

Please write clearly in block capitals.

Centre number

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Candidate number

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Surname

Forename(s)

Candidate signature

I declare this is my own work.

GCSE GEOGRAPHY

Paper 2 Challenges in the Human Environment

Time allowed: 1 hour 15 minutes

Materials

For this paper you must have:

- a pencil
- a rubber
- a ruler.

You may use a calculator.

Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.

Answer **all** questions in Section A.

Answer **either** Section B **or** Section C.

If you choose Section B answer **all** questions.

If you choose Section C answer **Question 3** and **either** Question 4 **or** Question 5 **or** Question 6.

- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- If you need additional extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- 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 63.
- Spelling, punctuation, grammar and specialist terminology will be assessed in Question **01.10**.
- HIC is a higher income country.
- LIC is a lower income country.
- NEE is a newly emerging economy.

For Examiner's Use	
Question	Mark
1	
2	
3	
4	
5	
6	
TOTAL	





For the multiple-choice questions, shade the circle next to the correct answer.

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. 

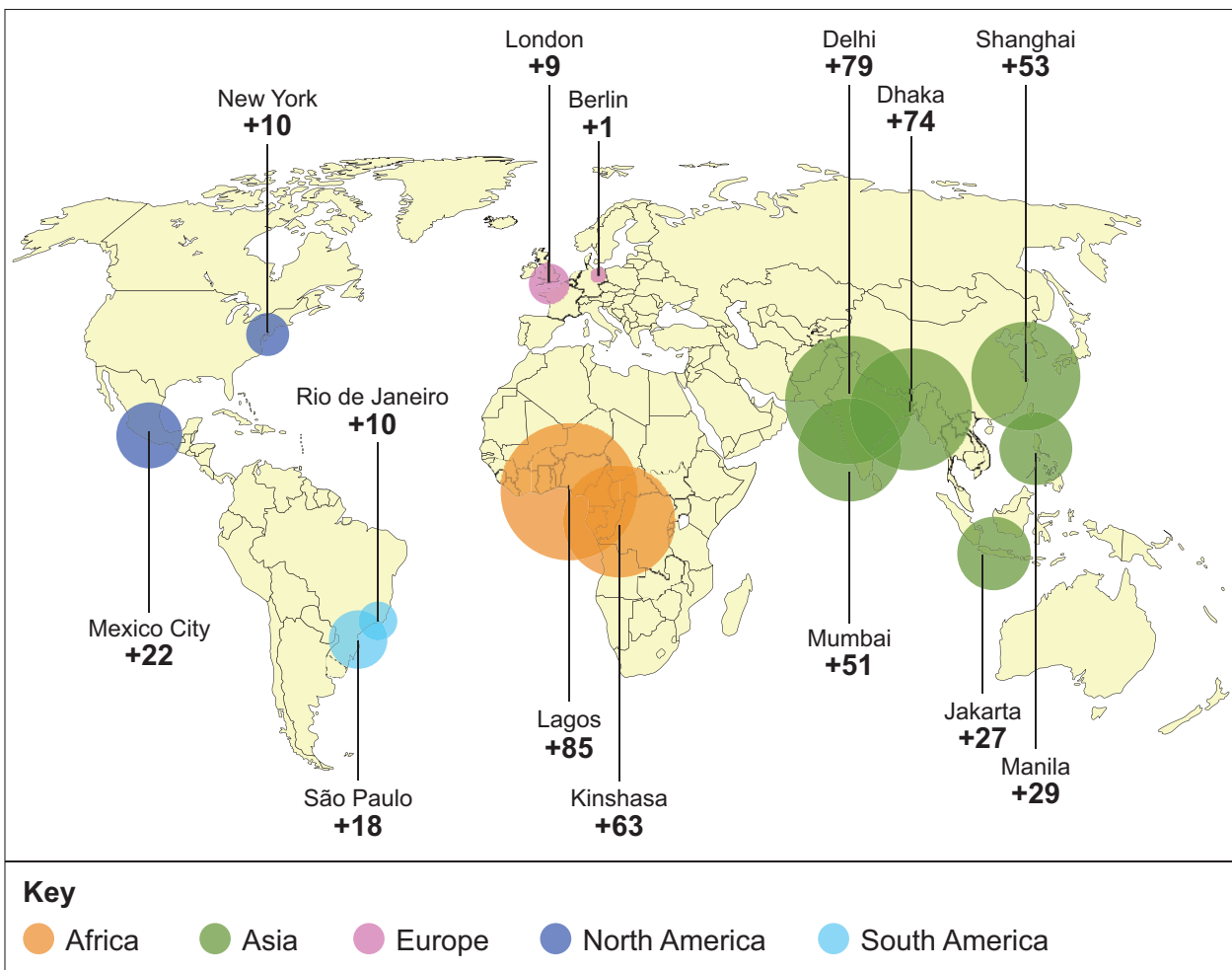
Section A Urban issues and challenges

Answer **all** questions in this section.

Question 1 Urban issues and challenges

Study **Figure 1**, a world map showing the rate of growth for some major cities, measured in people per hour.

Figure 1



0 1 . 1

Calculate the mean rate of growth per hour for the Asian cities shown in **Figure 1**.

Answer to the nearest whole number.

[2 marks]

Show your working

Answer = _____ people per hour

0 1 . 2

Outline **one** reason for the slower rates of growth in HIC cities.

[2 marks]

0 1 . 3

Give **one** way in which a major city in an LIC/NEE is regionally important.

[1 mark]

Name of city _____

Regional importance _____

Question 1 continues on the next page

Turn over ►



Figure 2

The study's author said, "Our study shows that many people are investing in their homes, but there is also an urgent need for governments to help improve infrastructure."

[6 marks]

[illegible]

Extra space _____

Study **Figure 3**, a photograph and factfile about transport improvements in Utrecht, a city in the Netherlands.

Figure 3



From Bus Stops to Bee Stops

- 316 bus stops have green roofs covered in plants
- All have LED lighting and 96 have solar panels
- The base of the shelter is made of recycled concrete

0 1 . 5

Suggest how developments such as this can help urban areas to become more sustainable.

Use **Figure 3** and your own understanding.

[4 marks]

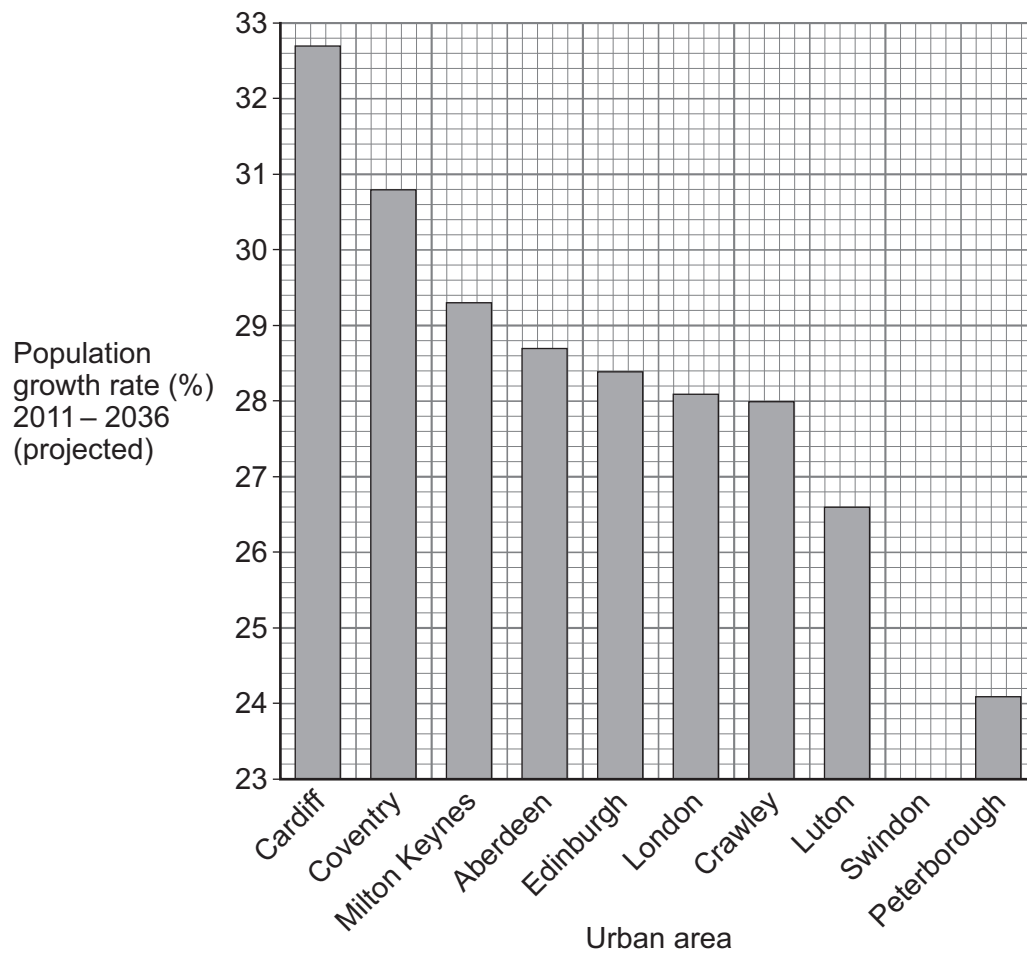
Turn over ►



Extra space _____

Study **Figure 4**, a graph showing the 10 UK urban areas with the highest population growth rate (%), 2011–2036 (projected).

Figure 4



0 1 . 6

Complete **Figure 4** using the following data.

[1 mark]

City	Population growth rate (%) 2011–2036 (projected)
Swindon	26.5

0 1 . 7

Calculate the range of population growth rate (%), 2011–2036 (projected) for the urban areas shown in **Figure 4**.Shade **one** circle only.

[1 mark]

A 8.0%

☐

B 8.3%

☐

C 8.6%

☐

D 8.9%

☐

Question 1 continues on the next page

Turn over ►



Study **Figure 5**, a map showing the 10 highest and 10 lowest UK urban areas for population growth rate (%), 2011–2036 (projected).

Figure 5



0 1 . 8

Compare the distribution of the 10 highest and 10 lowest urban areas shown in **Figure 5**.

[2 marks]

0 1 . 9

Outline how international migration has affected a UK city you have studied.

[2 marks]

Name of UK city _____

Question 1 continues on the next page

Turn over ►

Assess the challenges created by urban change in a UK city you have studied.

[9 marks]

[+ 3 SPaG marks]

Name of UK city _____

[illegible]

Extra space _____



33

End of Section A
Turn over for Section B

Turn over ►

Answer **either** Section B **or** Section C.

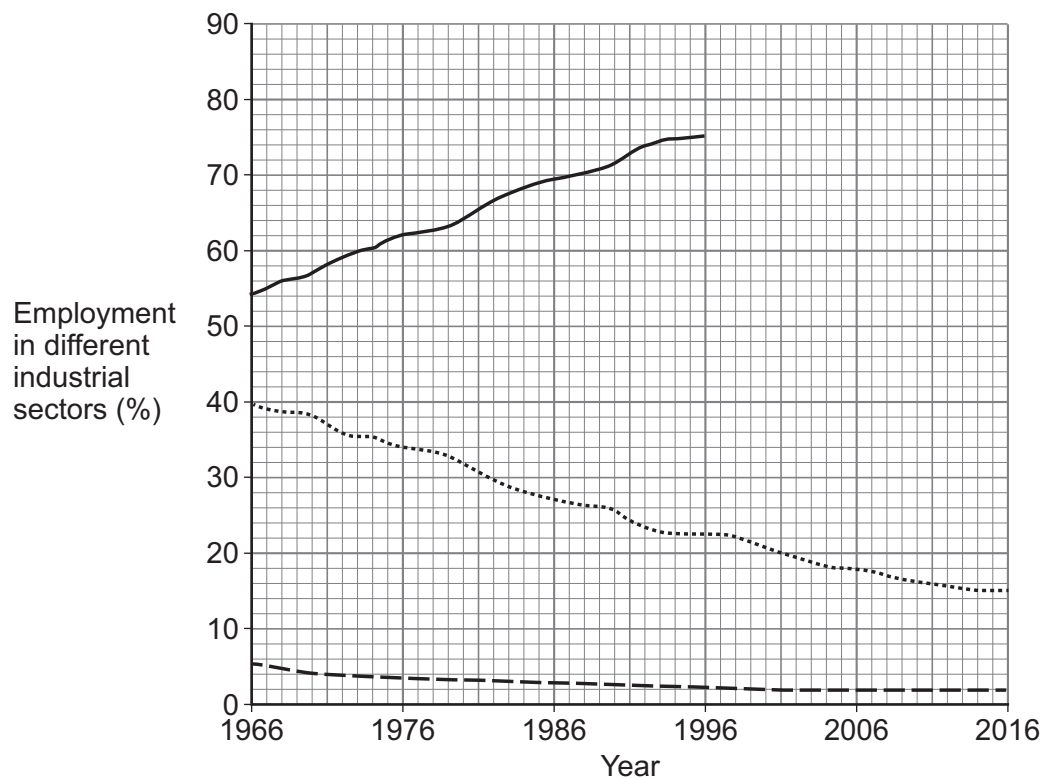
Section B The changing economic world

If you choose Section B answer **all** questions in this section.

Question 2 The changing economic world

Study **Figure 6**, a graph showing the percentage of employment in different industrial sectors in the UK.

Figure 6



0 2 . 1

Complete **Figure 6** using the following data.

[2 marks]

Year	% employment in service industry
2006	81
2016	84



0 2 . 2

Calculate the difference between employment (%) in primary industry and secondary industry in 2016.

Shade **one** circle only.

[1 mark]

A 13%

☐

B 17%

☐

C 69%

☐

D 82%

☐

0 2 . 3

Which **one** of the following describes the change in employment in secondary industry from 1966 to 2016?

Shade **one** circle only.

[1 mark]

A It halves

☐

B It more than halves

☐

C It stays the same

☐

D It doubles

☐

0 2 . 4

Outline **one or more** reasons for the decline of traditional industries in the UK.

[3 marks]

Question 2 continues on the next page

Turn over ►



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outside the
box

Study **Figure 7**, showing newspaper headlines.

Figure 7

Does leaving the EU mean taking back control of our money, laws and borders?

Can the Commonwealth provide the trading future for the UK?

0	2	.	5
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Suggest how changing economic and political links may affect the UK's place in the wider world.

Use **Figure 7** and your own understanding.

[6 marks]

[illegible]

Extra space _____



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Question 2 continues on the next page

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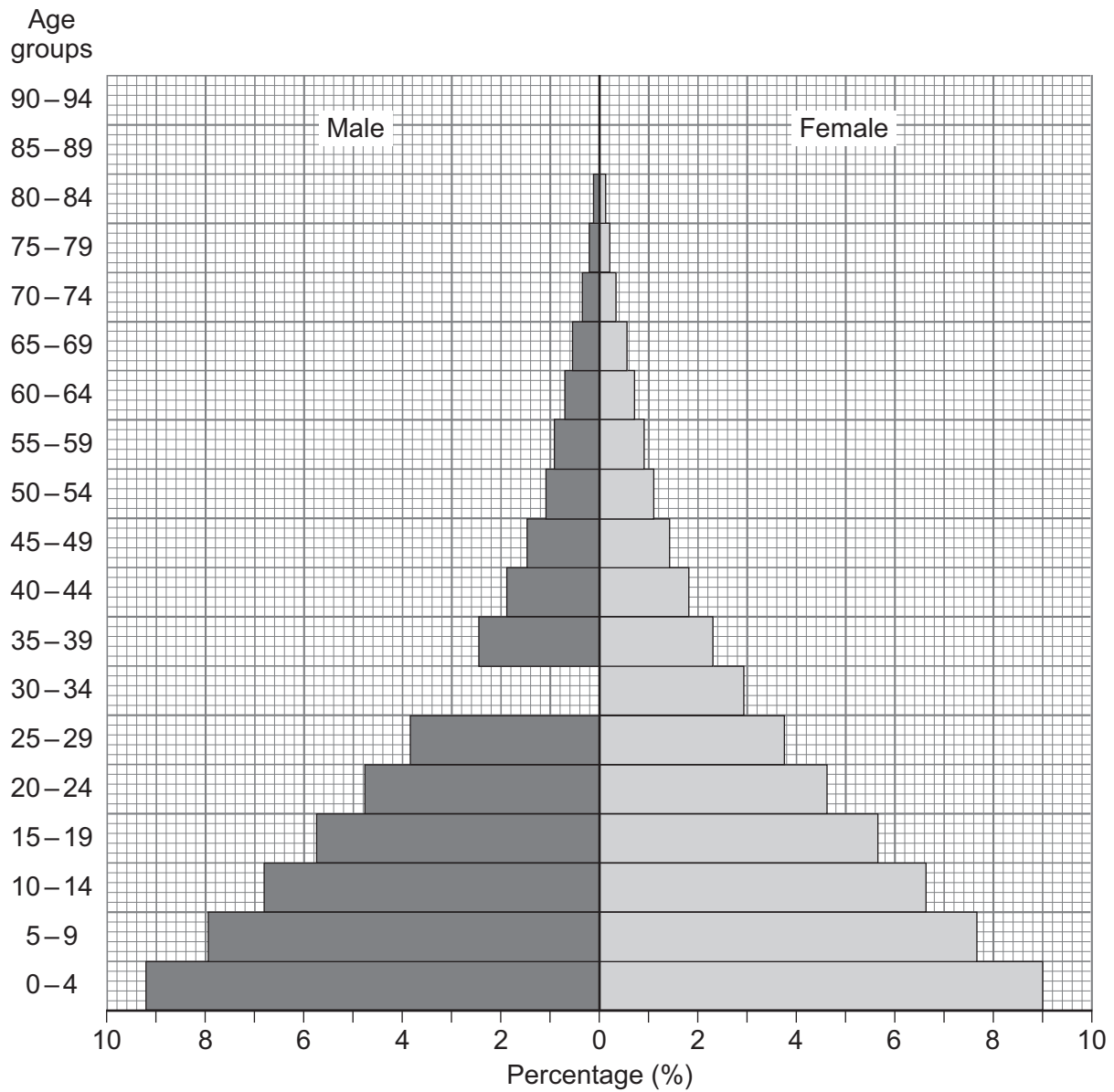
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ANSWER IN THE SPACES PROVIDED**

Turn over ►



Study **Figure 8**, a population pyramid for Chad (2019).

Figure 8



0 2 . 6

Complete **Figure 8** using the following data.

[1 mark]

Males aged 30–34	3%
------------------	----



0 2 . 7Using **Figure 8**, calculate the percentage (%) of children aged 0–4 years old.Shade **one** circle only.**[1 mark]****A** 9.0%☐**B** 9.2%☐**C** 15.6%☐**D** 18.2%☐**0 2 . 8**

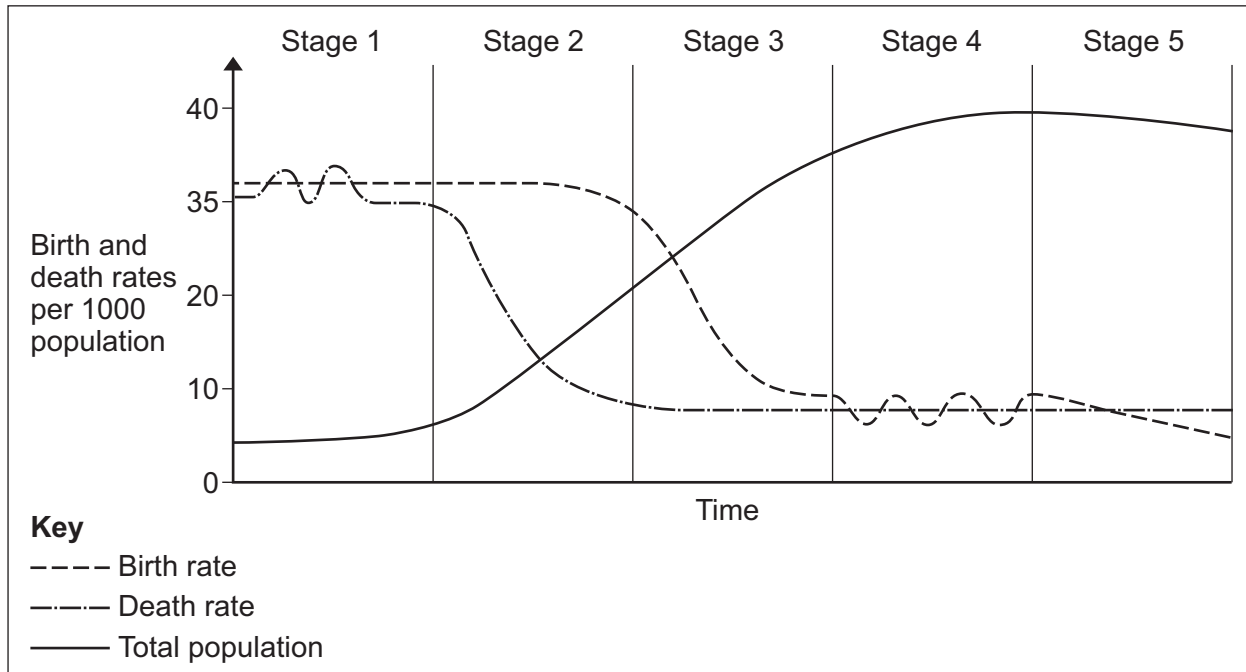
What is meant by infant mortality rate?

[2 marks]

Question 2 continues on the next page**Turn over ►**

Study **Figure 9**, the Demographic Transition Model.

Figure 9



0 2 . 9

Using **Figure 9**, suggest how population change in Stage 3 may have economic benefits.

[3 marks]



0	2	.	1	0
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Describe **one or more** impacts that international aid has had on a named LIC/NEE country.

[4 marks]

Name of country _____

Extra space _____

Question 2 continues on the next page

Turn over ►



'Transnational corporations (TNCs) bring more disadvantages than advantages to a host country.'

Explain your answer.

Name of LIC/NEE _____

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Extra space _____

30



Turn over for Section C

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ANSWER IN THE SPACES PROVIDED**

Turn over ►



If you have answered Section B, **do not** answer Section C.

Section C The challenge of resource management

If you choose Section C, answer **Question 3** and **either** Question 4 (Food) **or** Question 5 (Water) **or** Question 6 (Energy).

Question 3 The challenge of resource management

Study **Figure 10**, a world map showing a measure of well-being for women in 2019.

Figure 10

Figure 10 not reproduced here due to third-party copyright restrictions

0 3 . 1

Which of the following continents has the largest number of countries with a score of 0–0.57?

Shade **one** circle only.

[1 mark]

A Africa

☐

B Asia

☐

C Europe

☐

D South America

☐


0 3 . 2

Suggest how poor water supply may affect social well-being.

[3 marks]

0 3 . 3

Explain how changing demand for food has affected the UK's carbon footprint.

[4 marks]

Extra space _____

Question 3 continues on the next page**Turn over ►**

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Study **Figure 11**, some headlines about changing demand for water in the UK.

Figure 11

UK dishwasher ownership increased from 22% in 1998 to 49% in 2018

Increasing trend for UK houses to have more than 1 bathroom

UK population increasingly concentrated in the South

0	3	.	4
---	---	---	---

Discuss the challenges of the changing demand for water in the UK.

Use **Figure 11** and your own understanding.

[6 marks]

[illegible]

Extra space _____



End of Question 3

Turn over for the next question

Turn over ►

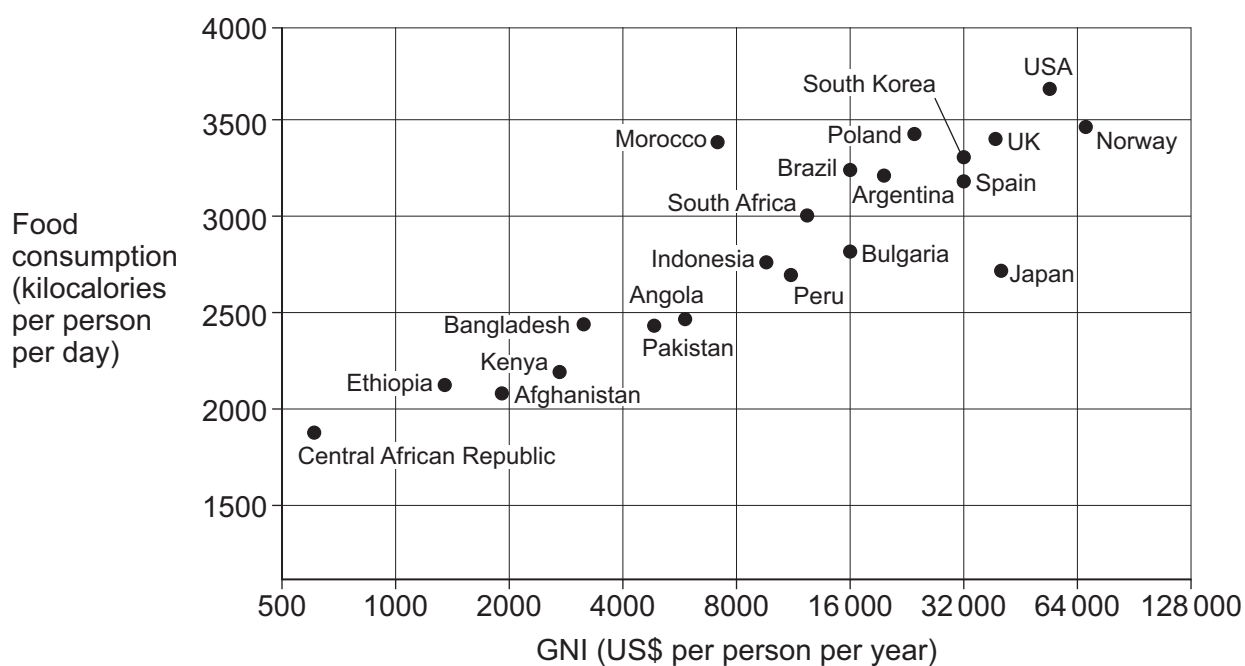


Answer **either** Question 4 (Food) **or** Question 5 (Water) **or** Question 6 (Energy).

Question 4 Food

Study **Figure 12**, a graph showing GNI per person and food consumption per person for selected countries.

Figure 12



0 4 . 1

Plot the following data on to **Figure 12**.

[1 mark]

Country	GNI (US\$ per person per year)	Food consumption (kilocalories per person per day)
Botswana	16 000	2300



0 4 . 2

Which country is identified by the following data?

[1 mark]

GNI (US\$ per person per year)	Food consumption (kilocalories per person per day)
32 000	3200

0 4 . 3

Draw a best fit line on **Figure 12**.

[1 mark]

0 4 . 4

Describe the relationship between GNI and food consumption shown in **Figure 12**.

[2 marks]

0 4 . 5

Outline **one or more** reasons for the link between GNI and food consumption.

[3 marks]

Question 4 continues on the next page

Turn over ►



0	4	.	6
---	---	---	---

Give **two** impacts of food insecurity.**[2 marks]**

1 _____

2 _____

0	4	.	7
---	---	---	---

Suggest how food supplies have been made more sustainable.

Use an example of a local scheme in an LIC/NEE.

[6 marks]

Name of local scheme _____

Extra space _____



End of Question 4

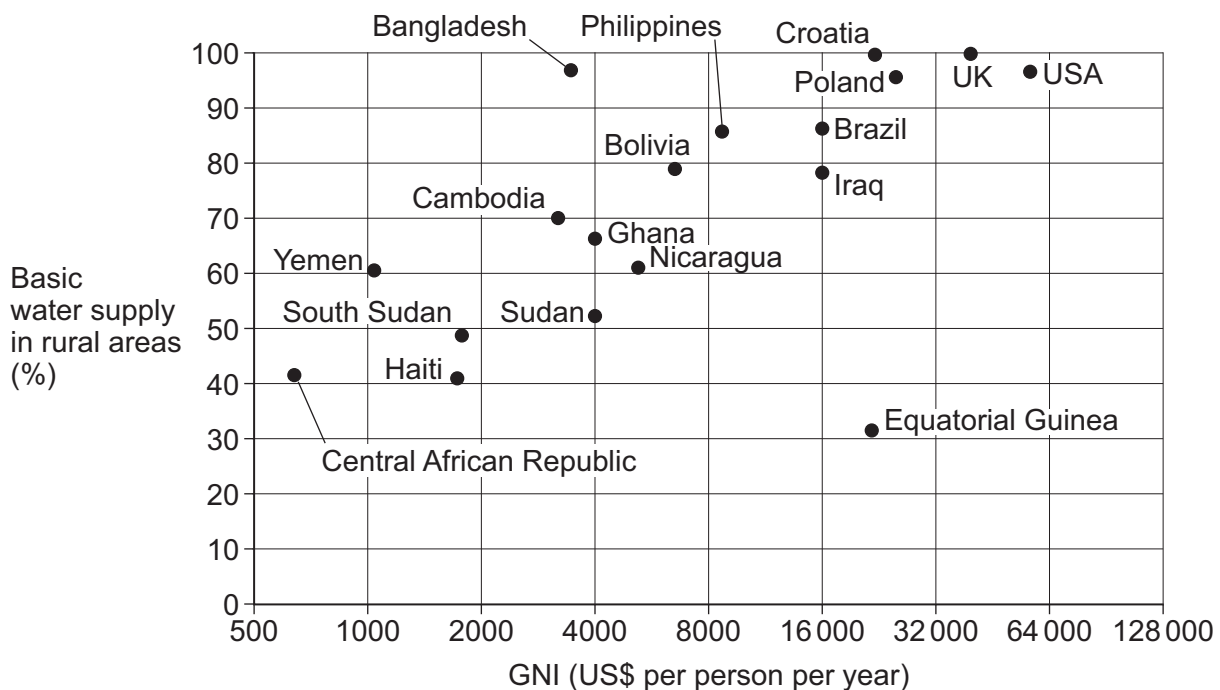
If you have answered Question 4, do not answer Question 5 or 6

Turn over ►



Question 5 Water

Study **Figure 13**, a graph showing GNI per person and the percentage of rural areas with a basic water supply for selected countries.

Figure 13

Basic water supply = access to water within 30 minutes

0 5 . 1

Plot the following data on to **Figure 13**.

[1 mark]

Country	GNI (US\$ per person per year)	Basic water supply in rural areas (%)
Botswana	16 000	58

0 5 . 2

Which country is identified by the following data?

[1 mark]

GNI (US\$ per person per year)	Basic water supply in rural areas (%)
4000	52



0 5 . 3

Draw a best fit line on **Figure 13**.

[1 mark]

0 5 . 4

Describe the relationship between GNI and access to a basic water supply shown in **Figure 13**.

[2 marks]

0 5 . 5

Outline **one or more** reasons for the link between GNI and water supply.

[3 marks]

0 5 . 6

Give **two** impacts of water insecurity

[2 marks]

1

2

Question 5 continues on the next page

Turn over ►



Use an example of a local scheme in an LIC/NEE.

Name of local scheme _____

[illegible]

Extra space _____

End of Question 5



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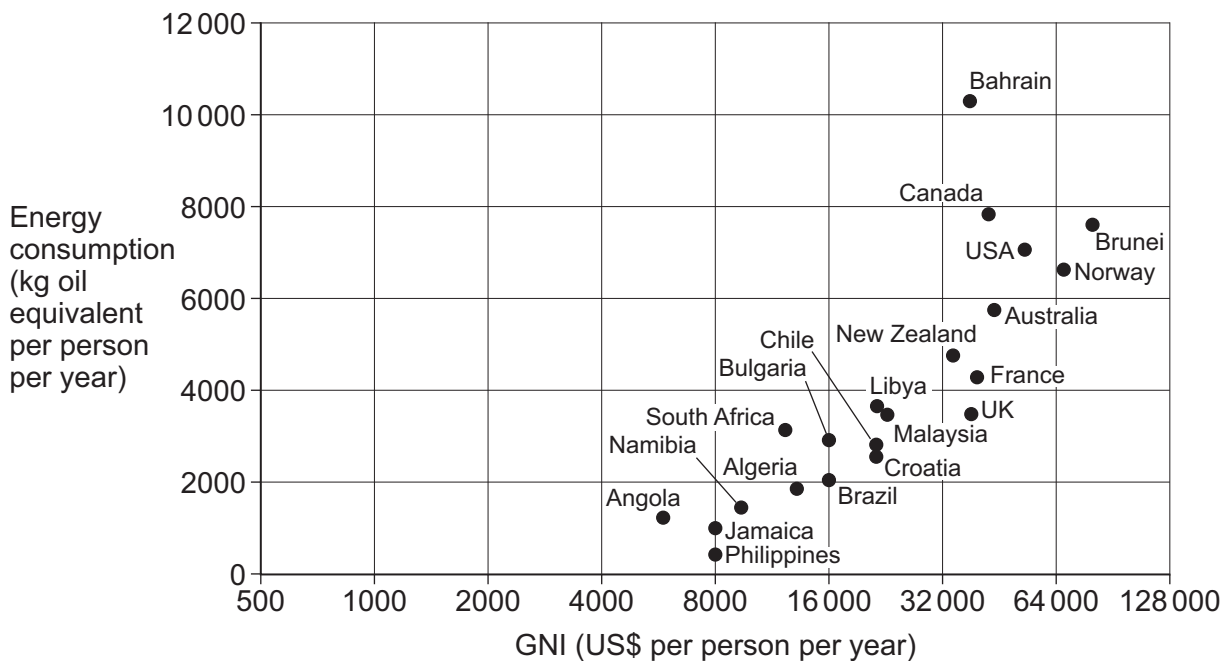
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ANSWER IN THE SPACES PROVIDED**

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Question 6 Energy

Study **Figure 14**, a graph showing GNI per person and energy consumption for selected countries

Figure 14**0 6 . 1**Plot the following data on to **Figure 14**.**[1 mark]**

Country	GNI (US\$ per person per year)	Energy consumption (kg oil equivalent per person per year)
Botswana	16 000	1200

0 6 . 2

Which country is identified by the following data?

[1 mark]

GNI (US\$ per person per year)	Energy consumption (kg oil equivalent per person per year)
8000	450



0 6 . 3

Draw a best fit line on **Figure 14**.

[1 mark]

0 6 . 4

Describe the relationship between GNI and energy consumption shown in **Figure 14**.

[2 marks]

0 6 . 5

Outline **one or more** reasons for the link between GNI and energy consumption.

[3 marks]

0 6 . 6

Give **two** impacts of energy insecurity.

[2 marks]

1

2

Question 6 continues on the next page

Turn over ►



0 6 . 7

Suggest how energy supplies have been made more sustainable.

Use an example of a local renewable energy scheme in an LIC/NEE.

[6 marks]

Name of local scheme _____

Extra space _____

16

If you have answered Question 6, do not answer Question 4 or 5**END OF QUESTIONS**

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[illegible]

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