Please write clearly in block capitals.

Centre number | | | | | | Candidate number | | | | |

Surname _____

Forename(s) _____

Candidate signature _____
I declare this is my own work.

GCSE
GEOGRAPHY

Paper 1 Living with the Physical Environment

Monday 18 May 2020 Morning Time allowed: 1 hour 30 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 and Section B.

Answer two questions in Section C.

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

- You must answer the questions in 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.
- HIC is a higher income country.
- LIC is a lower income country.
- NEE is a newly emerging economy.
- Spelling, punctuation, grammar and specialist terminology will be assessed in Question **01.12**.

Do not write outside the box

There are no questions printed on this page

DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED

Do not write outside the box

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

0 1 . 1 Which **one** of the following statements about tropical storms is true?

Shade **one** circle only.

[1 mark]

A Tropical storms gain energy as they reach land. ⬭

B Tropical storms develop along the Equator. ⬭

C Tropical storms occur in areas of high pressure. ⬭

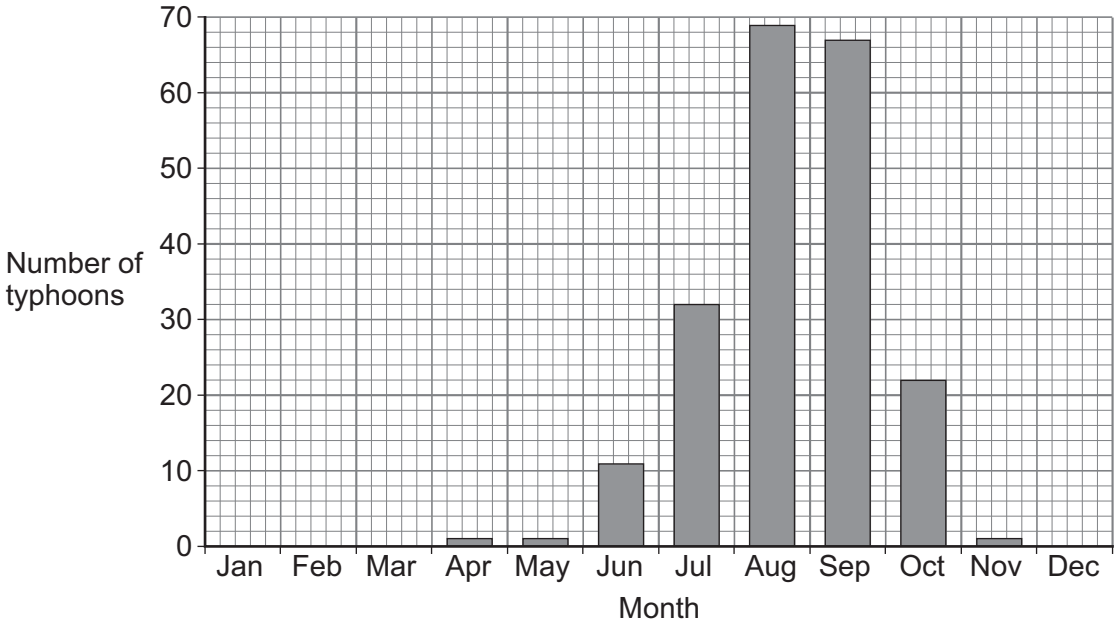
D Tropical storms form above oceans where temperatures are over 27 ºC. ⬭

Question 1 continues on the next page

Do not write outside the box

Study **Figure 1**, a graph showing the number of tropical storms (typhoons) that reached Japan in each month from 1851 to 2018.

Figure 1



0 1 . 2 The total number of typhoons reaching Japan was 204.

What percentage of the total number of typhoons occurred in August?

Give your answer to the nearest **whole** percentage.

[2 marks]

Show your working

_____ %

0 1 . 3 Give **one** reason why tropical storms have a seasonal pattern.

[1 mark]

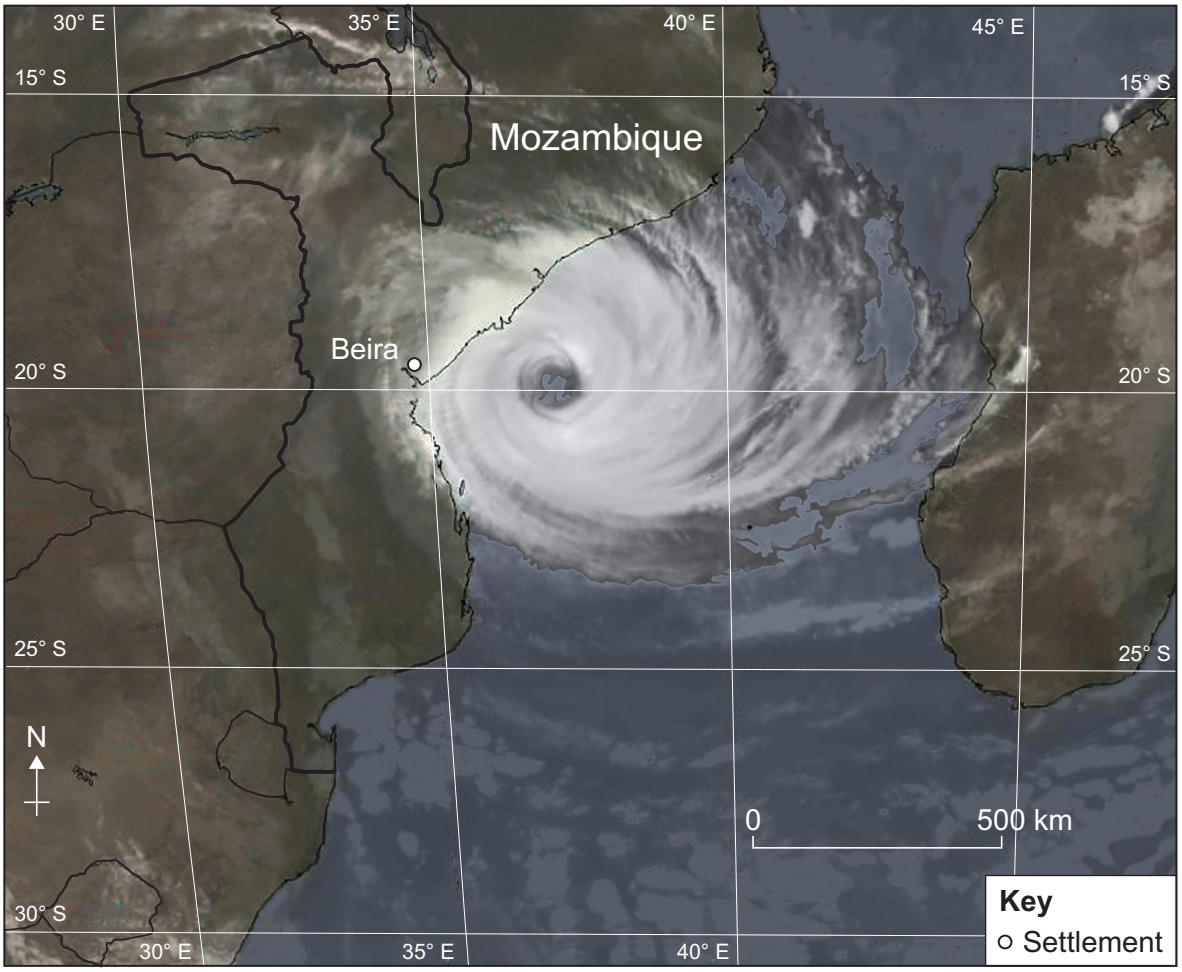
_____

_____

Do not write outside the box

Study **Figure 2**, a satellite image showing Cyclone Idai approaching Mozambique, Africa in March 2019.

Figure 2



0 1 . 4 Describe the structure of Cyclone Idai shown in **Figure 2**.

[2 marks]

_____

_____

_____

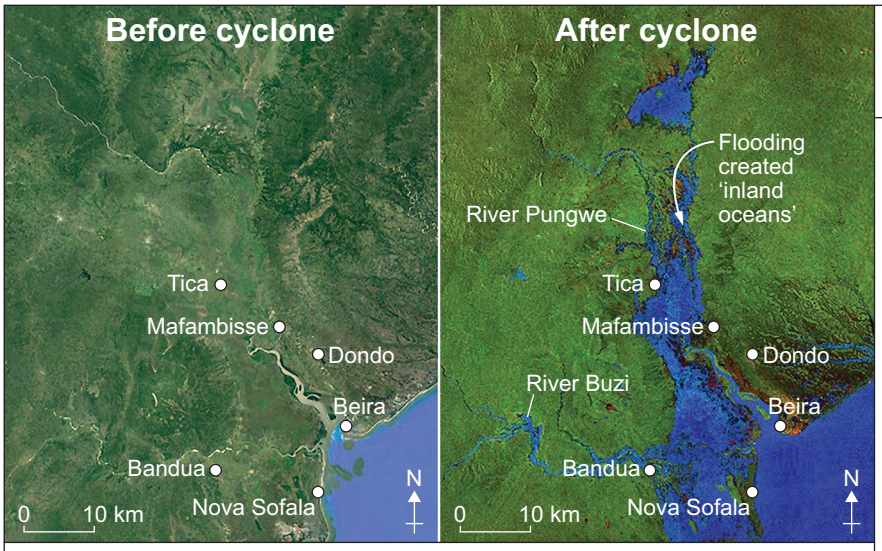
_____

Question 1 continues on the next page

Do not write outside the box

Study **Figure 3**, information about Cyclone Idai and its impacts on Mozambique.

Figure 3



Key

○ Settlement

Cyclone Idai

Wind speeds of up to 200 km per hour

Over 150 mm of rain in 24 hours

1300 deaths

Over 1 million people displaced

90% of city of Beira damaged or destroyed

Cholera outbreak, with 5000 people affected

Total damage US$2.2 billion

Mozambique data

GNI US$1153 per person per year

80% of the population lives on less than US$2 a day

0 1 . 5 Suggest why some tropical storms have severe primary **and** secondary effects.

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

[6 marks]

Do not write outside the box

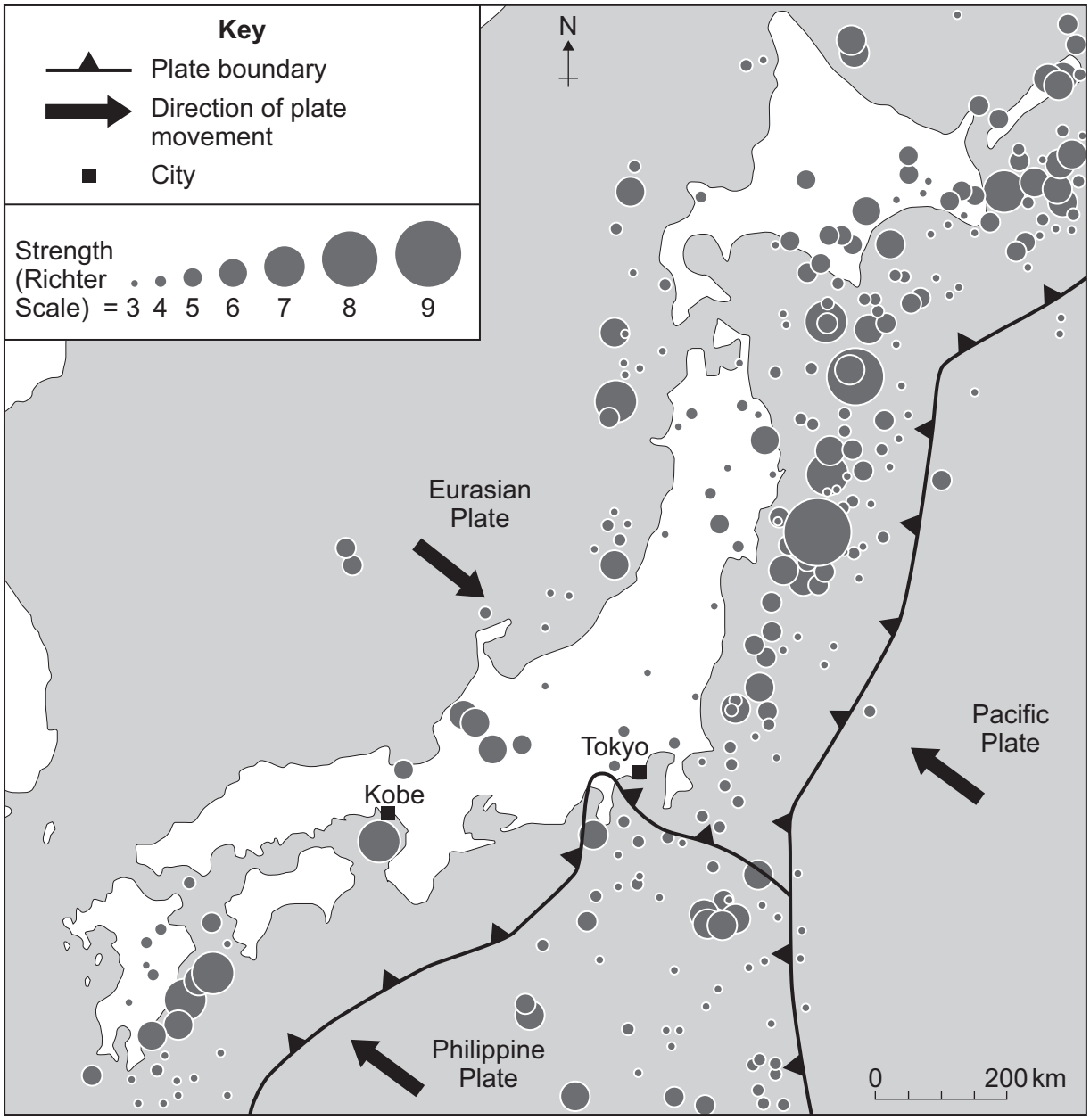
Extra space

Question 1 continues on the next page

Do not write outside the box

Study **Figure 4**, a map showing the distribution of earthquakes in and around Japan.

Figure 4



Do not write outside the box

0 1 . 6 Using **Figure 4**, which **one** of the following statements is true?

Shade **one** circle only.

[1 mark]

A Most of the stronger earthquakes happened on land. ⬭

B Most earthquakes happened to the east and south east of Japan. ⬭

C Most earthquakes around Japan were over 7 on the Richter Scale. ⬭

D No earthquakes greater than 5 on the Richter Scale happened to the west of Japan. ⬭

0 1 . 7 Using **Figure 4**, name the type of plate margin between the Pacific and Eurasian plates.

[1 mark]

_____

_____

0 1 . 8 Suggest **one other** tectonic hazard likely to occur near to the plate margins shown in **Figure 4**.

[1 mark]

_____

_____

Question 1 continues on the next page

Do not write outside the box

0 1 . 9 Explain how the risks of a tectonic hazard can be reduced.

[4 marks]

Extra space

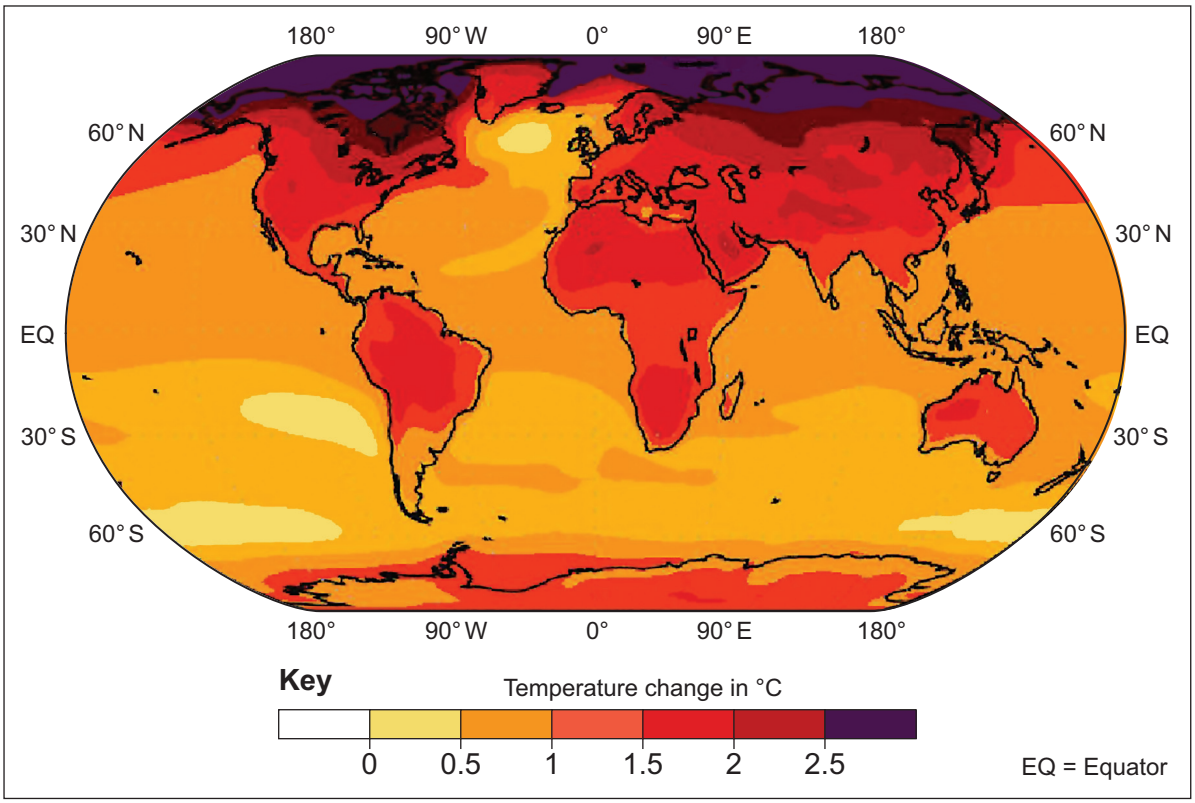
0 1 . 1 0 State **one** source of evidence for long-term climate change during the Quaternary period.

[1 mark]

Do not write outside the box

Study **Figure 5**, a world map showing projected global temperature change between 2000 and 2100.

Figure 5



0 1 . 1 1 Using **Figure 5**, which **one** of the following statements is true?

Shade **one** circle only.

[1 mark]

A The greatest increase in temperature will be along the Equator. ⬭

B Most of Africa will have a rise in temperature of between 0 ºC and 0.5 ºC. ⬭

C The oceans will show a greater increase in temperature than land areas. ⬭

D Areas north of 60 ºN will have the greatest increase in temperature. ⬭

Question 1 continues on the next page

Do not write outside the box

Study **Figure 6**, photographs showing strategies used to manage climate change.

Figure 6

Carbon Capture image
cannot be reproduced here due to third-party copyright restrictions.

Do not write outside the box

0 1 . 1 2 'Managing climate change involves both reducing causes (mitigation) and responding to change (adaptation).'

Do you agree?

Explain your answer.

Use **Figure 6** and your own understanding.

[9 marks]
[+3 SPaG marks]

Extra space

Do not write outside the box

33

End of Section A

Do not write outside the box

Section B The living world

Answer **all** questions in this section.

Question 2 The living world

0 2 . 1 For a small scale ecosystem you have studied, name **one** producer and **one** consumer.

[2 marks]

Producer _____

Consumer _____

0 2 . 2 What is the role of producers in an ecosystem?

[1 mark]

_____

_____

Question 2 continues on the next page

Do not write outside the box

Study **Figure 7**, which shows annual climate data for two different environments.

Figure 7

Place A

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (mm)	3	2	1	1	0	1	0	0	0	4	7	8
Average temperature (ºC)	16.0	16.7	17.9	18.6	20.3	21.4	23.3	23.9	23.3	22.3	20.1	15.4

Place B

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (mm)	16	20	21	12	9	11	16	28	26	17	19	18
Average temperature (ºC)	–14.0	–14.5	–13.3	–10.6	–3.5	2.6	6.2	5.1	1.0	–4.9	–8.7	–12.2

0 2 . 3 Using **Figure 7**, calculate the temperature range in Place **A**.

[1 mark]

_____ ºC

0 2 . 4 Using **Figure 7**, state **two** differences between the climate in Place **A** and Place **B**.

[2 marks]

1 _____

_____

2 _____

_____

Do not write outside the box

0 2 . 5 Which global ecosystem matches the following description?

An area with trees which drop their leaves in winter.

Shade **one** circle only.

[1 mark]

A Tundra. ⬭

B Tropical grassland. ⬭

C Deciduous forest. ⬭

D Tropical rainforest. ⬭

Question 2 continues on the next page

Do not write outside the box

Figure 8 shows strategies to reduce the risk of desertification in the Sahel, Africa.

Figure 8

Map showing The Great Green Wall tree-planting scheme and
Image showing person building rock walls (Bunds)
cannot be reproduced here due to third-party copyright restrictions.

Figure 9 shows strategies used to balance the needs of economic development and conservation in cold environments.

Figure 9

Image of Brown Bear
cannot be reproduced here due to third-party copyright restrictions.

Do not write outside the box

0 2 . 6 Suggest how different strategies are used to reduce environmental damage in **either**:

- an area on the fringe of a hot desert **or**
- a cold environment.

Use **Figure 8** **or** **Figure 9** and your own understanding.

[6 marks]

Extra space

Question 2 continues on the next page

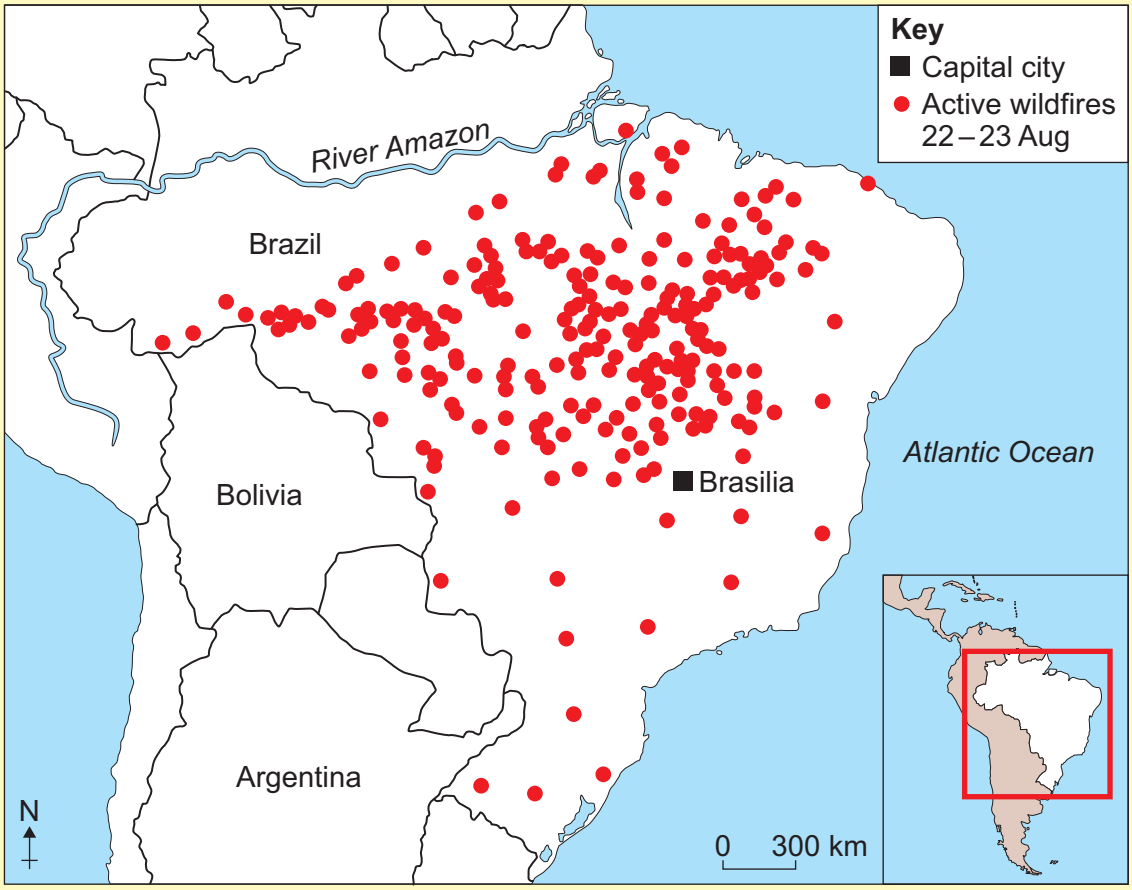
Do not write outside the box

Study **Figure 10**, a newspaper article about wildfires in Brazil in August 2019.

Figure 10

Brazil wildfires release stored carbon, scientists warn

2019 has seen an increase in illegal burning in the Brazil rainforest as farmers and loggers use fires to clear land. Scientists warn that these fires are a major threat to global climate.



0 2 . 7 Using **Figure 10**, give **one** feature of the pattern of wildfires in Brazil.

[1 mark]

_____

_____

Do not write outside the box

0 2 . 8 Outline **one** reason why wildfires are a threat to global climate.

[2 marks]

_____

_____

_____

_____

Question 2 continues on the next page

Do not write outside the box

Study **Figure 11**, which shows some causes of deforestation in tropical rainforests.

Figure 11

Shifting cultivation

Palm oil plantation in Indonesia

Ecotourism resort in the Amazon

Hydro-electric dam in Brazil

0 2 . 9 'Some economic activities in tropical rainforests have major environmental impacts.'

Do you agree?

Use **Figure 11** and a case study to explain your answer.

[9 marks]

Do not write outside the box

Extra space

25

End of Section B

Do not write outside the box

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

Study **Figure 12**, opposite, a physical map of the British Isles.

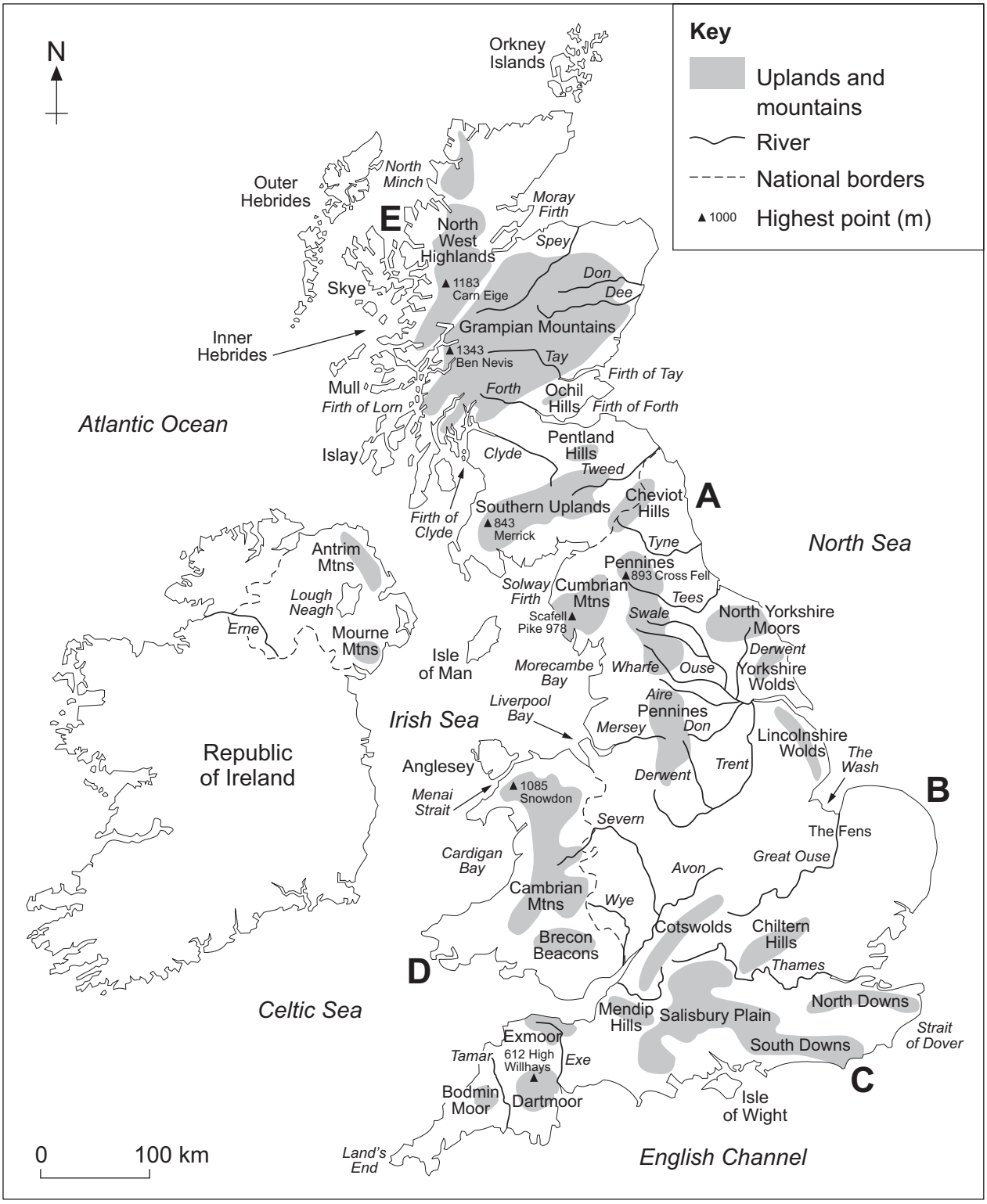
0 3 . 1 Match the following descriptions of coastal landscapes in the UK with the correct letter shown on **Figure 12**.

[2 marks]

Description of coastal landscape	**Letter**
An uneven coastline with several large islands offshore	
A headland which marks the coastal limit of the South Downs	

Do not write outside the box

Figure 12



Question 3 continues on the next page

Do not write outside the box

Study **Figure 13**, an image showing a coastal realignment scheme at Medmerry, West Sussex.

Figure 13

0 3 . 2 Using **Figure 13**, state what has happened to the area behind the shingle beach at high tide.

[1 mark]

_____

_____

0 3 . 3 Suggest **one** advantage of the coastal management strategy shown in **Figure 13**.

[1 mark]

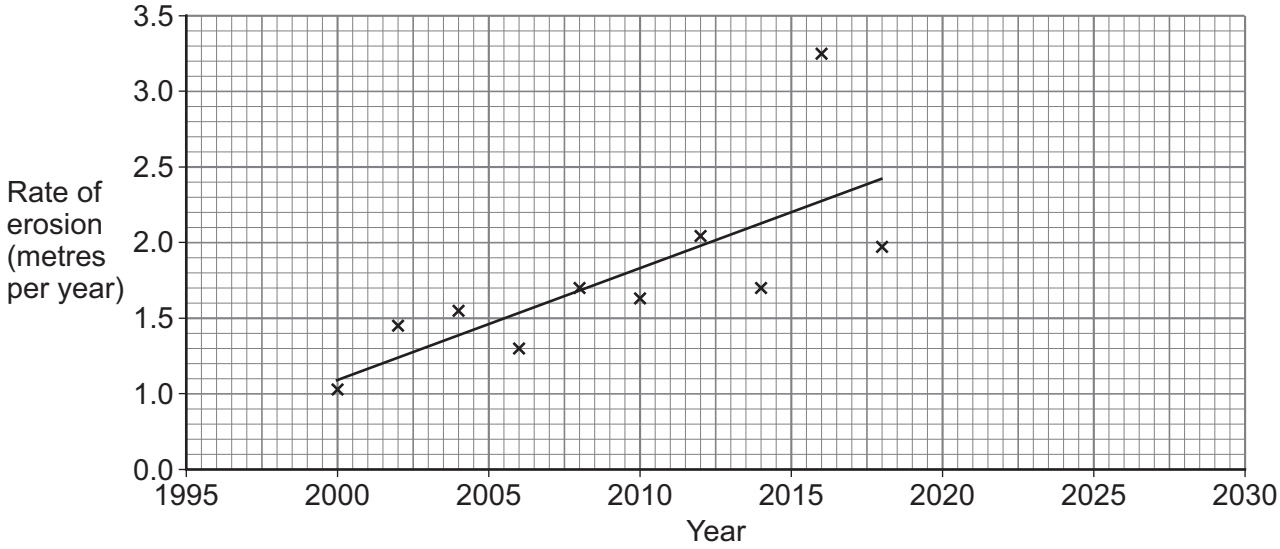
_____

_____

Do not write outside the box

Study **Figure 14**, a graph showing rates of erosion at a coastal site between 2000 and 2018.

Figure 14



0 3 . 4 Using **Figure 14**, what is the projected rate of erosion for 2030?

[1 mark]

_____ metres per year

0 3 . 5 Explain the benefits of using hard engineering strategies to protect the coastline.

[4 marks]

_____

_____

_____

_____

_____

_____

_____

_____

Extra space _____

_____

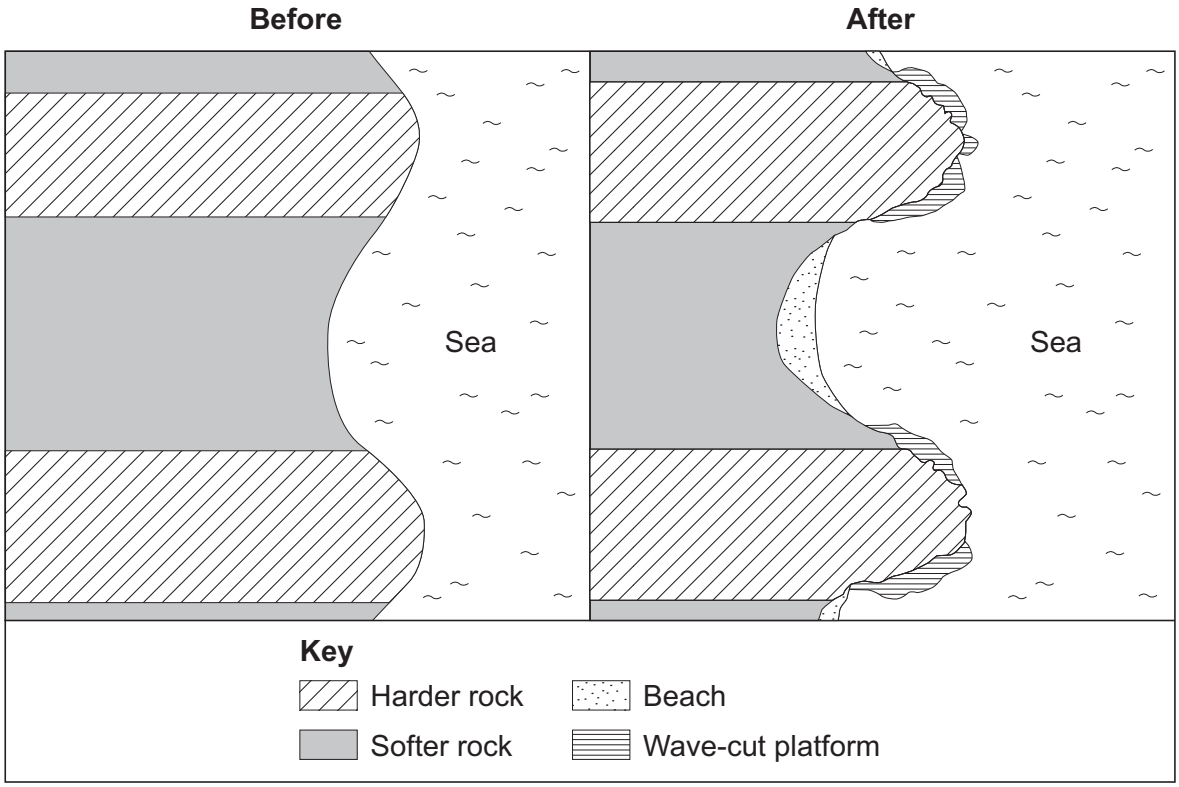
_____

Turn over ▶

Do not write outside the box

Study **Figure 15**, a photograph of part of Dorset, and sketch maps showing changes in the shape of a coastline over time.

Figure 15



Do not write outside the box

0 3 . 6 Explain the formation of the physical features of the coastline shown in **Figure 15**.

[6 marks]

Extra space

15

End of Question 3

Do not write outside the box

Question 4 **River landscapes in the UK**

Study **Figure 16**, opposite, a physical map of the British Isles.

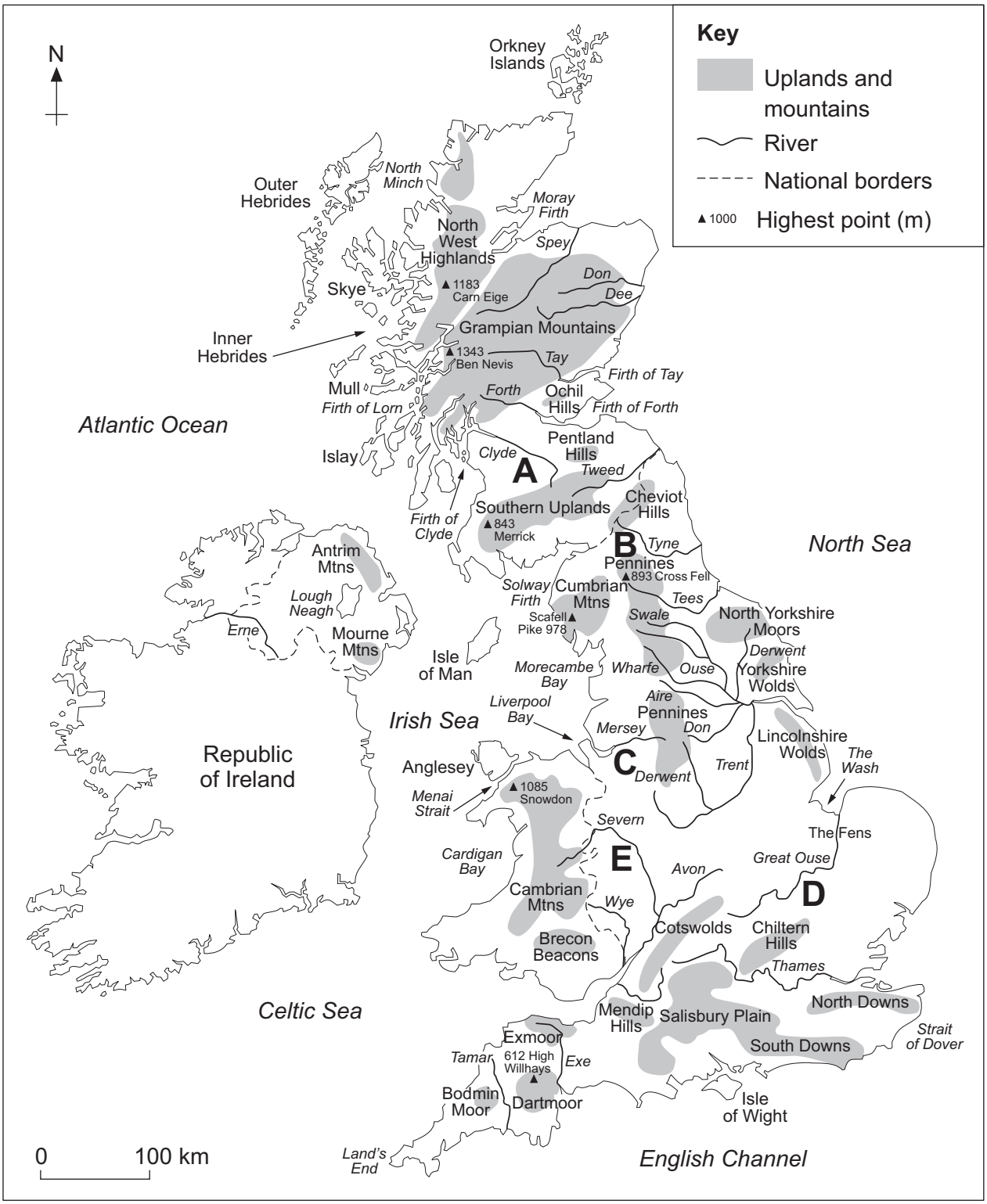
0 4 . 1 Match the following descriptions of rivers in the UK with the correct letter shown on **Figure 16**.

[2 marks]

Description of river	**Letter**
A river which flows west from the Pennines into Liverpool Bay	
A river which flows north east through the Fens and into the Wash	

Do not write outside the box

Figure 16



Question 4 continues on the next page

Do not write outside the box

Study **Figure 17**, a photograph showing river straightening along the River Cuckmere in East Sussex.

Figure 17

0 4 . 2 Using **Figure 17**, describe the relief (height and shape of the land) on either side of the straightened river.

[1 mark]

_____

_____

0 4 . 3 Suggest how the strategy shown in **Figure 17** helps to manage the river.

[1 mark]

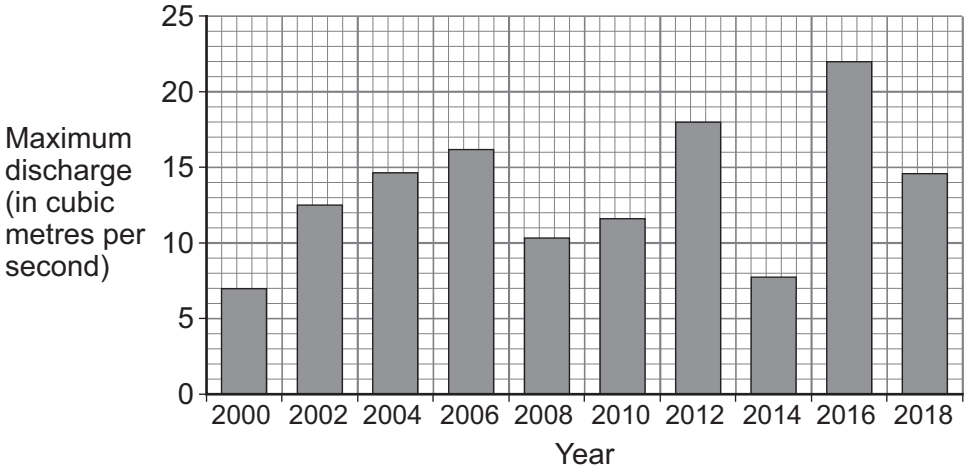
_____

_____

Do not write outside the box

Study **Figure 18**, a graph showing maximum discharge for a river between 2000 and 2018.

Figure 18



0 4 . 4 Using **Figure 18**, calculate the range of maximum discharge.

[1 mark]

_____ cubic metres per second

0 4 . 5 Explain how river levées are formed.

[4 marks]

_____

_____

_____

_____

_____

_____

_____

_____

Extra space _____

_____

_____

_____

Turn over ▶

Do not write outside the box

Study **Figure 19**, information about Cockermouth and the impact of Storm Desmond in December 2015.

Figure 19

Flood risk factors

- 340 millimetres of rain fell in the area in 24 hours.
- Cockermouth is located at the confluence (meeting point) of two rivers.
- The surrounding landscape consists of steep hills.
- Many homes and businesses are built on the flood plains of the local rivers.

0 4 . 6 Explain how physical and human factors may affect flood risk.

Use **Figure 19** and your own understanding.

[6 marks]

Do not write outside the box

Extra space

15

End of Question 4

Do not write outside the box

Question 5 Glacial landscapes in the UK

Study **Figure 20**, opposite, a physical map of the British Isles.

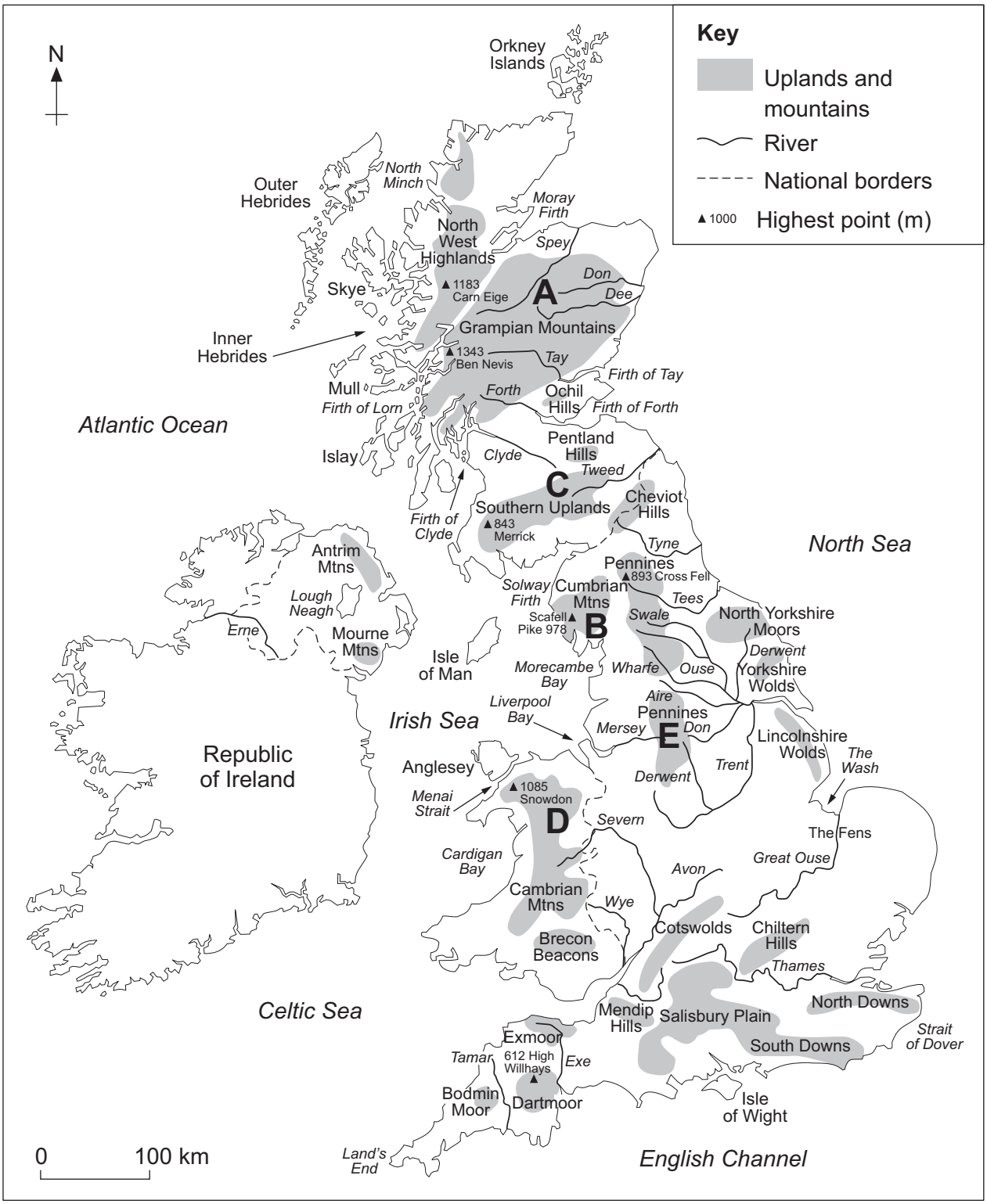
0 5 . 1 Match the following descriptions of glaciated uplands in the UK with the correct letter shown on **Figure 20**.

[2 marks]

Description of glaciated upland area	**Letter**
A mountainous area that includes the highest point in Wales	
A large mountainous area in Scotland where the highest point is over 1300 m	

Do not write outside the box

Figure 20

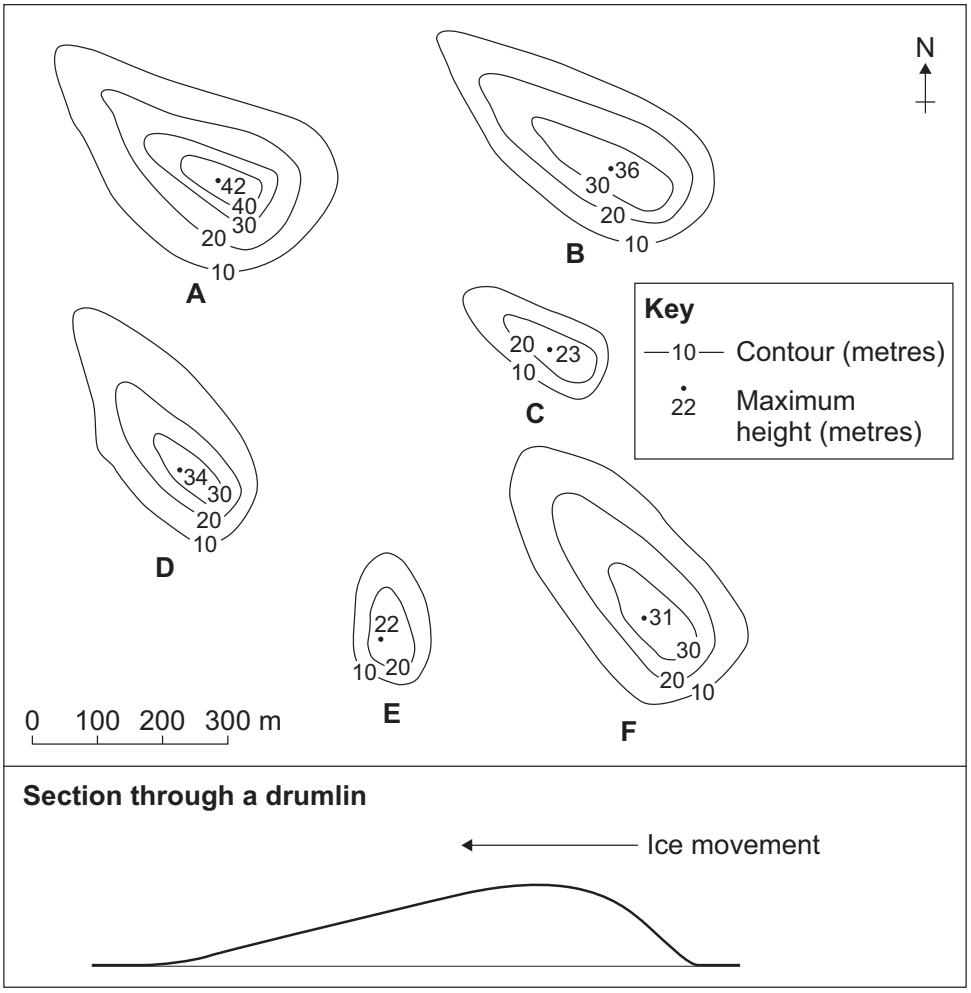


Question 5 continues on the next page

Do not write outside the box

Study **Figure 21**, a contour map and cross section showing 6 drumlins labelled **A–F**.

Figure 21



0 5 . 2 Describe the shape of the drumlins shown in **Figure 21**.

[1 mark]

_____

_____

0 5 . 3 Using **Figure 21**, calculate the mean maximum height of the 6 drumlins.

[1 mark]

_____ m

Do not write outside the box

0 5 . 4 Using evidence from **Figure 21**, suggest the general direction of movement of ice when the drumlins were formed.

[1 mark]

_____

_____

0 5 . 5 Explain how glaciated areas in the UK provide economic opportunities.

[4 marks]

_____

_____

_____

_____

_____

_____

_____

_____

Extra space _____

_____

_____

_____

Question 5 continues on the next page

Do not write outside the box

Study **Figure 22**, a photograph and diagram showing landforms of glacial erosion.

Figure 22

Image showing landform of glacial erosion (Corrie)
cannot be reproduced here due to third-party copyright restrictions.

Do not write outside the box

0 5 . 6 Explain how glacial processes have created the landforms shown in **Figure 22**.

[6 marks]

Extra space

15

END OF QUESTIONS

Do not write outside the box

There are no questions printed on this page

DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED

Do not write outside the box

There are no questions printed on this page

DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED

Do not write outside the box

There are no questions printed on this page

DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED

Copyright information

For confidentiality purposes, all acknowledgements of third-party copyright material are published in a separate booklet. This booklet is published after each live examination series and is available for free download from www.aqa.org.uk.

Permission to reproduce all copyright material has been applied for. In some cases, efforts to contact copyright-holders may have been unsuccessful and AQA will be happy to rectify any omissions of acknowledgements. If you have any queries please contact the Copyright Team.

Copyright © 2020 AQA and its licensors. All rights reserved.