

Please write clearly in block capitals.

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Candidate number

Surname _____

Forename(s) _____

Candidate signature _____

GCSE GEOGRAPHY

Paper 1 Living with the Physical Environment

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.

- You must answer the questions in the spaces provided.
- 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 87.
- Spelling, punctuation, grammar and specialist terminology will be assessed in Question 01.12.
- 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	
TOTAL	

Section A The challenge of natural hazards

Answer all questions in this section.

Question 1 The Challenge of Natural Hazards

Study **Figure 1**, a world map showing plate margins.

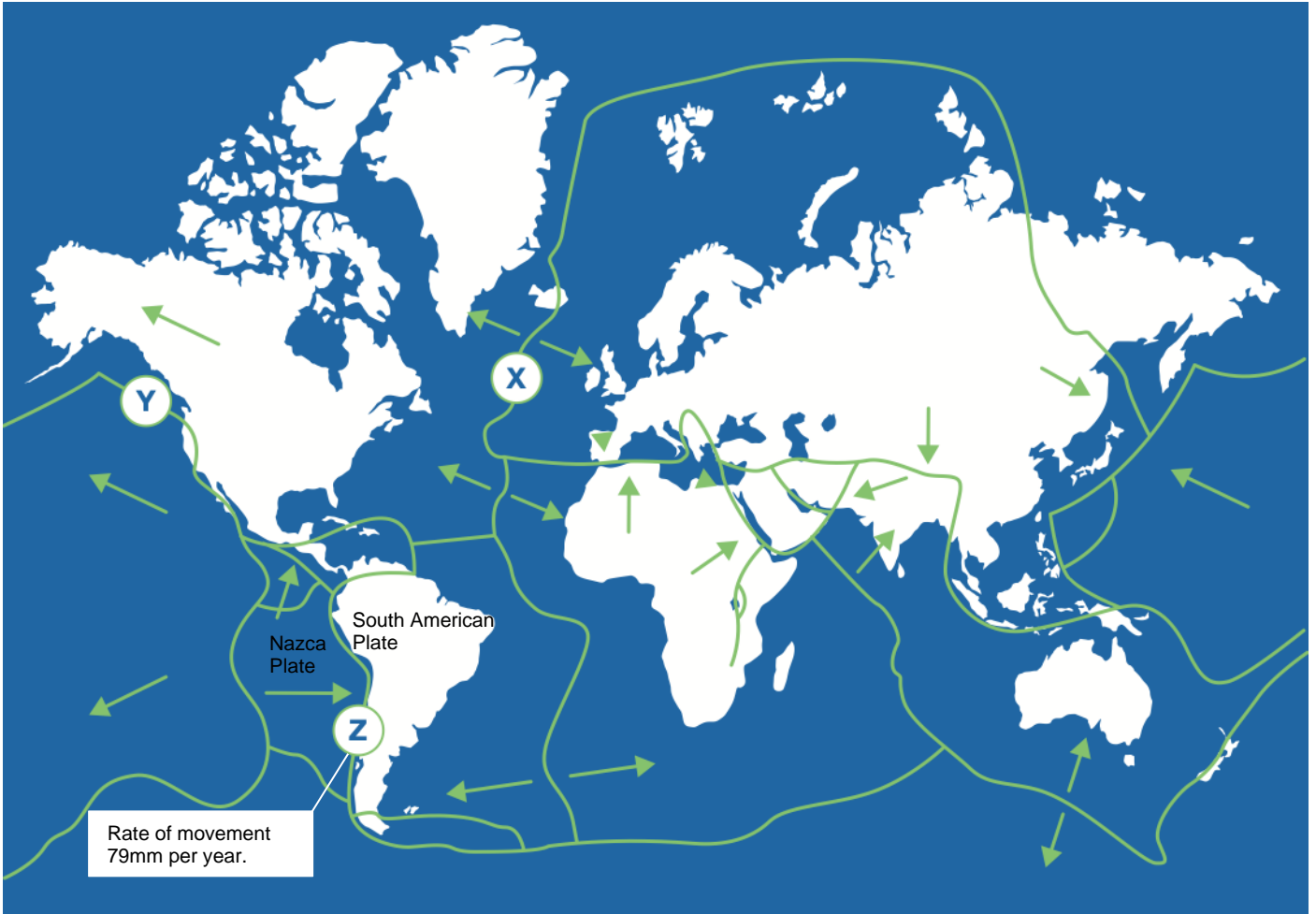


Figure 1

01.1

Using **Figure 1**, identify the type of plate margin marked by X.

- A Destructive
- B Constructive
- C Conservative

[1 mark]

01.2

Describe the movement of plates along margin Y.

[1 mark]

01.3

Using **Figure 1**, in 20 years how far will the Nazca and South American plates have moved?

- A 0.79m
- B 0.58m
- C 1.58m
- C 1.79m

[1 mark]

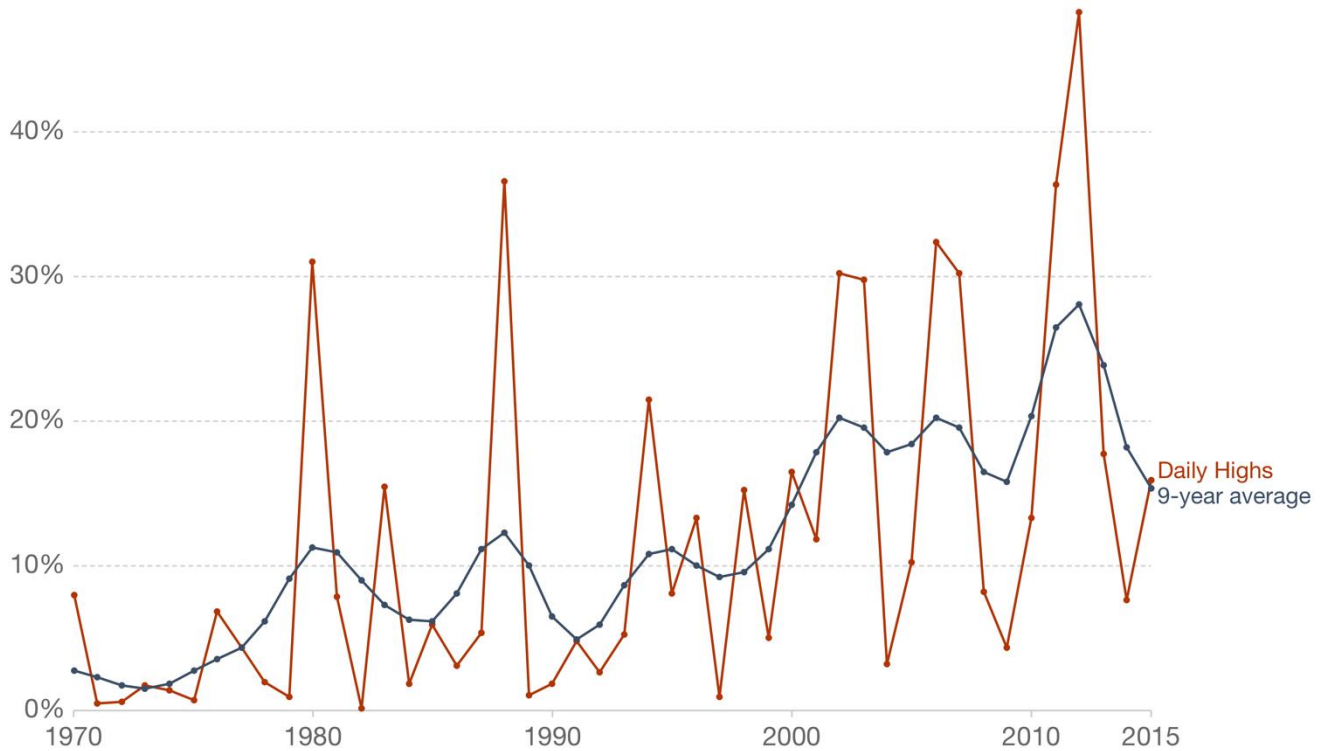
01.4

Explain why earthquake and volcanic hazards are likely to occur along the plate margin at Z.

[6 marks]

Question 1 continues on the next page

Study **Figure 2**, a graph showing the share of US land area with unusually high summer temperatures and the 9-year average.



Source: National Oceanic & Atmospheric Administration (NOAA) via the US EPA

CC BY

Figure 2

01.5

Describe the change in the share of US land area with unusually high summer temperatures shown in **Figure 2**.

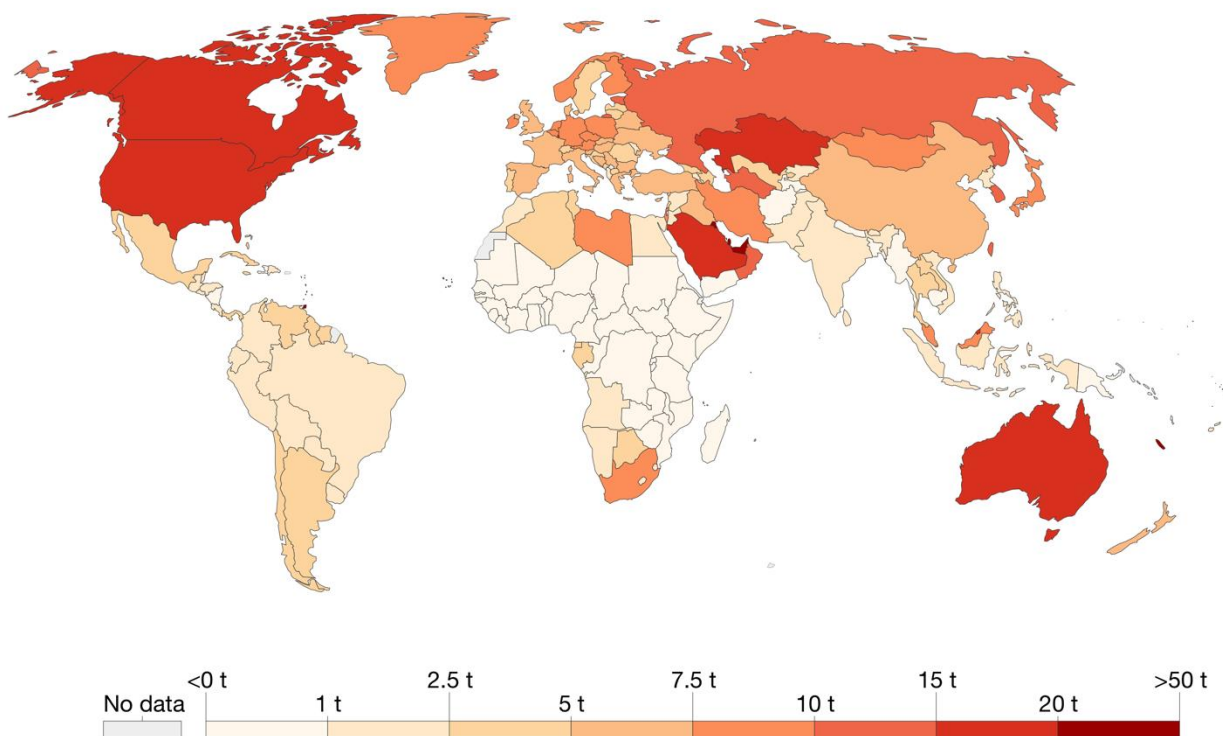
[2 marks]

01.6

Outline **one** possible human factor why the share of US land area with unusually high summer temperatures has changed over time.

[2 marks]

Study **figure 3**, a choropleth map showing CO₂ emissions per capita in 2018.



Source: OWID based on CDIAC; Global Carbon Project; Gapminder & UN
OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/ • CC BY

01.7

Using **Figure 3**, which two of the following statements are true?

Shade **two** circles only.

- A The continent with the highest CO₂ emissions is North America.
- B The continent with the highest CO₂ emissions is Africa.
- C HICs are more likely to have higher CO₂ emissions than LICs.
- D CO₂ emissions are higher in the southern hemisphere than the northern hemisphere.
- E Europe has the highest CO₂ emissions of all continents.

[2 marks]

01.8

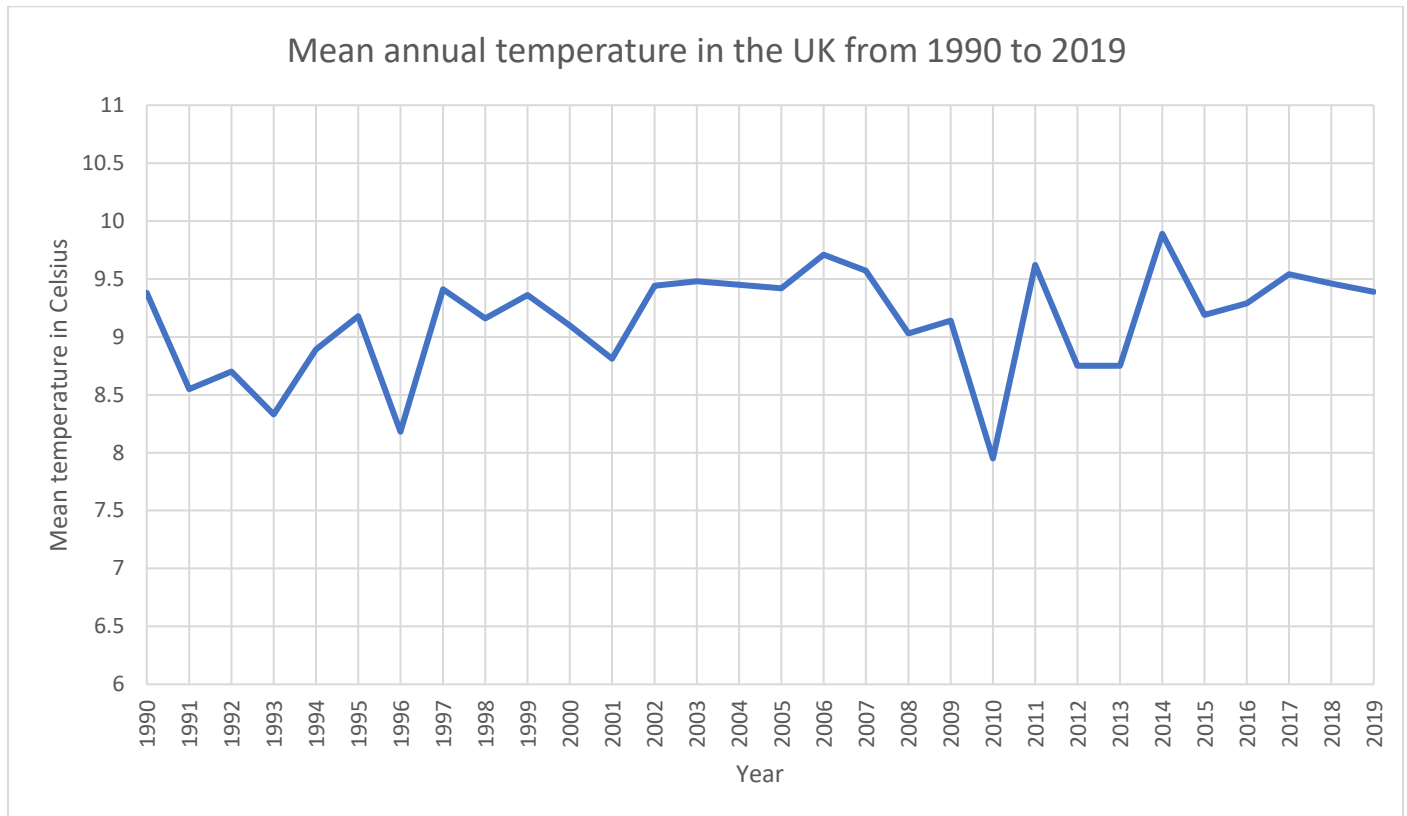
Define climate change.

[2 marks]

01.9 Identify **one** natural cause of climate change.

[1 mark]

Study **figure 4**, a line graph showing mean annual temperatures in the UK



01.10

Are the following statements about the changes in average annual temperature in the UK **true** or **false**?

Tick the correct box for each statement.

	True	False
The lowest average temperature was in 2010.	<input type="checkbox"/>	<input type="checkbox"/>
Temperatures have increased steadily.	<input type="checkbox"/>	<input type="checkbox"/>
Temperatures have fluctuated, however there is an upwards trend.	<input type="checkbox"/>	<input type="checkbox"/>
The highest temperature was in 2006.	<input type="checkbox"/>	<input type="checkbox"/>

[2 marks]

End of Section A

Section B The living world

Answer **all** questions in this section.

The Living World

2. Study **Figure 5**, a world map showing global ecosystems.

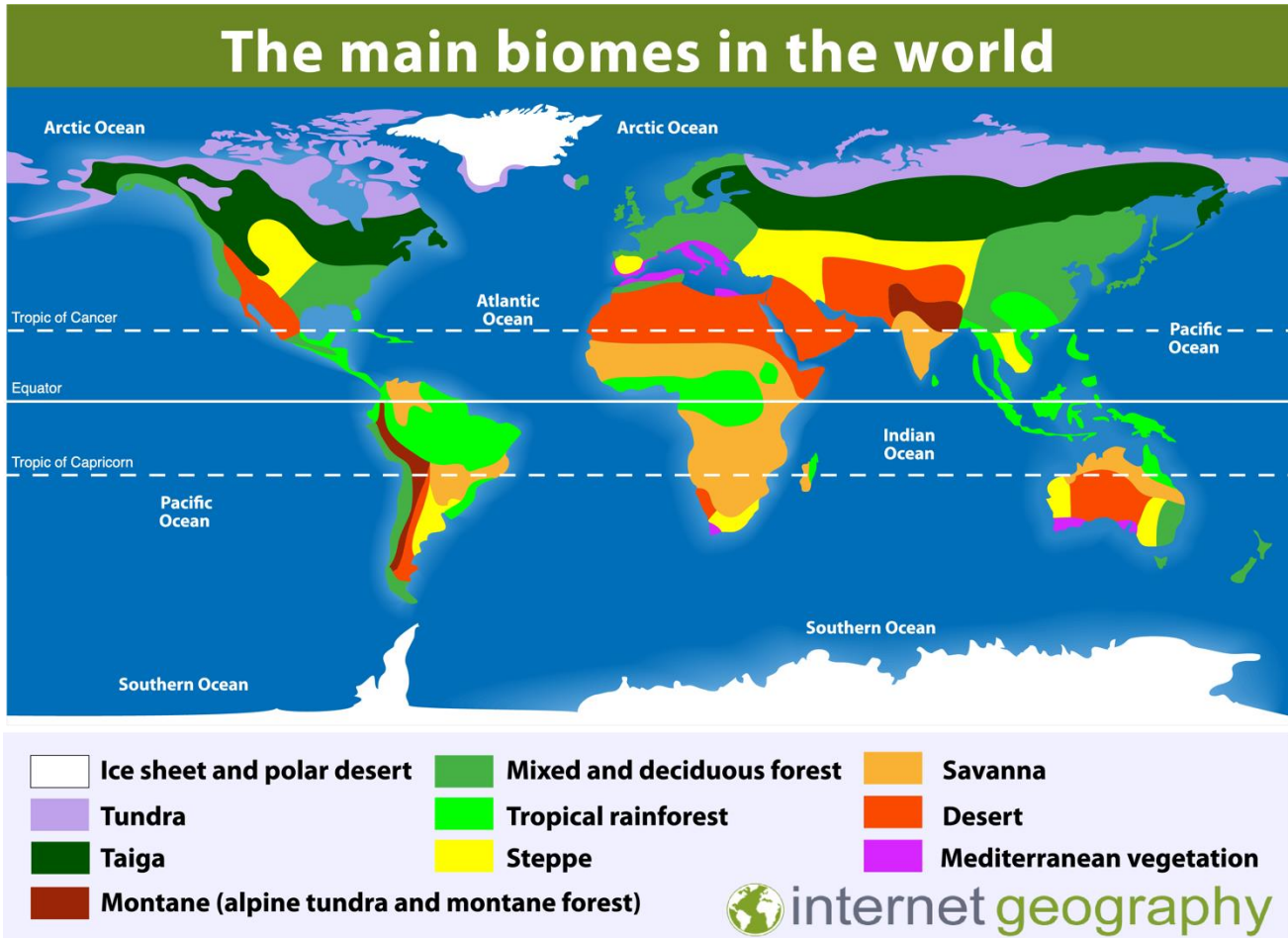


Figure 5

02.1

Using **figure 5**, which one of the following statements is true?

- A** Hot desert is mainly found in the southern hemisphere.
- B** Tundra is mainly found in the southern hemisphere.
- C** Tropical rainforests are mainly located along and close to the equator.
- D** Hot desert is mainly located along and close to the equator.

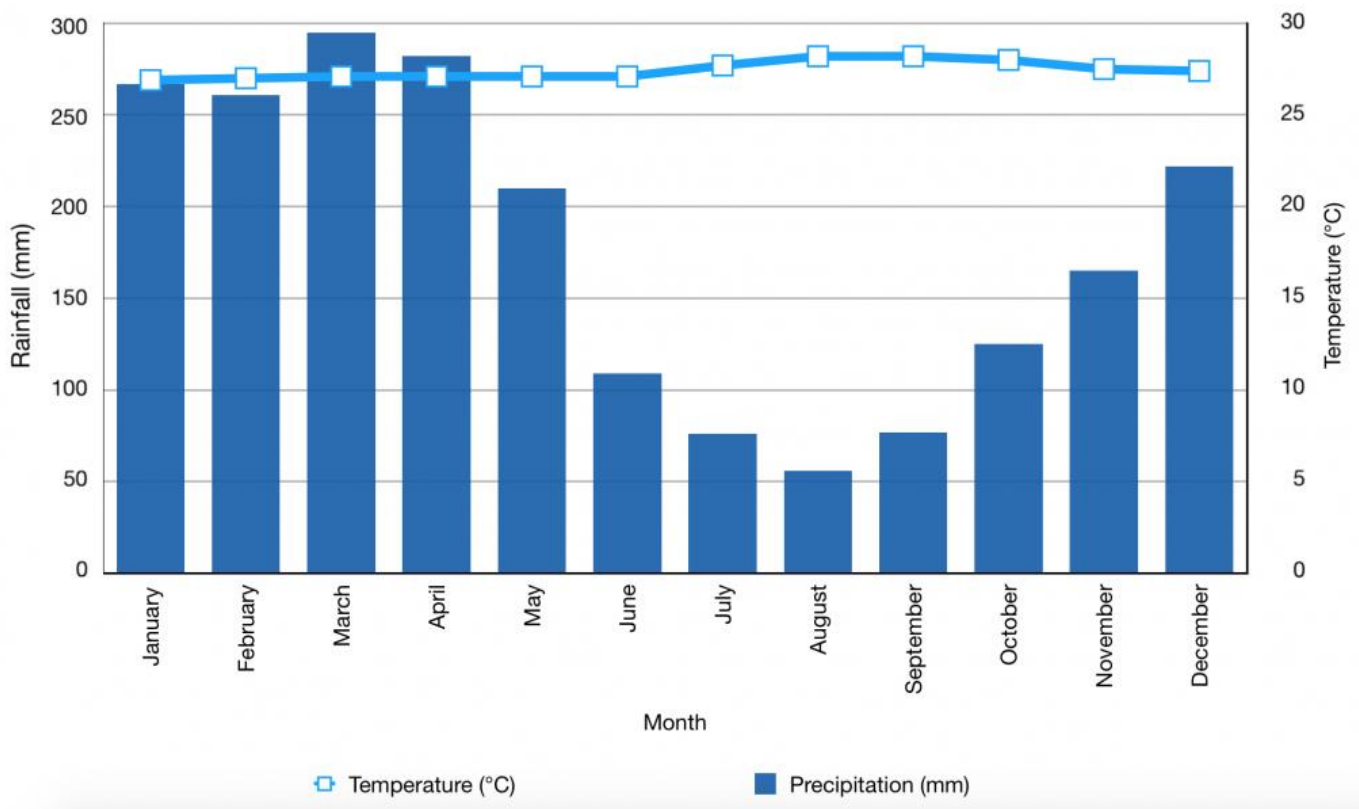
[1 mark]

02.2

Describe the distribution of tropical rainforests shown on **figure 5**.

[2 marks]

Study figure 6, a climate graph for one global ecosystem.



02.3

Which global ecosystem is most likely to have the temperature and precipitation pattern shown in **Figure 6**?

Shade **one** circle only.

- A hot desert
- B tundra
- C savannah
- D tropical rainforest

[1 mark]

02.4

State the maximum precipitation shown in **Figure 6**.

Shade **one** circle only.

- A 275mm
- B 285mm
- C 295mm
- D 305mm

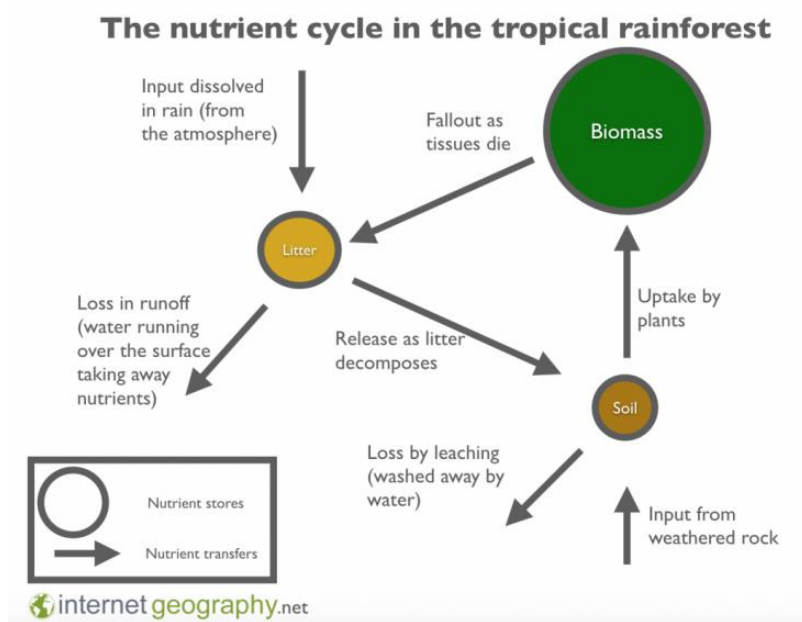
[1 mark]

02.5

Give **one** reason why rainforests have high temperatures throughout the year.

[1 mark]

Study figure 7, a diagram showing the rainforest nutrient cycle.



02.6

Explain why the nutrient cycle is so efficient in the tropical rainforest.

[6 marks]

02.6

Identify two reasons for deforestation in the tropical rainforest biome.

Reason 1: _____

Reason 2: _____

[2 marks]

02.7

Explain an environmental impact of deforestation in the tropical rainforest.

[2 marks]

Question 2 continues on the next page

02.8

Choose one of the following environments.

Hot desert environment

Cold environment

Tick the box to show which environment you have chosen.

Using a case study, to what extent have challenges for economic activity been overcome in your chosen environment?

[9 marks]

Extra space

25

End of Section B

Section C Physical landscapes in the UK

Answer **two** questions from the following:

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

Coastal landscapes in the UK

3. Study **Figure 8**, a 1:25 000 Ordnance Survey map of Flamborough.



Figure 1

03.1

Using **Figure 8**, give the four-figure grid reference for a wave cut platform. Shade **one** circle only.

- A 2371.
- B 2570
- C 2470
- D 2171

[1 mark]

03.2

Using **Figure 8**, which of the following coastal features is **not** shown in grid square 2570?

Shade **one** circle only.

- A A rocky wave-cut platform
- B A cave
- C A beach
- D A coastal spit

[1 mark]

03.3

Using **figure 8**, give the six-figure grid reference of the public toilets at Flamborough Head.

Shade **one** circle only.

- A 266706
- B 256706
- C 246716
- D 251707

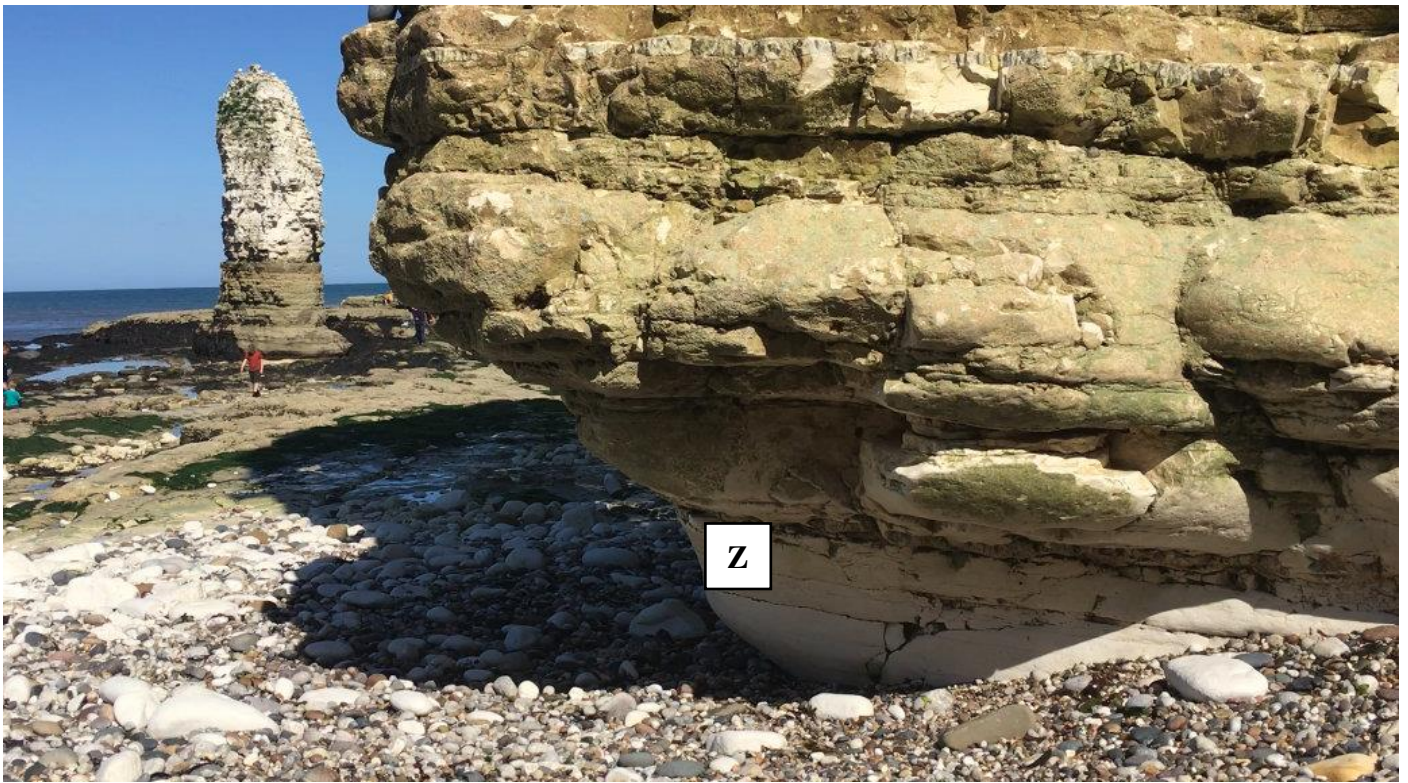
[1 mark]

03.4

Using **Figure 8**, suggest **one** reason why this coastline has suitable conditions for the formation of erosional landforms such as arches, stacks and stumps.

[1 mark]

Study **Figure 9**, a photograph of part of the coastline shown in **Figure 8**.



03.5

Using **Figure 9**, identify the landform marked Z.

[1 mark]

03.6

Explain the formation of a wave-cut platform.

[4 marks]

03.7

'Coastal management schemes move the problem of erosion from location to another'

Do you agree?

Using an example, explain your answer.

[6 marks]

Extra space

End of Question 3

15

Question 4 River landscapes in the UK

4. Study **figure 10**, a 1:50 000 Ordnance Survey map of the River Tees.

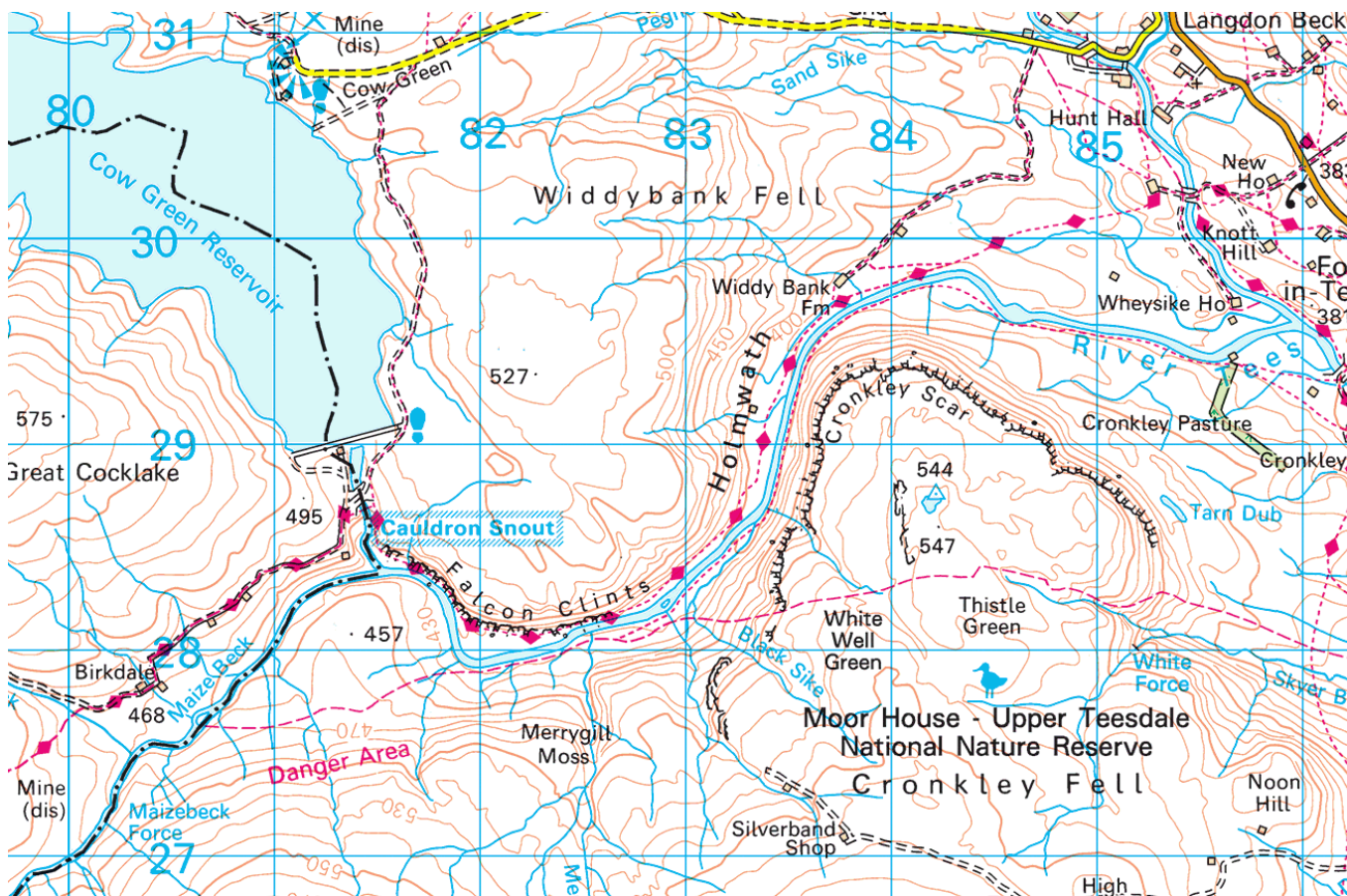


Figure 10

04.1

Using **figure 10**, give the four-figure grid reference for the confluence between Maize Beck and the River Tees. Shade **one** circle only.

- A 8329
- B 8128
- C 8529
- D 8227

[1 mark]

04.2

Using **figure 10**, which of the following statements best describes the features of 8127? Shade **one** circle only.

- A A river valley that starts with a relatively gentle slope in the north, which becomes steeper to the south, rising to 550 metres in the south west.
- B A gently sloping river valley with a small tributary entering from the south.
- C A south facing slope with a stream and small tributary flowing through woodland.
- D A wide flat river valley, with sides that rise to a maximum height of 470m.

[1 mark]

04.3

Suggest one way the lower course of the River Tees may be different from that shown in **figure 10**.

[1 mark]

Study figure 11, a photograph of the River Tees at Cauldron Snout.



04.4

Using figures 10 and 11, what direction was the photographer facing?

[1 mark]

04.5

Describe one feature of the River Tees in **figure 11**.

[1 mark]

04.6

Explain the formation of a waterfall.

[4 marks]

Question 4 continues on the next page

04.7

'The causes of river flooding are usually the result of **natural** factors.'

Do you agree with this statement?

Explain your answer.

[6 marks]

Extra space

End of Question 4

<hr/> 15

Glacial landscapes in the UK

1. Study **Figure 12**, a 1:50 000 Ordnance Survey map of part of the Lake District.

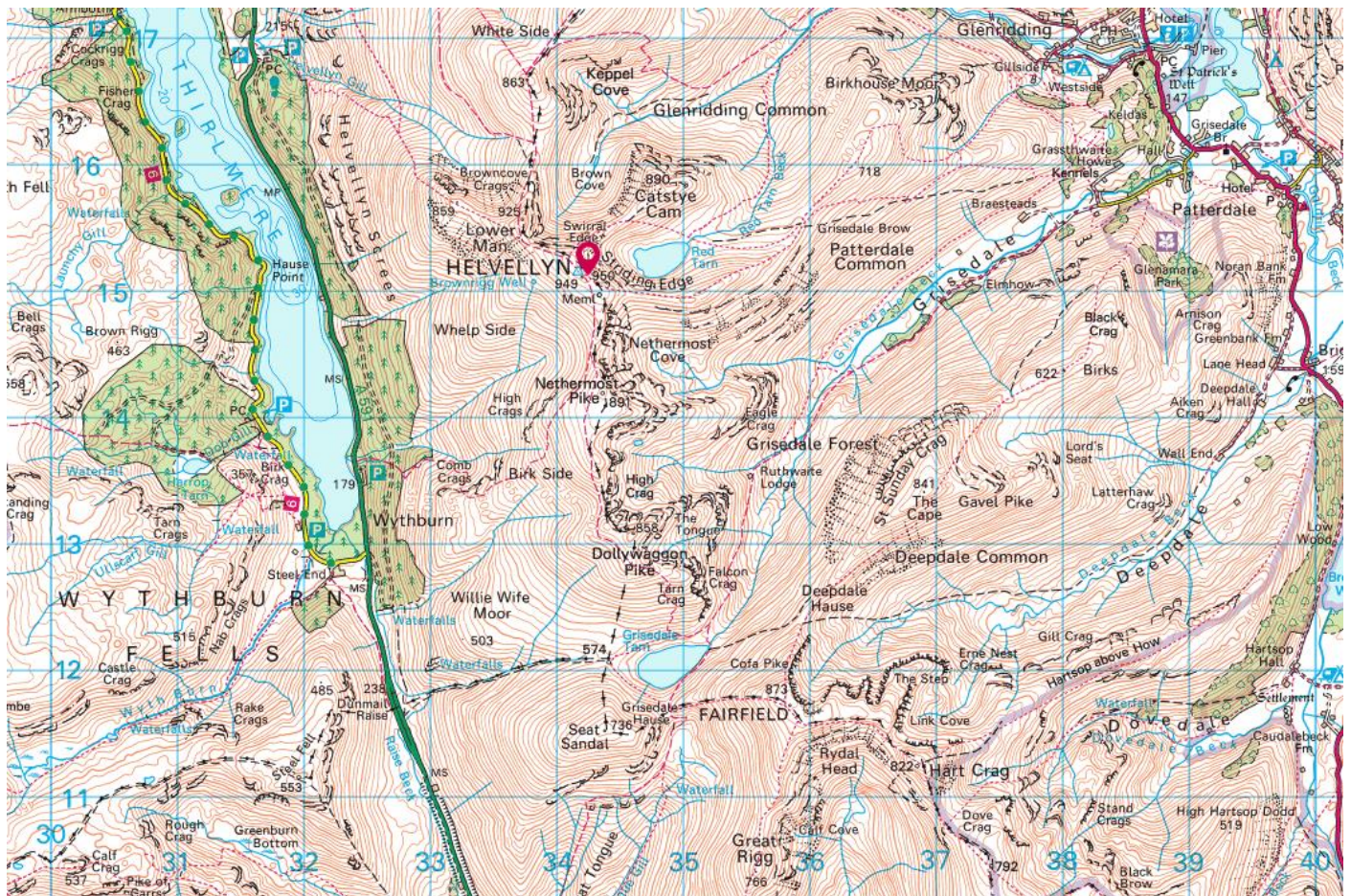


Figure 12

05.1

Using **Figure 12**, Identify the glacial landform at grid reference 347149. Shade one circle only.

- A Tarn
- B Pyramidal peak
- C Arete
- D Glacial trough

[1 mark]

05.2

Identify the grid square containing a tarn. Shade one circle only.

- A 3415
- B 3214
- C 3614
- D 3414

[1 mark]

05.3

Using **figure 12**, describe one feature of the glacial valley containing Grisedale Beck.

[1 mark]

Study **figure 13**, a photograph taken from Striding Edge at 345149



05.4

Using **figures 12** and **13**, what direction was the photographer facing?

[1 mark]

05.5

Suggest one reason for the shape of the land in **figure 13**.

[1 mark]

05.6

Explain the formation of a corrie.

[4 marks]

Question 5 continues on the next page

05.7

The increasing number of people holidaying in glaciated upland areas in the UK can only bring disadvantages.

Do you agree?

Use an example to explain your answer

[6 marks]

Extra space

END OF QUESTIONS

<hr/>
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