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GCSE (9–1) Geography B
(Geography for Enquiring Minds)
J384/01 Our Natural World
Sample Question Paper

Date – Morning/Afternoon

Time allowed: 1 hour 15 minutes

You must have:

- the Resource Booklet

You may use:

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



First name

Last name

**Centre
number**

**Candidate
number**

INSTRUCTIONS

- Use black ink. You may use an HB pencil for graphs and diagrams.
- Complete the boxes above with your name, centre number and candidate number.
- Answer **all** the questions.
- Write your answer to each question in the space provided. If additional space is required, you should use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.
- The separate Resource Booklet will be found inside this document.

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.

Section A

Answer **all** the questions.

Global Hazards

1 (a) Describe what a hot spot is.

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[2]

(b) Study **Fig. 1** in the separate Resource Booklet, a Geographical Information System (GIS) map showing earthquake hazard distribution.

Using data from **Fig.1**, describe the pattern of earthquake distribution.

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[4]

- (c) Study 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

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]

(d) Extreme weather conditions vary in contrasting countries.

Discuss the differences in extreme weather conditions in contrasting countries.
You should develop your ideas fully.

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[6]

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Changing Climate

- 2 (a) Students were studying monthly temperature data to identify long term climate change.

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]

(c*) Assess whether the social impacts of climate change experienced in the UK in the 21st century are greater than the environmental impacts.

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[8]

Distinctive Landscapes

3 Study **Fig. 2** in the separate Resource Booklet, an OS map extract showing part of the South coast of England.

(a) (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]

(b) 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.

Suggest **one** extra layer which could be added to the OS map extract in **Fig. 3** 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]

(c) Explain the stages in the formation of an arch.

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[3]

(d) **CASE STUDY – a river basin in the UK.**

Name of river basin in the UK:

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Explain how human activity has influenced the geomorphic processes in this landscape.

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Sustaining Ecosystems

4 Study **Fig. 3** in the separate Resource Booklet, showing a hot desert climate graph.

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

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[2]

(b) 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]

(c) Describe how tropical rainforests provide valuable services.

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[4]

(d) **CASE STUDY – a small scale example of sustainable management in either the Arctic or Antarctic.**

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

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Section B

Answer **all** the questions

Physical Geography Fieldwork

- 5 (a) Study **Fig. 4** in the separate Resource Booklet, a photograph a student has taken on a fieldtrip.

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

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[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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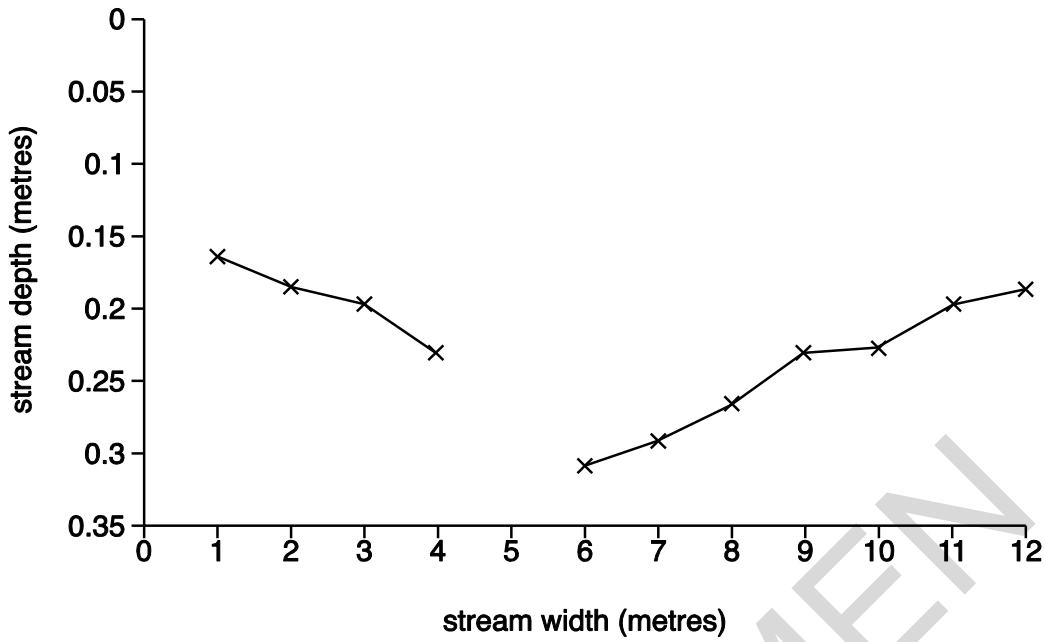
[1]

- (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]

(d*) Figs 5, 6 and 7 in the separate Resource Booklet show information from a GCSE geography student's fieldwork investigation.

Using evidence from Figs 5, 6 and 7, write a conclusion to the question for investigation "Does the process of longshore drift occur at Sheringham?" Develop your answer.

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[8]
 Spelling, punctuation and grammar and the use of specialist terminology **[3]**



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