



CAMBRIDGE

OCR

GCSE (9–1) Geography B (Geography for Enquiring Minds)

J384/01 Our Natural World

Version 1.7

Sample Question Paper

Accredited

Date – Morning/Afternoon

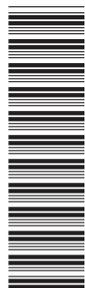
Time allowed: 1 hour 30 minutes

You must have:

- the Resource Booklet (inside this document)

You may use:

- a ruler (cm/mm)
- a scientific or graphical calculator



Please write clearly in black ink. **Do not write in the barcodes.**

Centre number

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Candidate number

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First name(s) _____

Last name _____

INSTRUCTIONS

- Use black ink. You may use an HB pencil for graphs and diagrams.
- Write your answer to each question in the space provided. If you need extra space use the lined pages at the end of this booklet. The question number(s) must be clearly shown.
- Answer **all** the questions.
- Where appropriate, your answer should be supported with working. Marks might be given for using a correct method, even if your answer is wrong.

INFORMATION

- The total mark for this paper is **70**.
- The marks for each question are shown in brackets [].
- Quality of extended responses will be assessed in questions marked with an asterisk (*).
- Spelling, punctuation and grammar and the use of specialist terminology (SPaG) will be assessed in questions marked with a pencil (✎).
- This document consists of **16** pages.

ADVICE

- Read each question carefully before you start.

Section A

Global Hazards

1

(a) Describe what a hot spot is.

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[2]

Look at **Figure 1** in the Resource Booklet.

(b) Describe the pattern of earthquake distribution.

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[4]

Look at the table below, showing the total and average number of tropical storms in the USA (1851–2013).

Month	Total number of tropical storms	Average number of tropical storms
January	2	-
February	1	-
March	1	-
April	1	-
May	20	0.1
June	86	0.5
July	116	0.7
August	373	2.3
September	564	3.5
October	332	2.0
November	88	0.5
December	17	0.1

(c) Select the most suitable graphical technique for presenting the total number of tropical storms column.

- A Bar graph
- B Climate graph
- C Cross-section
- D Rose chart

Write the correct letter in the box.

[1]

Changing Climate

2 Students were studying monthly temperature data to identify long term climate change.

(a) Which average is best for them to use?

- A Mean
- B Median
- C Modal class
- D Mode

Write the correct letter in the box.

[1]

(b) Compare the reliability of **two** sources of evidence of climate change.

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[4]

Distinctive Landscapes

3

(a) Look at **Figure 2** in the Resource Booklet.

(i) The straight line distance between Mupe Rocks (8479) and Worbarrow Tout (8679) is:

- A** 1600m
- B** 2000m
- C** 2400m
- D** 2800m

Write the correct letter in the box.

[1]

(ii) The four-figure grid reference for the museum in Tyneham is:

- A** 8582
- B** 8781
- C** 8880
- D** 8979

Write the correct letter in the box.

[1]

Look at **Figure 2** in the Resource Booklet.

Geographical Information Systems (GIS) can show many different kinds of data on one map, with each kind of data representing a new 'layer' of the map.

(b) Suggest **one** extra layer which could be added to the OS map extract in **Figure 2** making it more informative for a group of geography students using the area for a coastal study.

Give a reason for your answer.

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[2]

Sustaining Ecosystems

4 Look at **Figure 3** in the Resource Booklet.

(a) Describe the yearly temperature and rainfall patterns on the hot desert climate graph.

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[2]

(a) Which **two** statements best explain why the nutrient cycle of tropical rainforests is rapid?

- 1 Heavy rainfall washes away dead plant material
- 2 Nutrients are in high demand from the fast-growing plants
- 3 The forest floor conditions allow for quick decomposition of dead plant material
- 4 There is great biodiversity in tropical rainforests

- A** 1 and 2
- B** 1 and 4
- C** 2 and 3
- D** 3 and 4

Write the correct letter in the box.

[1]

(b) Describe how tropical rainforests provide valuable services.

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[4]

CASE STUDY

A small scale example of sustainable management in either the Arctic or Antarctic

(c) Evaluate the success of **one** small scale example of sustainable management in either the Arctic or Antarctic.

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[6]

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Section B

Physical Geography Fieldwork

5 Look at **Figure 4** in the Resource Booklet.

(a) State **two** ways this photograph could be used effectively in the data presentation section of the student’s fieldwork investigation.

- 1
-
- 2
-

[2]

(b) The table below shows part of a data collection sheet from a fieldwork investigation.

Site Number:	Seven										
Stream width:	13.7 metres										
Stream depth (recorded every metre):											
0.16m	0.17m	0.18m	0.23m	0.29m	0.31m	0.28m	0.26m	0.23m	0.23m	0.19m	0.18m
Pebble size (sample of six pebbles):											
90mm	45mm	40mm	38mm	45mm	36mm						

(i) Using the table above, calculate the **range** of the pebble size.

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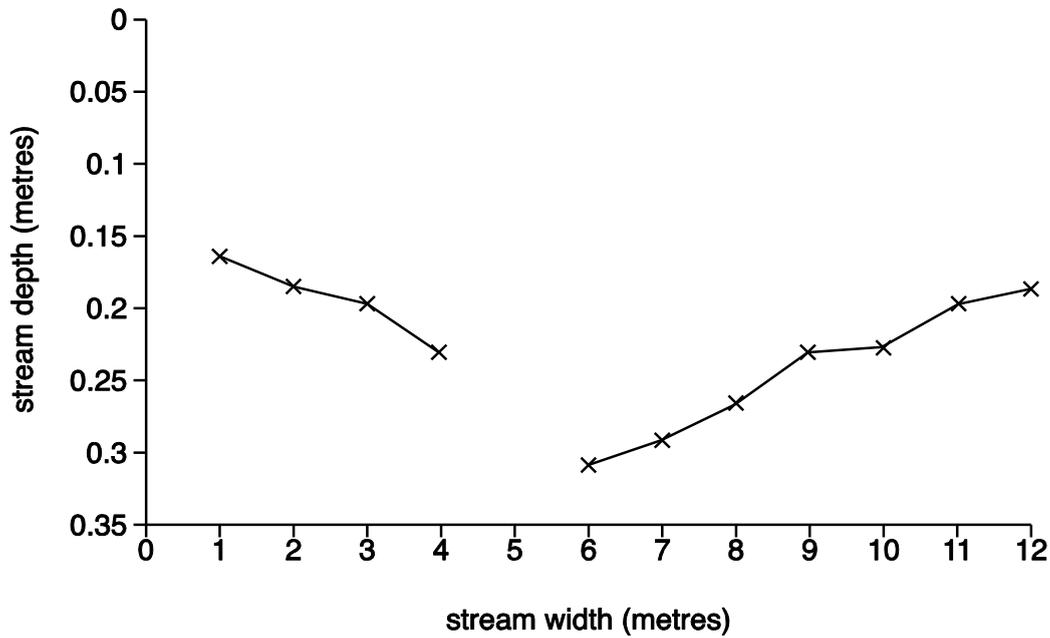
[1]

(ii) Using the table above, calculate the **mode** of the stream depth.

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[1]

(iii) **Complete** the cross section below using information from the data collection sheet.



[1]

(c) For a physical geography fieldwork investigation which you have completed, evaluate **one** technique you used to collect data.

Technique used:

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[2]

Summary of updates

Date	Version	Details
January 2024	1.5	Updated as part of accessibility improvements.
June 2025	1.6	Updated duration of question paper
December 2025	1.7	Insertion of additional instruction to candidates on front cover.

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CAMBRIDGE

OCR

...day June 20XX – Morning/Afternoon

GCSE (9–1) Geography B (Geography for Enquiring Minds)

J384/01 Our Natural World

SAMPLE MARK SCHEME

Duration: 1 hour 30 minutes

MAXIMUM MARK 70

This document consists of 23 pages

MARKING INSTRUCTIONS**PREPARATION FOR MARKING****RM ASSESSOR**

1. Make sure that you have accessed and completed the relevant training packages for on-screen marking: *RM Assessor Online Training: OCR Essential Guide to Marking*.
2. Make sure that you have read and understood the mark scheme and the question paper for this unit. These are available in RM Assessor
3. Log-in to RM Assessor and mark the **required number** of practice responses (“scripts”) and the **required number** of standardisation responses.

MARKING

1. Mark strictly to the mark scheme.
2. Marks awarded must relate directly to the marking criteria.
3. The schedule of dates is very important. It is essential that you meet the RM Assessor 50% and 100% (traditional 40% Batch 1 and 100% Batch 2) deadlines. If you experience problems, you must contact your Team Leader (Supervisor) without delay.
4. If you are in any doubt about applying the mark scheme, consult your Team Leader by telephone, email or via the RM Assessor messaging system.

5. Crossed-Out Responses

Where a candidate has crossed out a response and provided a clear alternative then the crossed-out response is not marked. Where no alternative response has been provided, examiners may give candidates the benefit of the doubt and mark the crossed-out response where legible.

Rubric Error Responses – Optional Questions

Where candidates have a choice of question across a whole paper or a whole section and have provided more answers than required, then all responses are marked and the highest mark allowable within the rubric is given. Enter a mark for each question answered into RM Assessor, which will select the highest mark from those awarded. *(The underlying assumption is that the candidate has penalised themselves by attempting more questions than necessary in the time allowed.)*

Multiple-Choice Question Responses

When a multiple-choice question has only a single, correct response and a candidate provides two responses (even if one of these responses is correct), then no mark should be awarded (as it is not possible to determine which was the first response selected by the candidate).

When a question requires candidates to select more than one option/multiple options, then local marking arrangements need to ensure consistency of approach.

Contradictory Responses

When a candidate provides contradictory responses, then no mark should be awarded, even if one of the answers is correct.

Short Answer Questions (requiring only a list by way of a response, usually worth only one mark per response)

Where candidates are required to provide a set number of short answer responses then only the set number of responses should be marked. The response space should be marked from left to right on each line and then line by line until the required number of responses have been considered. The remaining responses should not then be marked. Examiners will have to apply judgement as to whether a

'second response' on a line is a development of the 'first response', rather than a separate, discrete response. *(The underlying assumption is that the candidate is attempting to hedge their bets and therefore getting undue benefit rather than engaging with the question and giving the most relevant/correct responses.)*

Short Answer Questions (requiring a more developed response, worth two or more marks)

If the candidates are required to provide a description of, say, three items or factors and four items or factors are provided, then mark on a similar basis – that is downwards (as it is unlikely in this situation that a candidate will provide more than one response in each section of the response space).

Longer Answer Questions (requiring a developed response)

Where candidates have provided two (or more) responses to a medium or high tariff question which only required a single (developed) response and not crossed out the first response, then only the first response should be marked. Examiners will need to apply professional judgement as to whether the second (or a subsequent) response is a 'new start' or simply a poorly expressed continuation of the first response.

6. Always check the pages (and additional objects if present) at the end of the response in case any answers have been continued there. If the candidate has continued an answer there, then add the annotation 'SEEN' to confirm that the work has been seen and mark any responses using the annotations in section 11.
7. There is a NR (**No Response**) option. Award NR (No Response):
 - if there is nothing written at all in the answer space
 - OR if there is a comment which does not in any way relate to the question (e.g., 'can't do', 'don't know')
 - OR if there is a mark (e.g., a dash, a question mark) which is not an attempt at the question.

Note: Award 0 marks – for an attempt that earns no credit (including copying out the question).

8. The RM Assessor **comments box** is used by your Team Leader to explain the marking of the practice responses. Please refer to these comments when checking your practice responses. **Do not use the comments box for any other reason.**
9. Assistant Examiners will send a brief report on the performance of candidates to their Team Leader (Supervisor) via email by the end of the marking period. The report should contain notes on particular strengths displayed as well as common errors or weaknesses. Constructive criticism of the question paper/mark scheme is also appreciated.
10. For answers marked by levels of response: Not applicable in F501
To determine the level – start at the highest level and work down until you reach the level that matches the answer
To determine the mark within the level, consider the following

Descriptor	Award mark
On the borderline of this level and the one below	At bottom of level
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
Consistently meets the criteria for this level	At top of level

11. Annotations

Annotation	Meaning

12. Subject-specific Marking Instructions

INTRODUCTION

Your first task as an Examiner is to become thoroughly familiar with the material on which the examination depends. This material includes:

- the specification, especially the assessment objectives
- the question paper and its rubrics
- the mark scheme.

You should ensure that you have copies of these materials.

You should ensure also that you are familiar with the administrative procedures related to the marking process. These are set out in the OCR booklet **Instructions for Examiners**. If you are examining for the first time, please read carefully **Appendix 5 Introduction to Script Marking: Notes for New Examiners**.

Please ask for help or guidance whenever you need it. Your first point of contact is your Team Leader.

USING THE MARK SCHEME

Please study this Mark Scheme carefully. The Mark Scheme is an integral part of the process that begins with the setting of the question paper and ends with the awarding of grades. Question papers and Mark Schemes are developed in association with each other so that issues of differentiation and positive achievement can be addressed from the very start.

This Mark Scheme is a working document; it is not exhaustive; it does not provide 'correct' answers. The Mark Scheme can only provide 'best guesses' about how the question will work out, and it is subject to revision after we have looked at a wide range of scripts.

The Examiners' Standardisation Meeting will ensure that the Mark Scheme covers the range of candidates' responses to the questions, and that all Examiners understand and apply the Mark Scheme in the same way. The Mark Scheme will be discussed and amended at the meeting, and administrative procedures will be confirmed. Co-ordination scripts will be issued at the meeting to exemplify aspects of candidates' responses and achievements; the co-ordination scripts then become part of this Mark Scheme.

Before the Standardisation Meeting, you should read and mark in pencil a number of scripts, in order to gain an impression of the range of responses and achievement that may be expected.

In your marking, you will encounter valid responses which are not covered by the Mark Scheme: these responses must be credited. You will encounter answers which fall outside the 'target range' of Bands for the paper which you are marking. Please mark these answers according to the marking criteria.

Please read carefully all the scripts in your allocation and make every effort to look positively for achievement throughout the ability range. Always be prepared to use the full range of marks.

LEVELS OF RESPONSE QUESTIONS:

The indicative content indicates the expected parameters for candidates' answers, but be prepared to recognise and credit unexpected approaches where they show relevance.

Using 'best-fit', decide first which set of level descriptors best describes the overall quality of the answer. Once the level is located, adjust the mark concentrating on features of the answer which make it stronger or weaker following the guidelines for refinement.

Highest mark: If clear evidence of all the qualities in the level descriptors is shown, the HIGHEST Mark should be awarded.

Lowest mark: If the answer shows the candidate to be borderline (i.e. they have achieved all the qualities of the levels below and show limited evidence of meeting the criteria of the level in question) the LOWEST mark should be awarded.

Middle mark: This mark should be used for candidates who are secure in the level. They are not 'borderline' but they have only achieved some of the qualities in the level descriptors.

Be prepared to use the full range of marks. Do not reserve (e.g.) highest level marks 'in case' something turns up of a quality you have not yet seen. If an answer gives clear evidence of the qualities described in the level descriptors, reward appropriately.

	AO1	AO2	AO3
Comprehensive	A range of detailed and accurate knowledge that is fully relevant to the question.	A range of detailed and accurate understanding that is fully relevant to the question.	Detailed and accurate interpretation through the application of relevant knowledge and understanding. Detailed and accurate analysis through the application of relevant knowledge and understanding. Detailed and substantiated evaluation through the application of relevant knowledge and understanding. Detailed and substantiated judgement through the application of relevant knowledge and understanding.
Thorough	A range of accurate knowledge that is relevant to the question.	A range of accurate understanding that is relevant to the question.	Accurate interpretation through the application of relevant knowledge and understanding. Accurate analysis through the application of relevant knowledge and understanding. Supported evaluation through the application of relevant knowledge and understanding. Supported judgement through the application of relevant knowledge and understanding.
Reasonable	Some knowledge that is relevant to the question.	Some understanding that is relevant to the question.	Some accuracy in interpretation through the application of some relevant knowledge and understanding. Some accuracy in analysis through the application of some relevant knowledge and understanding. Partially supported evaluation through the application of some relevant knowledge and understanding. Partially supported judgement through the application of some relevant knowledge and understanding.
Basic	Limited knowledge that is relevant to the topic or question.	Limited understanding that is relevant to the topic or question.	Limited accuracy in interpretation through lack of application of relevant knowledge and understanding. Limited accuracy in analysis through lack of application of relevant knowledge and understanding. Un-supported evaluation through lack of application of knowledge and understanding. Un-supported judgement through lack of application of knowledge and understanding.

Question		Answer	Marks	Guidance
1	(a)	A small area of the earth's crust where unusually high heat flow (✓) is linked to volcanic activity (✓)	2	2 x 1 (✓)
	(b)	The majority of earthquakes occur at plate boundaries (✓) with a particularly large number of earthquakes along the western edge of the Pacific Plate (✓) including three of the largest earthquakes which registered over 6.02 in magnitude (DEV) occurring here (COM)	4	2 x 1 (✓) for describing the pattern of earthquake distribution 1 x 1 (DEV) for using data from the map 1 x 1 (COM) for communicating the answer in an appropriate and logical order
	(c)	A: Bar graph (✓)	1	(✓)
	(d)	<p>Level 3 (5–6 marks) An answer at this level demonstrates thorough understanding of extreme weather conditions in contrasting countries (AO2) and thorough analysis of the differences in extreme weather conditions in contrasting countries (AO3).</p> <p>This will be shown by including well-developed ideas both about extreme weather conditions and the differences in extreme weather conditions in contrasting countries.</p> <p>Level 2 (3–4 marks) An answer at this level demonstrates reasonable understanding of extreme weather conditions in contrasting countries (AO2) and reasonable analysis of the differences in extreme weather conditions in contrasting countries (AO3).</p> <p>This will be shown by including developed ideas about either extreme weather conditions or the</p>	6	<p>Indicative content Extremes in weather conditions most likely to be discussed are temperature, wind and precipitation.</p> <p>The differences in extreme weather conditions could include contrasts between the countries, but may also focus on differences between extremes and averages within the countries.</p> <p>Examples can be drawn from any countries but at least two should be discussed and they must be contrasting in terms of their extreme weather conditions.</p> <p>Examples of well-developed ideas: England and Australia have very different extremes in temperature when compared to each other but not necessarily as a difference from their own average temperatures. Average summer temperatures in England are around 20°C, with 30°C being considered extreme. This 10°C difference is mirrored in Australia with average summer temperatures being around 30°C and extremes at 40°C. So the differences in the extremes in temperature are very similar.</p>

Question	Answer	Marks	Guidance
	<p>differences in extreme weather conditions in contrasting countries.</p> <p>Level 1 (1–2 marks) An answer at this level demonstrates basic understanding of extreme weather conditions in contrasting countries (AO2) and basic analysis of the differences in extreme weather conditions in contrasting countries (AO3).</p> <p>This will be shown by including simple ideas about extreme weather conditions or the differences in extreme weather conditions in contrasting countries. No developed points are made.</p> <p>0 marks No response or no response worthy of credit.</p>		<p>Examples of developed ideas: Extreme temperatures in Australia are much higher than in England, with average summer temperatures in Australia being very similar to very hot weather in England which could be considered extreme.</p> <p>Examples of simple ideas: The extreme temperatures in Australia are much hotter than in England.</p> <p>Australia is much hotter than England especially in the summer.</p>

Question		Answer	Marks	Guidance
2	(a)	A: Mean (✓)	1	(✓)
	(b)	<p>Historical records (✓) and ice cores (✓) are two sources of evidence of climate change. Historical records may be less reliable than ice cores as they are handwritten or drawn based on one person's interpretation (DEV) without the use of modern thermometers (DEV)</p> <p>Other possible data/evidence: Sea ice positions (✓) Global temperature change (✓) Paintings (✓) Diaries (✓)</p>	4	<p>Answer given will depend on type of data/evidence for climate change chosen</p> <p>2 x 1 (✓) reserved for types of data/evidence for climate change</p> <p>2 x 1 (DEV) for comparing the reliability of data i.e. glacial/interglacial cycles = natural process, need a range of data to support, level of glacial retreat, ice sheet depletion, global temperature variances</p> <p>Comparison must be related to reliability</p>
	(c)	<p>Level 3 (6–8 marks) An answer at this level demonstrates thorough understanding of the social and environmental impacts of climate change experienced in the UK in the 21st century (AO2) and thorough analysis of whether the social impacts are greater than the environmental impacts (AO3).</p> <p>This will be shown by including well-developed ideas about the social and environmental impacts of climate change experienced in the UK in the 21st century and which are greater.</p> <p>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</p> <p>Level 2 (3–4 marks) An answer at this level demonstrates reasonable understanding of the social and environmental</p>	8	<p>Indicative content</p> <p>Social impacts could include: Tourist industry boom as more people holiday at home due to warmer weather in the UK Farmers can grow different varieties of crops such as grapes as the UK experiences warmer weather Decrease in cold related deaths over winter Increased pressure on the NHS from patients developing heat related illnesses. Increased flooding leading to homelessness, deaths, anxiety, depression Extreme weather events causing damage to homes, drought, water shortages, dehydration, hose pipe bans and loss of communications Effects on farming impacting livelihoods, price of goods and availability of products and food security. Effects on fishing impacting livelihoods, price of goods</p>

Question	Answer	Marks	Guidance
	<p>impacts of climate change experienced in the UK in the 21st century (AO2) and reasonable analysis of whether the social impacts are greater than the environmental impacts (AO3).</p> <p>This will be shown by including developed ideas about the social and environmental impacts of climate change experienced in the UK in the 21st century and which are greater.</p> <p>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</p> <p>Level 1 (1–2 marks) An answer at this level demonstrates basic understanding of the social and environmental impacts of climate change experienced in the UK in the 21st century (AO2) and basic analysis of whether the social impacts are greater than the environmental impacts (AO3).</p> <p>This will be shown by including simple ideas about the social and environmental impacts of climate change experienced in the UK in the 21st century and which are greater. No developed points are made.</p> <p>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</p> <p>0 marks No response or no response worthy of credit.</p>		<p>Environmental impacts could include: For UK wildlife warmer temperatures could increase survival rates for offspring born in winter Habitats may come under increasing pressure including salt marsh threatened by sea-level rise to beech woodland susceptible to summer droughts Increased extreme storm and flood events Encroachment of sea through rising sea levels Accelerated coastal erosion Extremes in weather conditions (higher summer temperatures, heat waves, higher average winter precipitation, decrease in summer precipitation)</p> <p>Examples of well-developed ideas: The social impacts of climate change experienced in the UK in the 21st century have mainly been a consequence of environmental impacts and so could be considered greater. More precipitation in the winter and more chance of extreme storm conditions at all times bring an increased risk of flooding. This would mean people may become isolated from amenities and unable to get food supplies or to their place of work or even have to leave their homes or be rescued. As social impacts exacerbate to the environmental ones, they increase the impact felt and so can be considered greater.</p> <p>Examples of developed ideas: Most of the social impacts experienced in the UK make the environmental impacts worse. There are more extreme storms and this can lead to more flooding as there is more precipitation. When it floods then people cannot get to work, school or do the shopping and some even have to move out of their homes. This is worse than just flooding happening and so it is a greater impact.</p> <p>Examples of simple ideas: Social impacts mostly happen after an environmental impact and make them worse, like when people have to leave their homes after a flood.</p>

Question			Answer	Marks	Guidance
3	(a)	(i)	C: 2400	1	(✓)
		(ii)	C: 8880	1	(✓)
	(b)		<p>Possible suggestions:</p> <p>Geology (✓) so they can plan which sites to visit depending on their fieldwork title (DEV)</p> <p>Youth hostels/accommodation (✓) so they can plan a route for fieldwork investigations starting from their accommodation (DEV)</p> <p>Public transport information (✓) so they can plan travel to and from the area (DEV)</p> <p>Coastal management zones/techniques (✓) so they can decide which section of the coastline to sample (DEV)</p>	2	<p>1 x 1 (✓) for layer suggested 1 x 1 (DEV) for reason</p> <p>Do not accept symbols already used on the map</p>
	(c)		<p>Waves attack vertical lines of weakness in the headland until a crack forms by hydraulic action (✓)</p> <p>The crack continues to expand until it becomes a cave (✓)</p> <p>The rock continues to erode until the cave breaks through the headland to form an arch (✓)</p>	3	<p>3 x 1 (✓) for each valid explanation of the stages in the formation of an arch</p> <p>No DEV required</p>
	(d)		<p>Case study: river basin in the UK</p> <p>Level 3 (5–6 marks) An answer at this level demonstrates a thorough knowledge of geomorphic processes (AO1) and a thorough understanding of how human activity has influenced the geomorphic processes (AO2).</p> <p>This will be shown by including well-developed ideas both about the geomorphic processes and how human activity has influenced the geomorphic processes.</p>	6	<p>Case study will be marked using 3 levels:</p> <p>Case study: responses will depend on candidate's area of study.</p> <p>Indicative content Management strategies could include: Flood barriers/dams – silting up, restriction of sediment replenishment (dev) River realigning/straightening – restriction of meanders/horizontal) lateral erosion Channelisation- impact of erosion, decreased bedload, deposition, throughflow.</p>

Question	Answer	Marks	Guidance
	<p>The answer must also include place-specific details for the landscape. Amount of relevant place-specific detail determines credit within level.</p> <p>Level 2 (3–4 marks) An answer at this level demonstrates reasonable knowledge of geomorphic processes (AO1) and reasonable understanding of how human activity has influenced the geomorphic processes (AO2).</p> <p>This will be shown by including developed ideas either about the geomorphic processes or how human activity has influenced the geomorphic processes.</p> <p>Developed ideas but no place-specific detail credited up to bottom of level. Valid named example needed for top of level.</p> <p>Level 1 (1–2 marks) An answer at this level demonstrates basic knowledge of geomorphic processes (AO1) and basic understanding of how human activity has influenced the geomorphic processes (AO2).</p> <p>This will be shown by including simple ideas about the geomorphic processes or how human activity has influenced the geomorphic processes. No developed points are made.</p> <p>Simple ideas or appropriate named example only credited at bottom of level.</p> <p>0 marks No response or no response worthy of credit.</p>		<p>Building on flood plains – increased surface runoff, Afforestation/deforestation Artificial Levees/Embankments</p> <p>Examples of well-developed ideas: Humans have straightened rivers and introduced channelisation to increase the discharge of the River Nene in Northampton. These changes alter the velocity of the river and reduce friction. These human activities reduce the amount of lateral and vertical erosion causing the river to not form a meander which would be the natural landscape.</p> <p>Examples of developed ideas: Channel straightening is one way that humans have altered the river Nene landscape in Northampton. They have used concrete to change the route of the river which has caused less erosion and flooding.</p> <p>Examples of simple ideas: One way humans have affected the river is by taking away the bends and making the river straighter.</p>

Question		Answer	Marks	Guidance
4	(a)	The temperature of the hot desert is consistent at the start of the year before increasing steadily to peak in July and August and decreasing again (✓). The rainfall in the hot desert is significantly higher from December through to April and very low between May and November (✓).	2	1 x 1 (✓) for describing the yearly temperature pattern 1 x 1 (✓) for describing the yearly rainfall pattern
	(b)	C: 2 and 3	1	(✓)
	(c)	Reduction of flood risk as trees intercept and slow down rainwater (✓) The rainforest acts as the lungs of the planet through photosynthesis (✓) The rainforest is a natural store of carbon dioxide so it balances atmospheric gases (✓) Soils enable commercial agriculture (✓) Rainforests are popular with tourists due to the flora and fauna (✓) The rainforest ecosystem is a habitat for a huge number of species of animals and vegetation (✓)	4	4 x 1 (✓) for each valid idea No DEV required
	(d)	Case study: a small scale example of sustainable management in either the Arctic or Antarctic Level 3 (5–6 marks) An answer at this level demonstrates thorough knowledge of a small scale sustainable management scheme (AO1) and a thorough evaluation of the success of the example of sustainable management (AO3). This will be shown by including well-developed ideas about the small scale sustainable management scheme and its success. The answer must also include place-specific details for the named management scheme. Amount of	6	Indicative content Case study: either Arctic or Antarctic example Max level 1 = large scale e.g. Earth Summit or Treaty's Examples could include sustainable tourism, conservation, whaling Example of well-developed ideas: Tour operators have an agreed set of rules for tourism for Antarctica, this includes the sustainable tourism management plan. Litter is one thing covered under the plan, and it has to be prevented and removed to maintain the areas ecosystems and natural beauty. This has had a positive impact on both the waste management and the habitats of birds and sea life in Antarctica. The plan has many positive points but also the tours themselves potentially have a number of negative impacts on ecosystems, such as interrupting species breeding routines. To mitigate this tour operators try to advise tourists on where

Question	Answer	Marks	Guidance
	<p>relevant place-specific detail determines credit within level.</p> <p>Level 2 (3–4 marks) An answer at this level demonstrates reasonable knowledge of a small scale sustainable management scheme (AO1) and a reasonable evaluation of the success of the example of sustainable management (AO3).</p> <p>This will be shown by including developed ideas about the small scale sustainable management scheme and its success.</p> <p>Developed ideas but no place-specific detail credited up to bottom of level. Valid named example needed for top of level.</p> <p>Level 1 (1–2 marks) An answer at this level demonstrates basic knowledge of a small scale sustainable management scheme (AO1) and a basic evaluation of the success of the example of sustainable management (AO3).</p> <p>This will be shown by including simple ideas about the small scale sustainable management scheme and its success.</p> <p>Simple ideas or appropriate named example only credited at bottom of level.</p> <p>0 marks No evidence submitted or the response does not address the question.</p>		<p>to position themselves when viewing birds and animals to cause least impact.</p> <p>Example of developed ideas: The Antarctic tour operators have rules to help protect it for example by only allowing a certain number of people to go there and no litter is allowed to be left there. This has meant there are less people destroying the pristine ecosystem and those who do go do as little damage as possible.</p> <p>Example of simple ideas: People have been stopped from going on large ships to holiday in the Antarctic so that there is less damage to it.</p>

Question		Answer	Marks	Guidance
5	(a)	Examples may include: To identify sample sites (✓) To use in conjunction with a GIS map showing sample sites (✓) With annotated labels of the landform (✓) Geolocated to show its position on a map (✓)	2	2 x 1 (✓)
	(b)	(i) 54mm (✓)	1	(✓)
		(ii) 0.23m (✓)	1	(✓)
		(iii) 1 mark for correctly completing the graph with 0.29 point and joining the points on the graph	1	(✓)
	(c)	Expect a wide range of data collection techniques Measuring river depth this technique was limited due to health and safety (✓) where high bankfull discharge meant that we could not sample enough sites (✓) Measuring river depth, this technique was useful in helping us answer our question 'how do rivers change along their course' (✓) where we were able to sample six sites which gave us a good range of sites along the rivers course (✓)	2	2 x 1 (✓) Technique must be related to physical geography No mark awarded for just stating the technique Evaluation may refer to: Limitations and merits of the technique in helping to answer the question for investigation How easy the data collected was to analyse and present Level of ease carrying out the technique at the time/day of collection
	(d*)	Level 3 (6–8 marks) The answer must include a thorough analysis of the fieldwork data (AO3) to come to a thorough conclusion that answers the question (AO3). This will be shown by including well-developed ideas. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.	8	Conclusion: LSD occurs from west to east – supporting evidence from Figs 5, 6 and 7 large fetch = movement of sediment More sediment on the west than east Example of well-developed ideas: From the figures it can be concluded that longshore drift does occur at Sheringham. The raw data in the table illustrates the differences in the sediment levels either side of the groyne which shows more sediment build up on the west side than on the east side. There is a difference

Question	Answer	Marks	Guidance
	<p>Level 2 (3–5 marks)</p> <p>The answer must include reasonable analysis of the fieldwork data (AO3) with reasonable conclusion to help answer the question “Does the process of longshore drift occur at Sheringham?”(AO3).</p> <p>This will be shown by including developed ideas.</p> <p>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</p> <p>Level 1 (1–2 marks)</p> <p>The answer will include basic analysis of the fieldwork data (AO3) to come to a basic conclusion answering the question “Does the process of longshore drift occur at Sheringham (AO3).</p> <p>This will be shown by including simple ideas.</p> <p>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</p> <p>0 marks No response or no response worthy of credit.</p>		<p>of 2.62m of sand built up between the east and west side of the groyne. This indicates longshore drift is occurring and the groyne is working effectively to trap sand and slow the process of longshore drift.</p> <p>Example of developed ideas: The table shows a difference in the amount of sediment on the east and west side of the groyne therefore longshore drift does occur. For example at 12m there is a 0.53m of sand on the east compared to 1.28m on the west. The graph shows an overall greater amount of sand on the west hand side of the groyne, indicating that longshore drift does occur.</p> <p>Example of simple ideas: Longshore drift does occur at Sheringham, you can see this from the graph where there is more sand on one side of the groyne.</p>
	<p> Spelling, punctuation and grammar and the use of specialist terminology (SPaG) are assessed using the separate marking grid in Appendix 1.</p>	3	

APPENDIX 1

Spelling, punctuation and grammar and the use of specialist terminology (SPaG) assessment grid*

<i>High performance 3 marks</i>
<ul style="list-style-type: none"> • Learners spell and punctuate with consistent accuracy • Learners use rules of grammar with effective control of meaning overall • Learners use a wide range of specialist terms as appropriate
<i>Intermediate performance 2 marks</i>
<ul style="list-style-type: none"> • Learners spell and punctuate with considerable accuracy • Learners use rules of grammar with general control of meaning overall • Learners use a good range of specialist terms as appropriate
<i>Threshold performance 1 mark</i>
<ul style="list-style-type: none"> • Learners spell and punctuate with reasonable accuracy • Learners use rules of grammar with some control of meaning and any errors do not significantly hinder overall • Learners use a limited range of specialist terms as appropriate
<i>0 marks</i>
<ul style="list-style-type: none"> • The learner writes nothing • The learner's response does not relate to the question • The learner's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning

Awarding Spelling, Punctuation and Grammar and the use of specialist terminology to scripts with a scribe cover sheet

- a. If a script has a **scribe cover sheet** it is vital to check which boxes are ticked and award as per the instructions and grid below:
- i. Assess the work for SPaG in accordance with the normal marking criteria. The initial assessment must be made as if the candidate had not used a scribe and was eligible for all the SPaG marks.
 - ii. Check the cover sheet to see what has been dictated and therefore what proportion of marks is available to the candidate.
 - iii. Convert the SPaG mark to reflect the correct proportion using the conversion table given below.

SPaG mark awarded	Mark if candidate eligible for one third (e.g. grammar only)	Mark if candidate eligible for two thirds (e.g. grammar and punctuation only)
0	0	0
1	0	1
2	1	1
3	1	2

Word processed scripts

- b. If a script has a **word processor cover sheet** attached to it, the candidate **can** still access SPaG marks unless the cover sheet states that the checking functionality is enabled, in which case no SPaG marks are available.
- c. If you have any queries please contact the OCR Special Requirements Team at srteam@ocr.org.uk

Other

If the script has a **transcript, Oral Language Modifier, Sign Language Interpreter** or a **Practical Assistant cover sheet**, award SPaG as normal.

Assessment Objectives (AO) grid

Question	AO1	AO2	AO3	AO4	Marks	SPaG
1a	2				2	
1b				4	4	
1c				1	1	
1d		3	3		6	
2a				1	1	
2b	2		2		4	
2c		4	4		8	
3ai				1	1	
3aii				1	1	
3b				2	2	
3c		3			3	
3d	3	3			6	
4a				2	2	
4b		1			1	
4c	4				4	
4d	3		3		6	
5a				2	2	
5bi				1	1	
5bii				1	1	
5biii				1	1	
5c			2		2	
5d			8		8	3
Total	14	14	22	17	67	3