

Paper Reference 4GE1/01
Pearson Edexcel
International GCSE (9–1)

Total Marks

Geography
PAPER 1: Physical geography

Time: 1 hour 10 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

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.

Answer the questions in the spaces provided in this Question Paper – 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.

INFORMATION

The total mark for this paper is 62.

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

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. River environments

(a) (i) Identify ONE store in the hydrological cycle.

A Evaporation

B Infiltration

C Lake

D Throughflow

Answer

(1 mark)

(continued on the next page)

1. (a) continued.

(ii) Identify the statement that best defines transpiration in the hydrological cycle.

- A** Transfer of water from the atmosphere to land.
- B** Plants take up water from the soil and release it into the atmosphere as water vapour.
- C** Water moving through the soil as a result of gravity.
- D** Water vapour cooling in the atmosphere to become liquid.

Answer

(1 mark)

(continued on the next page)

1. continued.

(b) (i) State ONE physical factor that influences deposition in a river.

(1 mark)

(ii) Explain how abrasion erodes the river channel.

(2 marks)

(continued on the next page)

1. continued.

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

**Suggest TWO reasons for the different
storm hydrograph shapes.**

(4 marks)

1 _____

2 _____

(continued on the next page)

Turn over

1. continued.

(d) Explain ONE way agriculture can affect water quality.

(3 marks)

(continued on the next page)

1. continued.

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

Identify the feature labelled **X**.

(1 mark)

(continued on the next page)

1. continued.

(f) Explain the formation of a waterfall.

(4 marks)

(continued on the next page)

1. continued.

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

Analyse the factors that can affect river
flood risk.

(8 marks)

Answer lines continue on the next two pages.

1. (g) continued.

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Turn over

1. (g) continued.

[illegible]

(Total for Question 1 = 25 marks)

Turn over

If you answer Question 2 put a cross in this box

☐

2. Coastal environments

(a) Identify the best definition of **mechanical weathering**.

- A** Where rocks are broken down by physical factors in the environment.
- B** Where rocks are eroded by activities of plants and animals.
- C** Where rocks are protected from physical processes on a coastline.
- D** Where the chemical composition of the rocks is changed.

Answer

(1 mark)

(continued on the next page)

2. continued.

(b) (i) Identify an **abiotic** factor that affects coastal ecosystems.

A Animals

B Climate

C Plants

D Fungi

Answer

(1 mark)

(continued on the next page)

2. (b) continued.

(ii) Identify ONE feature of coral reef ecosystems.

(1 mark)

(iii) Explain ONE factor that controls the distribution of coral reef ecosystems.

(2 marks)

(continued on the next page)

2. continued.

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

Suggest TWO marine processes forming these coastal landforms.

(4 marks)

1 _____

2 _____

(continued on the next page)

Turn over

2. continued.

(d) Explain ONE way industry can threaten coastal ecosystems.

(3 marks)

(continued on the next page)

2. continued.

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

Identify the feature labelled X.

(1 mark)

(continued on the next page)

2. continued.

(f) Explain how prevention strategies can reduce the impact of coastal flooding.

(4 marks)

(continued on the next page)

2. continued.

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

Analyse the different viewpoints affecting the decisions on coastal management strategies.

(8 marks)

Answer lines continue on the next two pages.

2. (g) continued.

[illegible]

Turn over

2. (g) continued.

(Total for Question 2 = 25 marks)

If you answer Question 3 put a cross in this box

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3. Hazardous environments

(a) Identify which of the following can be used to record earthquakes.

A Flow meter

B Hygrometer

C Richter scale

D Seismograph

Answer

(1 mark)

(continued on the next page)

3. continued.

(b) (i) Identify a method of measuring tropical cyclones.

A Bradshaw scale

B Pressure scale

C Saffir–Simpson scale

D Wind speed scale

Answer

(1 mark)

(continued on the next page)

3. (b) continued.

(ii) State ONE factor that influences the development of tropical cyclones.

(1 mark)

(iii) Explain ONE physical impact of a tropical cyclone hazard.

(2 marks)

(continued on the next page)

3. continued.

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

Suggest TWO reasons why some places are more vulnerable to tectonic hazards than others.

(4 marks)

1 _____

2 _____

(continued on the next page)

Turn over

3. continued.

(d) Explain ONE strategy to reduce the impacts from earthquake events.

(3 marks)

(continued on the next page)

3. continued.

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

Identify the type of plate boundary.

(1 mark)

(continued on the next page)

3. continued.

(f) Explain the formation of a volcano.

(4 marks)

(continued on the next page)

3. continued.

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

**Analyse the short– and long–term impacts of
the earthquake event.**

(8 marks)

Answer lines continue on the next two pages.

3. (g) continued.

[illegible]

Turn over

3. (g) continued.

[illegible]

(Total for Question 3 = 25 marks)

TOTAL FOR SECTION A = 50 MARKS

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

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Investigating river environments

4. (a) (i) Identify which of the following statements refers to systematic sampling.

- A** Collecting data at random sites along a river.
- B** Collecting data every 100 metres along a river.
- C** Collecting data from two different river catchments.
- D** Collecting data from three sites along a river.

Answer

(1 mark)

(continued on the next page)

4. (a) continued.

(ii) Name ONE piece of equipment you would use to measure river wetted perimeter.

(1 mark)

(iii) Describe ONE health and safety risk it is important to be aware of when carrying out fieldwork near rivers.

(2 marks)

(continued on the next page)

4. continued.

(b) Study Figure 4 in the Resource Book. It shows information about some design, some data collection methods used, data presentation and conclusion.

The aim of the student's enquiry was to examine change in river channel shape along the course of a river.

Evaluate how far the design and the data collection methods provided reliable evidence for the student's conclusions.

(8 marks)

Answer lines continue on the next three pages.

4. (b) continued.

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4. (b) continued.

[illegible]

4. (b) continued.

(Total for Question 4 = 12 marks)

If you answer Question 5 put a cross in this box

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Investigating coastal environments

5. (a) (i) Identify the correct definition of systematic sampling.
- A** Collecting data at random sites along a coastline.
 - B** Collecting data every **100** metres along a coastline.
 - C** Collecting data from two different coastlines.
 - D** Collecting data from three sites along a coastline.

Answer

(1 mark)

(continued on the next page)

5. (a) continued.

(ii) Name ONE piece of equipment you would use to measure beach gradient.

(1 mark)

(iii) Describe ONE health and safety risk it is important to be aware of when carrying out fieldwork in a coastal environment.

(2 marks)

(continued on the next page)

5. continued.

(b) Study Figure 5 in the Resource Book. It shows information about some design, some data collection methods used, data presentation and a conclusion.

The aim of the student's investigation was to examine change in beach characteristics along the stretch of coastline.

Evaluate how far the design and the data collection methods provided reliable evidence for the student's conclusions.

(8 marks)

Answer lines continue on the next three pages.

Turn over

5. (b) continued.

[illegible]

5. (b) continued.

[illegible]

Turn over

5. (b) continued.

(Total for Question 5 = 12 marks)

If you answer Question 6 put a cross in this box

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Investigating hazardous environments

6. (a) (i) Identify the correct definition of systematic sampling.

- A** Collecting rainfall data at random sites in a town.
- B** Collecting rainfall data every 1 km away from the town centre.
- C** Collecting rainfall data from two different towns.
- D** Collecting rainfall data from three sites in a town.

Answer

(1 mark)

(continued on the next page)

Turn over

6. (a) continued.

(ii) Name ONE piece of equipment you would use to measure rainfall.

(1 mark)

(iii) Describe ONE health and safety risk it is important to be aware of when carrying out fieldwork related to hazardous environments.

(2 marks)

(continued on the next page)

6. continued.

(b) Study Figure 6 in the Resource Book. It shows information about some design, some data collection methods used, data presentation and a conclusion.

The aim of the student's investigation was to examine change in weather patterns using a weather diary.

Evaluate how far the design and the data collection methods provided reliable evidence for the student's conclusions.

(8 marks)

Answer lines continue on the next three pages.

6. (b) continued.

[illegible]

Turn over

6. (b) continued.

[illegible]

Turn over

6. (b) continued.

(Total for Question 6 = 12 marks)

TOTAL FOR SECTION B = 12 MARKS

TOTAL FOR PAPER = 62 MARKS

END OF PAPER
