



Surname _____

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Centre Number _____

Candidate Number _____

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I declare this is my own work.

GCSE

GEOGRAPHY

**Paper 1 Living with the
Physical Environment**

8035/1

Monday 22 May 2023 Afternoon

Time allowed: 1 hour 30 minutes

**At the top of the page, write your surname
and forenames, your centre number, your
candidate number and add your signature.**

[Turn over]



J U N 2 3 8 0 3 5 1 0 1

MATERIALS

For this paper you must have:

- **the OS map key insert (enclosed)**
- **the insert (enclosed)**
- **a pencil**
- **a rubber**
- **a ruler.**

You may use a calculator.

INSTRUCTIONS

- **Use black ink or black ball-point pen.**
- **Answer ALL questions in Section A AND Section B.**
- **Answer TWO questions in Section C Question 3 (Coasts), Question 4 (Rivers), Question 5 (Glacial).**
- **You must answer the questions in the spaces provided. Do NOT write on blank pages.**
- **If you need 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

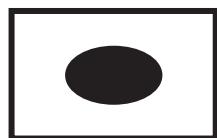
- **The marks for questions are shown in brackets.**
- **The total number of marks available for this paper is 88.**
- **Spelling, punctuation, grammar and specialist terminology will be assessed in Question 01.11.**

**DO NOT TURN OVER UNTIL TOLD
TO DO SO**



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

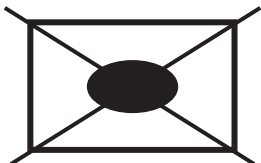
CORRECT METHOD



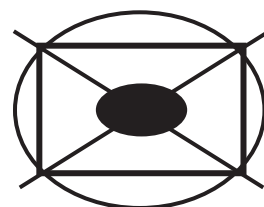
WRONG METHODS



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 The challenge of natural hazards

Answer ALL questions in this section.

QUESTION 1 The challenge of natural hazards

01.1

Which ONE of the following is a natural factor affecting climate change?

Shade ONE circle only. [1 mark]

☐

A Agriculture

☐

B Burning fossil fuels

☐

C Deforestation

☐

D Volcanic activity

[Turn over]



Study FIGURE 1, on page 2 of the insert, a graph showing average monthly Arctic sea ice extent in September between 1980 and 2020.

0 1 . 2

Using FIGURE 1, which ONE of the following statements is true?

Shade ONE circle only. [1 mark]

☐

A The sea ice extent in 1980 and 2000 was the same.

☐

B The sea ice reached its smallest extent in 2012.

☐

C The sea ice decreased every year between 1980 and 1996.

☐

D The sea ice increased from 2000 to 2020.



0	1	.	3
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Using FIGURE 1, by how much did the extent of sea ice change between 1980 and 2016? [1 mark]

_____ million km²

[Turn over]



Study FIGURE 2, on page 3 of the insert, a world map showing some possible effects of climate change.

0 1 . 4

Suggest how climate change may have effects on people.

Use FIGURE 2 and your own understanding. [4 marks]

[illegible]

[Turn over]



Study FIGURE 3, on page 4 of the insert, a diagram showing the global atmospheric circulation.

0 1 . 5

Using FIGURE 3, complete the following paragraph. [3 marks]

Air from the Equator rises and moves towards the poles, then cools down and sinks at approximately

north and south of the Equator.

The sinking air creates an area of

pressure with very little rainfall. Some of the air moves back to the Equator as surface winds called

Study FIGURE 4, on pages 6 and 7 of the insert, information about the tracks of tropical storms and the locations affected by major tropical storms.

0 1 . 6

Using FIGURE 4, which statement describes where tropical storms form?

Shade ONE circle only. [1 mark]

☐

A Between the Tropics

☐

B In the centre of large land masses

☐

C South of the Tropic of Capricorn

☐

D Along the west coasts of Europe and Africa

[Turn over]



0	1	.	7
---	---	---	---

Using FIGURE 4, name the tropical storm which caused the greatest number of deaths after the year 2000. [1 mark]

0	1	.	8
---	---	---	---

Calculate the median number of deaths caused by the tropical storms listed in FIGURE 4. [1 mark]



0	1	.	9
---	---	---	---

Outline ONE reason why the number of deaths caused by tropical storms varies. [2 marks]

[Turn over]



Study FIGURE 5, on pages 8 and 9 of the insert, a photograph of a cyclone shelter in Bangladesh and a map showing the predicted track of Cyclone Amphan in May 2020.

01.10

To what extent can protection and prediction strategies reduce the effects of tropical storms?

Use FIGURE 5 and your own understanding. [6 marks]

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[Turn over]



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

[Turn over]



Study FIGURE 6, on page 10 of the insert, diagrams of different types of plate margin.

01.11

Suggest how the processes taking place at different types of plate margin can lead to earthquakes and volcanic activity.

**Use FIGURE 6 and your own understanding.
[9 marks] [+ 3 SPaG marks]**



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[Turn over]



[illegible]

[End of Section A]

[Turn over]



SECTION B The living world

Answer ALL questions in this section.

QUESTION 2 The living world

Study FIGURE 7, on page 11 of the insert, a diagram of a food web.

0 2 . 1

Using FIGURE 7, identify a producer.
[1 mark]

0 2 . 2

What is the difference between a food chain and a food web? [1 mark]



0	2	.	3
---	---	---	---

Using FIGURE 7, state ONE effect on the food web if disease killed most of the trout. [1 mark]

0	2	.	4
---	---	---	---

For a small-scale ecosystem that you have studied, outline the link between producers and consumers. [2 marks]

[Turn over]



Study FIGURE 8, on page 12 of the insert, a world map showing the location of tropical rainforests.

0 2 . 5

Using FIGURE 8, describe the distribution of tropical rainforests. [2 marks]

Study FIGURE 9, on page 13 of the insert, a diagram showing flows and stores in the nutrient cycle of a tropical rainforest.

0 2 . 6

Using FIGURE 9, what percentage of the biomass is stored in the roots?

Shade ONE circle only. [1 mark]

☐ **A 7.5%**

☐ **B 12.5%**

☐ **C 17.5%**

☐ **D 22.5%**

[Turn over]



0 2 . 7

Outline ONE reason why nutrient cycling is very rapid in tropical rainforests.

[1 mark]

0 2 . 8

Suggest ONE example of a human activity that might interfere with the nutrient cycle shown in FIGURE 9.

[1 mark]



Study FIGURE 10, a Fact file about deforestation in the tropical rainforests.

FIGURE 10

Tropical rainforests are home to more than 50% of the plant and animal species on Earth.

Deforestation from 2001 to 2019 released 105 gigatonnes of carbon dioxide into the atmosphere.

Cattle ranching accounts for 80% of current deforestation in Brazil.

Indonesia's forests are being cleared to create oil palm plantations.

Bauxite, iron ore, manganese, gold and diamonds are mined in tropical forests.

Removal of forest increases the risk of flooding and soil erosion.

[Turn over]



0	2	.	9
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‘Tropical rainforest deforestation has major economic and environmental impacts.’

Do you agree?

**Use FIGURE 10 and your own understanding to explain your answer.
[6 marks]**



[illegible]

[Turn over]



[illegible]

[Turn over]



0	2	.	1	0
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Extreme environments provide opportunities for economic development.

These opportunities include energy, farming, fishing, mining and tourism.

Choose EITHER a hot desert environment OR a cold environment.

Discuss the opportunities for economic development in your chosen environment.

Use a case study and your own understanding. [9 marks]

Chosen environment _____



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[illegible]

[End of Section B]

[Turn over]



SECTION C Physical landscapes in the UK

Answer TWO questions from the following:

**Question 3 (Coasts), Question 4 (Rivers),
Question 5 (Glacial).**



QUESTION 3 Coastal landscapes in the UK

03.1

Which ONE of the following is a process of erosion in coastal areas?

Shade ONE circle only. [1 mark]

☐

A Hydraulic power

☐

B Longshore drift

☐

C Rock fall

☐

D Slumping

[Turn over]



0	3	.	2
---	---	---	---

Give ONE type of weathering that takes place in coastal areas. [1 mark]

Study FIGURE 11, on page 14 of the insert, an Ordnance Survey map showing part of northern Scotland.

0 3 . 3

Using FIGURE 11, what is the straight-line distance between Hill of Crogodale, marked X, and Duncansby Head, marked Y?

Shade ONE circle only. [1 mark]

☐ **A 2.25 km**

☐ **B 2.75 km**

☐ **C 3.25 km**

☐ **D 3.75 km**

[Turn over]



Study FIGURE 12, on page 15 of the insert, a photograph looking northwards along the coastline towards Duncansby Head.

0 3 . 4

Using FIGURE 11 and FIGURE 12, describe TWO pieces of evidence that show that this coastline is being eroded. [2 marks]

1

2

BLANK PAGE

[Turn over]



0	3	.	5
---	---	---	---

**Explain how spits and bars form along the coast as a result of deposition.
[4 marks]**

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[Turn over]



Study FIGURE 13, on page 16 of the insert, a photograph of coastal defences in Withernsea in eastern England.

03.6

Discuss the costs and benefits of hard engineering strategies for coastal management.

Use FIGURE 13 and your own understanding. [6 marks]



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[Turn over]



15

[End of Question 3]



QUESTION 4 River landscapes in the UK**04.1**

Which word describes the process of erosion when stones collide with each other as they move downstream?

Shade ONE circle only. [1 mark]

☐**A Abrasion**☐**B Attrition**☐**C Hydraulic action**☐**D Solution**

[Turn over]



0	4	.	2
---	---	---	---

Give ONE way rivers transport material.
[1 mark]



Study FIGURE 14, on page 17 of the insert, an Ordnance Survey map extract showing the River Crouch estuary in Essex.

0 4 . 3

Using FIGURE 14, what is the approximate area of grid square 0495 covered by salt marsh?

Shade ONE circle only. [1 mark]

☐ **A 0.2 km²**

☐ **B 0.4 km²**

☐ **C 0.6 km²**

☐ **D 0.8 km²**

[Turn over]



Study FIGURE 15, on page 18 of the insert, a photograph of the Crouch estuary in Essex.

0 4 . 4

Using FIGURE 14 and FIGURE 15, describe TWO characteristics of an estuary. [2 marks]

1 _____

2 _____



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[Turn over]



04.5

Explain how physical factors can affect flood risk. [4 marks]

[Turn over]



Study FIGURE 16, an extract from a website that gives details of a flood management scheme on the River Thames.

FIGURE 16

The River Thames between Datchet and Teddington has the largest area of undefended developed floodplain in England.

The estimated economic impact of a major flood in the area is currently around £1 billion. Due to the impact of climate change, damage could be twice as great by 2055.

The Environment Agency is planning to build a new flood channel along this part of the River Thames.

This scheme will bring many benefits, including protection from flooding for 15 000 homes and 2400 businesses, improved biodiversity for wildlife through the creation of 250 hectares of new habitat and opportunities for recreational activities including walking, cycling, boating and angling.



0	4	.	6
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Discuss the issues which can arise from flood management schemes.

Use FIGURE 16 and your own understanding. [6 marks]

[Turn over]



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15

[End of Question 4]

[Turn over]



QUESTION 5 Glacial landscapes in the UK**05.1**

What is the name given to a large boulder transported and deposited by glaciers in areas with a different rock type?

Shade ONE circle only. [1 mark]

☐**A Erratic**☐**B Moraine**☐**C Outwash**☐**D Till****05.2**

**Give ONE way glaciers move material.
[1 mark]**



Study FIGURE 17, on page 19 of the insert, an Ordnance Survey map showing part of Snowdonia National Park in Wales.

0 5 . 3

FIGURE 17 shows Cwm Idwal, an example of a glacial corrie.

Give the six-figure grid reference for the part of the corrie marked X.

Shade ONE circle only. [1 mark]

☐ **A 592 641**

☐ **B 602 642**

☐ **C 642 591**

☐ **D 645 597**

[Turn over]



Study FIGURE 18, on page 20 of the insert, a photograph of Llyn Ogwen, a ribbon lake in Snowdonia shown on the map extract at point Y.

0 5 . 4

Using FIGURE 17 and FIGURE 18, describe TWO characteristics of a ribbon lake. [2 marks]

1 _____

2 _____



0	5	.	5
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Explain how corries form as a result of glacial erosion. [4 marks]

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[Turn over]



Study FIGURE 19, on page 21 of the insert, an extract from a newspaper article about a zip wire proposal in the Lake District in 2018.

0 5 . 6

Discuss the possible conflict between development and conservation in glaciated areas.

Use FIGURE 19 and your own understanding. [6 marks]





END OF QUESTIONS



Additional page, if required. Write the question numbers in the left-hand margin.

[illegible]

Additional page, if required. Write the question numbers in the left-hand margin.

[illegible]

Additional page, if required. Write the question numbers in the left-hand margin.

[illegible]

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Question	Mark
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4	
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TOTAL	

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