

Paper Reference 4GE1/02
Pearson Edexcel
International GCSE (9–1)

Total Marks

Geography
PAPER 2: Human geography

Time: 1 hour 45 minutes plus your additional time allowance.

In the boxes below, write your name, centre number and candidate number.

Surname					
Other names					
Centre Number					
Candidate Number					

YOU MUST HAVE

Calculator

YOU WILL BE GIVEN

Resource Book

Diagram Book

INSTRUCTIONS

In Section A, answer TWO questions from Questions 1, 2 AND 3.

In Section B, answer ONE question from Questions 4, 5 AND 6.

In Section C, answer ONE question from Questions 7, 8 AND 9.

Answer the questions in the spaces provided in this Question Paper or in the Diagram Book – there may be more space than you need.

Calculators may be used

Where asked you must show all your working out with your answer clearly identified at the end of your solution.

Turn over

INFORMATION

The total mark for this paper is 97

**The marks for EACH question are shown in brackets
– use this as a guide as to how much time to spend on
each question.**

There may be spare copies of some diagrams.

ADVICE

**Read each question carefully before you start to
answer it.**

Check your answers if you have time at the end.

Good luck with your examination.

SECTION A

Answer TWO questions from this section.

Some questions are multiple choice. Write the letter(s) of your chosen answer(s) in the box(es) provided.

Indicate which question you are answering by marking a cross in the box. If you change your mind, put a line through the box and then indicate your new question with a cross.

If you answer Question 1 put a cross in this box

☐

1. Economic activity and energy

(a) (i) Define the term energy security.

(1 mark)

(continued on the next page)

1. (a) continued.

(ii) Identify the TWO forms of non–renewable energy.

A Coal

B Hydroelectric

C Geothermal

D Oil

E Solar

F Wind

Answers

(2 marks)

(continued on the next page)

Turn over

1. continued.

(b) Study Figure 1a in the Resource Book.

Suggest ONE way this house has been adapted to manage energy consumption.

(2 marks)

(c) (i) State ONE characteristic of the tertiary economic sector.

(1 mark)

(continued on the next page)

Turn over

1. (c) continued.

(ii) Explain TWO factors that affect the location of tertiary sector activities.

(4 marks)

1 _____

2 _____

(continued on the next page)

Turn over

1. continued.

(d) Study Figure 1b in the Diagram Book. It shows employment structures for selected countries in 1991 and 2018.

(i) Identify which pie chart displays the largest percentage for secondary sector employment.

A Brazil 1991

B India 1991

C United Kingdom 2018

D India 2018

Answer

(1 mark)

(continued on the next page)

Turn over

1. (d) continued.

(ii) Identify which ONE of the following is correct.

- A** Brazil's employment in the tertiary/quaternary sectors has increased by 12 percentage points.
- B** India's employment in tertiary/quaternary sectors has increased by 12 percentage points.
- C** The UK's employment in the primary sector has decreased by 12 percentage points.
- D** India's employment in the primary sector has decreased by 12 percentage points.

Answer

(1 mark)

(continued on the next page)

Turn over

1. (d) continued.

(iii) State ONE reason for decline in primary sector employment.

(1 mark)

(continued on the next page)

1. continued.

(e) For a named megacity explain TWO advantages of informal employment.

(4 marks)

Named megacity_____

1 _____

2 _____

(continued on the next page)

Turn over

1. continued.

(f) Study Figure 1c in the Resource Book.

Analyse the possible reasons why energy consumption has grown.

(8 marks)

Answer lines continue on the next two pages.

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Turn over

1. (f) continued.

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1. (f) continued.

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(Total for Question 1 = 25 marks)

If you answer Question 2 put a cross in this box

☐

2. Rural environments

- (a) (i) Define the term **organic farming**.
(1 mark)

(continued on the next page)

2. (a) continued.

(ii) Identify TWO forms of farm diversification.

A Buying more land.

B Buying more tractors.

C Creating a farm shop.

D Increasing irrigation.

E Using more fertiliser.

**F Opening a bed and breakfast for
tourists.**

Answers

(2 marks)

(continued on the next page)

Turn over

2. continued.

(b) Study Figure 2a in the Resource Book.

Suggest ONE way this dairy farm has diversified its income.

(2 marks)

(c) (i) State ONE factor leading to rural isolation.

(1 mark)

(continued on the next page)

Turn over

2. (c) continued.

(ii) Explain TWO ways tourist pressure is affecting rural areas.

(4 marks)

1 _____

2 _____

(continued on the next page)

Turn over

2. continued.

(d) Study Figure 2b in the Diagram Book.

(i) Identify the year with the largest urban population.

A 1985

B 1995

C 2005

D 2017

Answer

(1 mark)

(continued on the next page)

Turn over

2. (d) continued.

(ii) Identify the year in which the urban population first becomes larger than the rural population.

A 1985

B 1995

C 2005

D 2017

Answer

(1 mark)

(iii) State ONE factor leading to rural–urban migration.

(1 mark)

(continued on the next page)

Turn over

2. continued.

**(e) For a named developing or emerging country
explain TWO environmental challenges facing
rural areas.**

(4 marks)

Answer lines continue on the next page.

Named developing or emerging country

1 _____

2. (e) continued.

2 _____

(continued on the next page)

2. continued.

(f) Study Figure 2c in the Resource Book.

**Analyse the importance of natural ecosystems
for providing goods and services.**

(8 marks)

Answer lines continue on the next two pages.

2. (f) continued.

[illegible]

Turn over

2. (f) continued.

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(Total for Question 2 = 25 marks)

If you answer Question 3 put a cross in this box

☐

3. Urban environments

- (a) (i) Define the term counter-urbanisation.
(1 mark)**

(continued on the next page)

3. (a) continued.

(ii) Identify TWO environmental problems associated with rapid urban growth.

A Air pollution

B Lack of housing

C Overcrowding

D Poor services

E Ethnic segregation

F Water contamination

Answers

(2 marks)

(continued on the next page)

Turn over

3. continued.

(b) Study Figure 3a in the Resource Book.

(i) Suggest ONE reason why this area is likely to be part of a central urban area.

(2 marks)

(continued on the next page)

Turn over

3. (b) continued.

(ii) Identify the meaning of the term
rural–urban fringe.

A The area where factory developments
dominate the landscape.

B The area where farming activities
dominate the landscape.

C The land around the city centre.

D The land at the edge of an urban area
where the rural area begins.

Answer

(1 mark)

(continued on the next page)

Turn over

3. continued.

- (c) For urban environments in developed countries, explain how transport and housing strategies could improve quality of life.
(4 marks)

Transport

Housing

(continued on the next page)

Turn over

3. continued.

(d) Study Figure 3b in the Diagram Book.

(i) Identify which city was a megacity in 2018.

A Chengdu

B Lahore

C St Petersburg

D Tehran

Answer

(1 mark)

(continued on the next page)

Turn over

3. (d) continued.

(ii) Identify the city, from selected cities below, that has experienced the greatest growth between **2000** and **2018**.

A Chengdu

B Lisbon

C St Petersburg

D Toronto

Answer

(1 mark)

(iii) State **ONE** factor that affects the emergence of megacities.

(1 mark)

(continued on the next page)

Turn over

3. continued.

- (e) For an urban area in a named developing or emerging country explain how TWO different groups of people manage social challenges.
(4 marks)**

Answer lines continue on the next page.

Named developing or emerging country

Group 1

Turn over

3. (e) continued.

Group 2

(continued on the next page)

Turn over

3. continued.

(f) Study Figure 3c in the Resource Book.

**Analyse the reasons why there are varied
patterns of urban growth.**

(8 marks)

Answer lines continue on the next two pages.

3. (f) continued.

[illegible]

Turn over

3. (f) continued.

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(Total for Question 3 = 25 marks)

TOTAL FOR SECTION A = 50 MARKS

Turn over

SECTION B**Geographical enquiry**

Answer ONE question from this section.

Some questions are multiple choice. Write the letter(s) of your chosen answer(s) in the box(es) provided.

Indicate which question you are answering by marking a cross in the box. If you change your mind, put a line through the box and then indicate your new question with a cross.

If you answer Question 4 put a cross in this box

☐

4. Investigating economic activity and energy

(a) Study Figure 4a in the Resource Book.

(i) State ONE piece of secondary data that would be useful to investigate the impacts of this on the environment.

(1 mark)

(ii) Explain why photographs are a useful source of primary data.

(2 marks)

(continued on the next page)

Turn over

4. continued.

(b) Study Figure 4c in the Diagram Book. It shows data from an environmental quality survey carried out in five sites around a new renewable energy power plant.

(i) Plot the data for sites 1 and 2 (from Figure 4b in the Resource Book) to complete the graph in the Diagram Book (Figure 4c).

Some data has been plotted for you.

(2 marks)

(continued on the next page)

4. (b) continued.

(ii) Identify the type of graph shown in Figure 4c.

A Bar

B Line

C Pie

D Scatter

Answer

(1 mark)

(iii) Identify the site in Figure 4c that has the highest environmental quality score.

(1 mark)

(continued on the next page)

Turn over

4. (b) continued.

(iv) Calculate the range in environmental quality scores.

Show all your workings.

(2 marks)

(continued on the next page)

4. continued.

(c) Explain ONE way you could manage a risk during fieldwork in an area close to a renewable energy power plant.

(3 marks)

(Total for Question 4 = 12 marks)

If you answer Question 5 put a cross in this box

☐

5. Investigating rural environments

(a) Study Figure 5a in the Resource Book.

(i) State ONE piece of secondary data that would be useful to investigate this rural environment.

(1 mark)

(ii) Explain why photographs are a useful source of primary data.

(2 marks)

(continued on the next page)

Turn over

5. continued.

(b) Study Figure 5c in the Diagram Book. It shows data from an environmental quality survey carried out in five sites around a new factory development.

(i) Plot the data for sites 1 and 2 (from Figure 5b in the Resource Book) to complete the graph in the Diagram Book (Figure 5c).

Some data has been plotted for you.

(2 marks)

(continued on the next page)

5. (b) continued.

(ii) Identify the type of graph shown in Figure 5c.

A Bar

B Line

C Pie

D Scatter

Answer

(1 mark)

(iii) Identify the site in Figure 5c that has the highest environmental quality score.

(1 mark)

(continued on the next page)

Turn over

5. (b) continued.

(iv) Calculate the range in environmental quality scores.

Show all your workings.

(2 marks)

(continued on the next page)

5. continued.

(c) Explain ONE way you could manage a risk during fieldwork in a rural area with a new development.

(3 marks)

(Total for Question 5 = 12 marks)

If you answer Question 6 put a cross in this box

☐

6. Investigating urban environments

(a) Study Figure 6a in the Resource Book.

(i) State ONE piece of secondary data that would be useful to investigate this urban environment.

(1 mark)

(ii) Explain why photographs are a useful source of primary data.

(2 marks)

(continued on the next page)

Turn over

6. continued.

(b) Study Figure 6c in the Diagram Book. It shows data from an environmental quality survey carried out in five sites around an urban area being regenerated.

(i) Plot the data for sites 1 and 2 (from Figure 6b in the Resource Book) to complete the graph in the Diagram Book (Figure 6c).

Some data has been plotted for you.

(2 marks)

(continued on the next page)

6. (b) continued.

(ii) Identify the type of graph shown in Figure 6c.

A Bar

B Line

C Pie

D Scatter

Answer

(1 mark)

(iii) Identify the site in Figure 6c that has the highest environmental quality score.

(1 mark)

(continued on the next page)

Turn over

6. (b) continued.

(iv) Calculate the range in environmental quality scores.

Show all your workings.

(2 marks)

(continued on the next page)

6. continued.

- (c) Explain ONE way you could manage a risk during fieldwork in a regenerated urban area. (3 marks)**

(Total for Question 6 = 12 marks)

TOTAL FOR SECTION B = 12 MARKS

Turn over

SECTION C**Global issues**

Answer ONE question from this section.

Some questions are multiple choice. Write the letter(s) of your chosen answer(s) in the box(es) provided.

Indicate which question you are answering by marking a cross in the box. If you change your mind, put a line through the box and then indicate your new question with a cross.

If you answer Question 7 put a cross in this box

☐

7. Fragile environments and climate change

- (a) (i) Identify the meaning of the term **Milankovitch cycles**.

- A** Variations in ocean circulation movements.
- B** Variations in the length of time it takes for the earth to orbit the sun.
- C** Variations in the movement of air in the atmosphere.
- D** Variations in the tilt and/or orbit of the earth around the sun.

Answer

(1 mark)

(continued on the next page)

Turn over

7. (a) continued.

(ii) Explain what is meant by the term
drought.

(2 marks)

(continued on the next page)

7. (a) continued.

(iii) Identify ONE source leading to a significant increase of methane (CH_4) in the atmosphere.

A Burning wood as fuel.

B Decaying organic matter.

C Use of artificial fertilisers.

D Use of aerosols.

Answer

(1 mark)

(continued on the next page)

Turn over

7. continued.

(b) Study Figure 7a in the Resource Book.

(i) Identify which month had the highest average rainfall in 1991–2016.

(1 mark)

(ii) Compare the temperature profile for 1901–1931 with the temperature profile for 1991–2016.

(2 marks)

(continued on the next page)

Turn over

7. (b) continued.

(iii) Identify ONE human cause of climate change.

(2 marks)

(continued on the next page)

7. (b) continued.

(iv) Suggest ONE reason why the data in Figure 7a could create an inaccurate interpretation of global climate change trends.

(2 marks)

(continued on the next page)

7. continued.

(c) State TWO impacts of deforestation.

(2 marks)

1 _____

2 _____

(continued on the next page)

Turn over

7. continued.

(d) Explain TWO different approaches to managing deforestation in a named developing or emerging country.

(4 marks)

Named developing or emerging country

1 _____

2 _____

(continued on the next page)

Turn over

7. continued.

(e) Study Figure 7b in the Resource Book.

Assess the reasons for the global variation in the vulnerability to desertification.

(6 marks)

Answer lines continue on the next page.

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Turn over

7. (e) continued.

(continued on the next page)

Turn over

7. continued.

(f) Discuss the view:

‘Deforestation represents the most significant threat to fragile environments.’

Use Figures 7b and 7c in the Resource Book, and your own knowledge and understanding to support your answer.

(12 marks)

Answer lines continue on the next three pages.

7. (f) continued.

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Turn over

7. (f) continued.

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Turn over

7. (f) continued.

(Total for Question 7 = 35 marks)

If you answer Question 8 put a cross in this box

☐

8. Globalisation and migration

(a) (i) Identify the meaning of the term TNC.

A Translocal Corporation

B Transnational Corporation

C Transnational Country

D Transporting National Corporation

Answer

(1 mark)

(continued on the next page)

Turn over

8. (a) continued.

(ii) Explain what is meant by the term
forced migration.

(2 marks)

(continued on the next page)

8. (a) continued.

(iii) Identify ONE push factor for rural–urban migration.

A Poor employment opportunities.

B Desire for large amounts of space.

C Low air pollution.

D Low land prices

Answer

(1 mark)

(b) Study Figure 8a in the Resource Book.

**(i) Identify which region had the highest percentage (%) of internet users in 2010.
(1 mark)**

(continued on the next page)

Turn over

8. (b) continued.

(ii) Compare the percentage (%) of internet users in Africa and the Americas.

(2 marks)

(iii) Identify ONE advantage of increased access to the internet.

(2 marks)

(continued on the next page)

Turn over

8. (b) continued.

(iv) Suggest ONE reason why the data in
Figure 8a might be a poor indicator of a
growing global economy.
(2 marks)

(continued on the next page)

8. continued.

(c) State TWO pull factors for economic migration.
(2 marks)

1 _____

2 _____

(continued on the next page)

Turn over

8. continued.

(d) Explain TWO different approaches to making tourism sustainable, ONE in a developed country and ONE in a developing or emerging country.

(4 marks)

Developed country

Developing/Emerging country

(continued on the next page)

Turn over

8. continued.

(e) Study Figure 8b in the Resource Book.

Assess the impacts of global international migration on host countries.

(6 marks)

Answer lines continue on the next page.

[illegible]

Turn over

8. (e) continued.

(continued on the next page)

Turn over

8. continued.

(f) Discuss the view:

‘The rise in the global economy has been as a result of increases in access to technology.’

Use Figures 8a and 8c in the Resource Book, and your own knowledge and understanding to support your answer.

(12 marks)

Answer lines continue on the next three pages.

8. (f) continued.

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Turn over

8. (f) continued.

[illegible]

Turn over

8. (f) continued.

(Total for Question 8 = 35 marks)

If you answer Question 9 put a cross in this box

☐

9. Development and human welfare

(a) (i) Identify the main characteristic of top down development.

- A Usually involves decisions at the local level.**
- B Usually involves government decisions.**
- C Usually involves small amounts of funding.**
- D Usually involves the ideas of local people.**

Answer

(1 mark)

(continued on the next page)

Turn over

9. (a) continued.

(ii) Explain what is meant by the term
international aid.

(2 marks)

(continued on the next page)

Turn over

9. (a) continued.

(iii) Identify ONE type of project that could be created by a non-governmental organisation (NGO).

- A** Large investments in high speed rail network.
- B** Facilitating increases in trade between two national governments.
- C** Improving water supplies in an informal settlement.
- D** Large investments in national agricultural development.

Answer

(1 mark)

(continued on the next page)

Turn over

9. continued.

(b) Study Figure 9a in the Resource Book.

(i) Identify the age group with the largest population in 2015.

(1 mark)

(ii) Compare the population structures of the United Kingdom in 1980 and 2015.

(2 marks)

(continued on the next page)

Turn over

9. (b) continued.

(iii) Identify ONE reason for the changes in
population structure between **1980** and
2015.

(2 marks)

(continued on the next page)

9. (b) continued.

(iv) Suggest ONE reason population structure
can be an indicator of the level of
development.

(2 marks)

(continued on the next page)

9. continued.

(c) State TWO reasons why development can be uneven within a country.

(2 marks)

1 _____

2 _____

(continued on the next page)

9. continued.

(d) Explain ONE advantage and ONE disadvantage of a bottom–up development project in a named developing or emerging country.

(4 marks)

Answer lines continue on the next page.

Named developing or emerging country

Advantage

9. (d) continued.

Disadvantage

(continued on the next page)

Turn over

9. continued.

(e) Study Figure 9b in the Resource Book.

Assess the importance of food security on the global pattern of human welfare.

(6 marks)

Answer lines continue on the next page.

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Turn over

9. (e) continued.

(continued on the next page)

9. continued.

(f) Discuss the view:

‘Demographic characteristics are the most important factors that can affect economic development.’

Use Figures 9a and 9c in the Resource Book, and your own knowledge and understanding to support your answer.

(12 marks)

Answer lines continue on the next three pages.

Turn over

9. (f) continued.

[illegible]

Turn over

9. (f) continued.

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Turn over

9. (f) continued.

(Total for Question 9 = 35 marks)

TOTAL FOR SECTION C = 35 MARKS

TOTAL FOR PAPER = 97 MARKS

END OF PAPER
