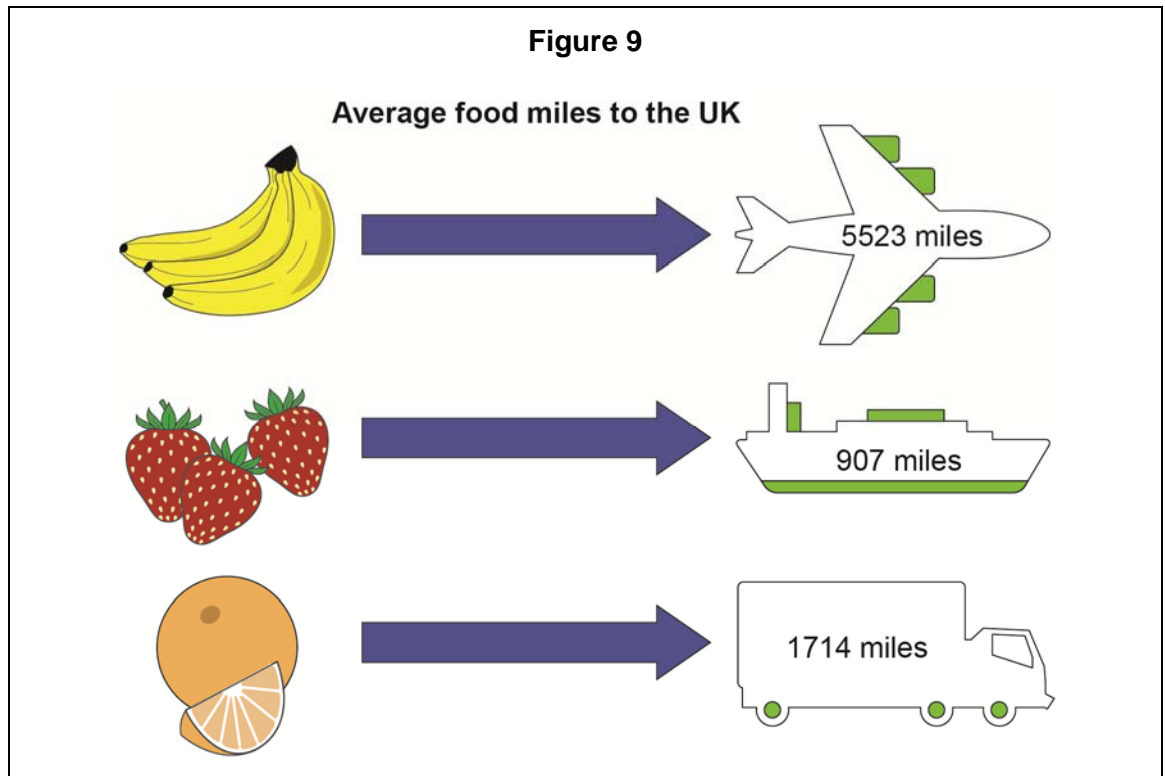
End of Section B

Section C The challenge of resource management

Answer Question 3 and **either** Question 4 **or** Question 5 **or** Question 6.

Question 3 The challenge of resource management

Study **Figure 10**, a diagram showing the average number of food miles travelled for three products in the UK.



0 3 . **1** By approximately how many times is the average food miles for bananas greater than that for strawberries? Shade **one** circle only.

A 4

B 5

C 6

D 7

[1 mark]

0 3 . **2** How does increasing food miles lead to a larger carbon footprint?

[2 marks]

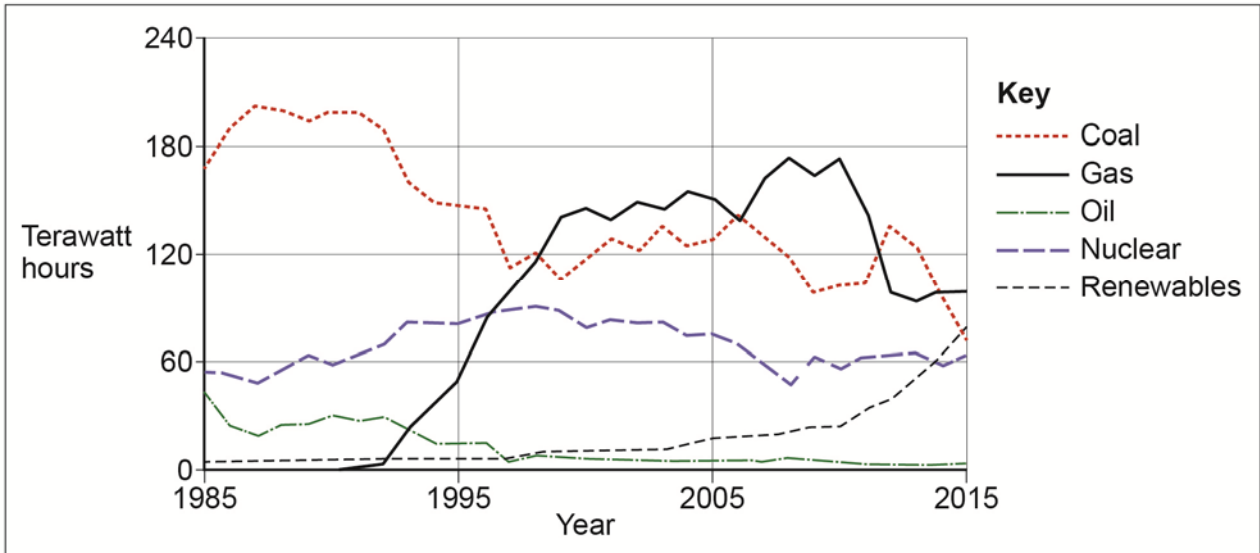
0 3 . **3** To what extent is it preferable to source food locally in the UK rather than import from abroad?

[6 marks]

Question 3 continues on the next page

Study **Figure 11**, a graph showing sources used to generate electricity in the UK (1985–2015).

Figure 11



0 3 . 4 Use **Figure 11** to complete the paragraph below.

Choose the correct answers from this list.

[3 marks]

- | | | |
|------------------------|-------------|-------------|
| fluctuated | coal | 1992 |
| remained steady | oil | 1989 |

The supply of electricity..... between 1985 and 2015.

In 1985 was the main source used to generate electricity, supplying over 60%. By 2015 gas had become the number one source used to generate electricity, the rapid increase in the use of gas having started in

0 3 . 5 Give **two** reasons why the use of coal decreased between 1985–2015.

[2 marks]

Turn over for the next question

Answer **either** Question 4 **or** Question 5 **or** Question 6.

Shade the circle below to indicate which optional question you will answer.

Question **0 4**

Question **0 5**

Question **0 6**

CORRECT METHOD

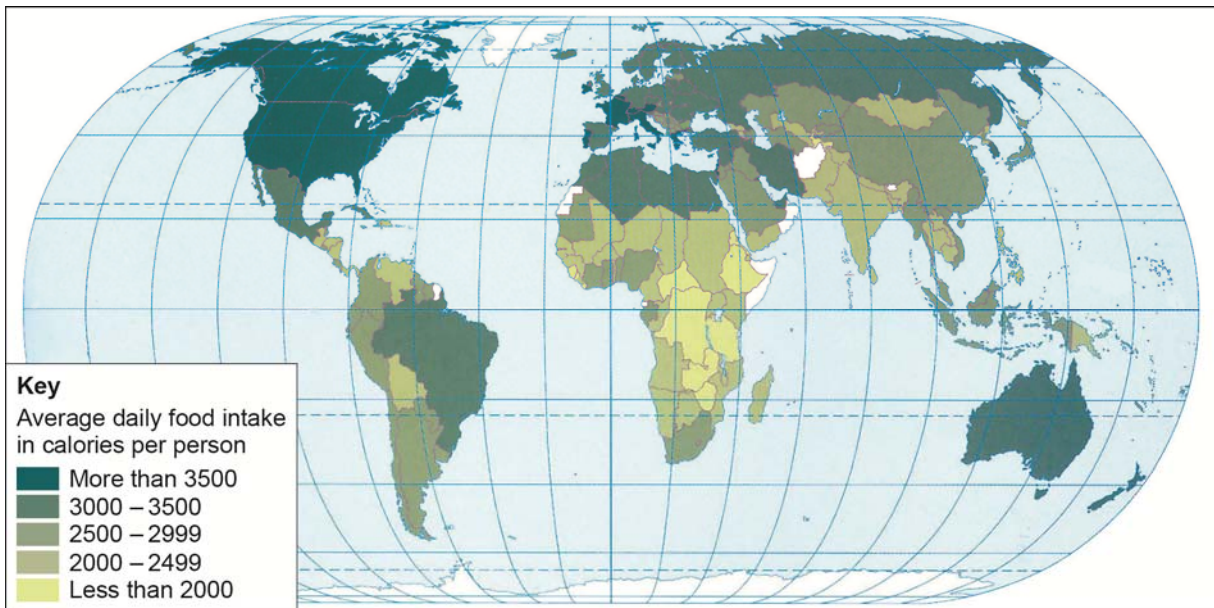
WRONG METHODS



Question 4 Food

Study **Figure 12**, a world map showing global food consumption.

Figure 12



0 4 . **1** Which continent has the lowest food consumption?

Shade **one** circle only.

A Africa

B Asia

C Europe

D North America

[1 mark]

0 4 .

2

Describe the distribution of countries that consume more than 3500 calories per person each day.

[2 marks]

0 4 .

3

Suggest **one** way in which food insecurity might affect the quality of life of people.

[2 marks]

0 4 .

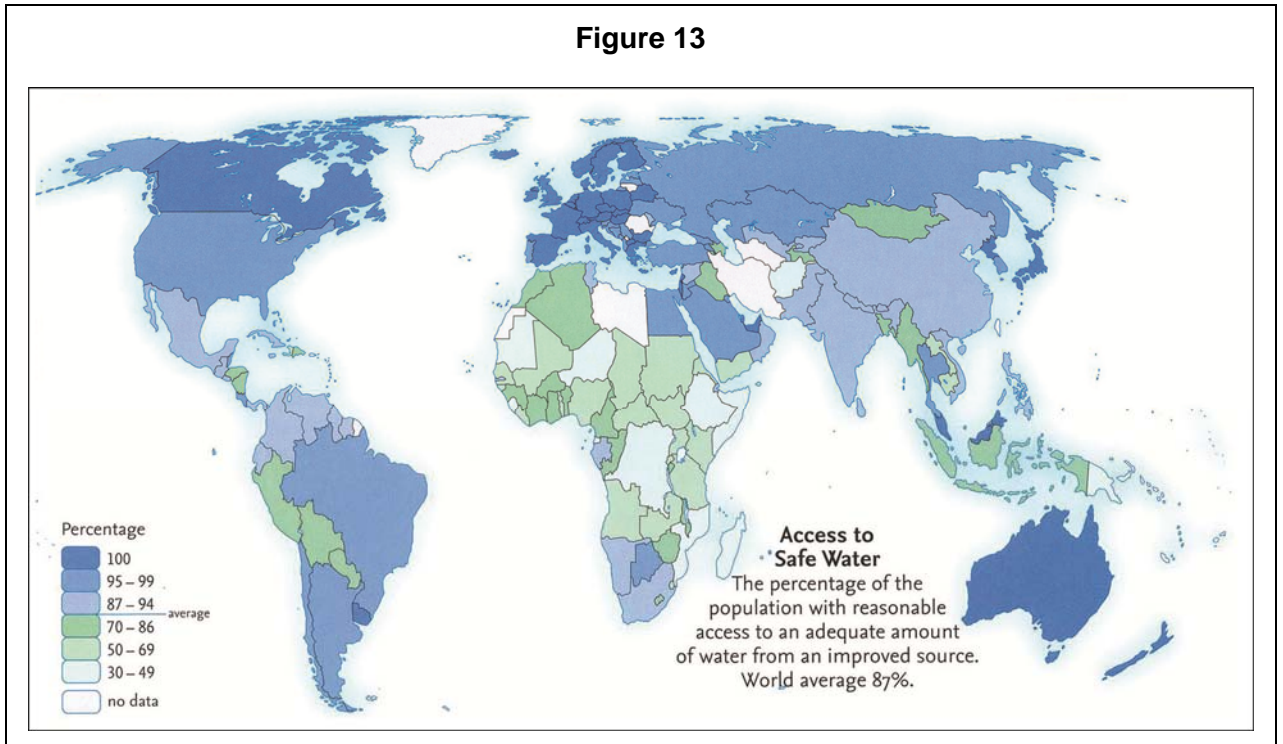
4

Examine the advantages and disadvantages of a large scale agricultural development that you have studied.

[6 marks]

Question 5 Water

Study **Figure 13**, a world map showing global access to safe water.



0 5 . 1 Which continent has the lowest access to safe water?

Shade **one** circle only.

A Africa

B Asia

C Europe

D North America

[1 mark]

0 5 . 2 Describe the distribution of countries with 100% access to safe water.

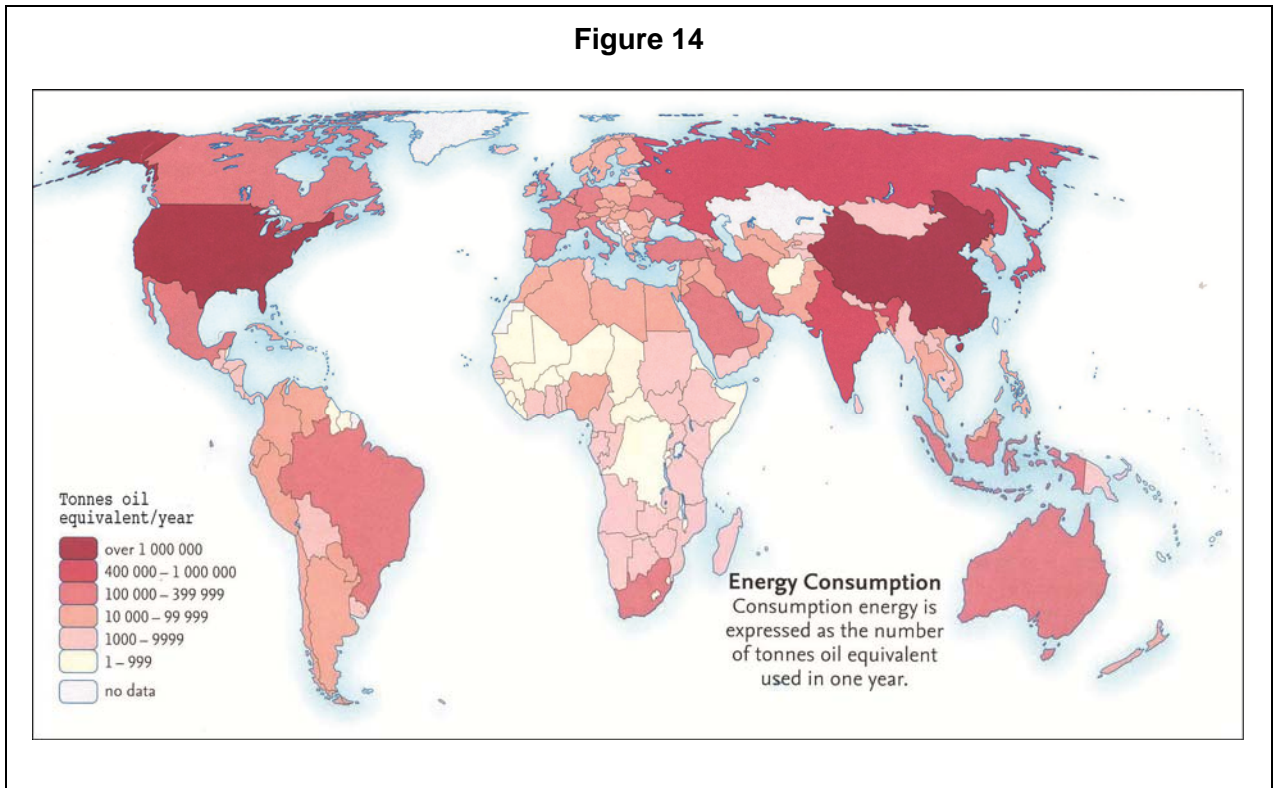
[2 marks]

0 5 . **3** Suggest **one** way in which water insecurity might affect the quality of life of people. **[2 marks]**

0 5 . **4** Examine the advantages and disadvantages of a large scale water transfer scheme that you have studied. **[6 marks]**

Question 6 Energy

Study **Figure 14**, a world map showing global energy consumption.



0 6 . 1 Which continent has the lowest energy consumption?

Shade **one** circle only.

- A** Africa
- B** Asia
- C** Europe
- D** North America

[1 mark]

0 6 . 2 Describe the distribution of countries that consume over 400 000 tonnes of oil equivalent/year.

[2 marks]

0 6 . **3** Suggest **one** way in which energy insecurity might affect the quality of life of people.

[2 marks]

0 6 . **4** Using an example you have studied, examine how the extraction of a fossil fuel creates both advantages and disadvantages.

[6 marks]

END OF QUESTIONS

There are no questions printed on this page

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