Oxford Cambridge and RSA

Wednesday 11 November 2020 – Morning

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

J384/01 Our Natural World

Time allowed: 1 hour 15 minutes

You must have:
- the Resource Booklet (inside this document)

You can use:
- a scientific or graphical calculator
- a ruler (cm/mm)

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

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

First name(s) _____

Last name _____

INSTRUCTIONS
- Use black ink. You can use an HB pencil, but only 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 numbers must be clearly shown.
- Answer **all** the questions.

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

ADVICE
- Read each question carefully before you start your answer.

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SECTION A

Answer **all** the questions.

Global Hazards

1 **(a)** Study **Fig. 1** in the separate Resource Booklet, a photograph of a natural weather hazard. Identify the type of natural weather hazard shown in **Fig. 1**.

..... **[1]**

(b) Study **Fig. 2** in the separate Resource Booklet, a hydrograph showing precipitation and discharge of a river.

(i) Identify the peak rainfall amount shown in **Fig. 2**.

A 40 mm

B 42 mm

C 46 mm

D 50 mm

Write the correct letter in the box. ☐ **[1]**

(ii) Give the peak discharge in cumecs from **Fig. 2**.

..... **[1]**

(c) Study **Fig. 3** in the separate Resource Booklet, a map showing the global distribution of earthquakes. Describe the pattern of global earthquake distribution.

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..... **[3]**

(d) Name the process that causes the Earth's tectonic plates to move.

..... **[1]**

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(e) Case Study – a tectonic event

Name of tectonic hazard case study:

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Explain how the tectonic event was responded to.

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..... **[6]**

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Changing Climates

2 **(a)** **(i)** Study **Fig. 4** in the separate Resource Booklet, which shows changes in Arctic sea ice positions over time. Identify the overall trend shown in **Fig. 4**.

A sea ice has decreased

B sea ice has decreased initially and then increased at the end

C sea ice has increased

D sea ice has stayed the same

Write the correct letter in the box. ☐ **[1]**

(ii) Explain how sea ice positions can be used as evidence for climate change.

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..... **[2]**

(b) Give **two** worldwide environmental impacts of climate change.

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2 .....

[2]

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(c)* Analyse the impacts that humans have had on the atmosphere.

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Distinctive Landscapes

3 (a) (i) Select the correct definition of a glaciated landscape.

A contains landforms produced along a river

B contains landforms produced by the movement of ice

C formed by coastal processes

D formed when glaciers join together

Write the correct letter in the box. ☐ **[1]**

(ii) Study **Fig. 5** in the separate Resource Booklet, which shows the maximum extent of ice in the last glacial stage in Britain.

Explain why the south and east of England lack glaciated landscapes.

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..... **[2]**

(iii) The distinctive characteristics of glaciated landscapes make them ideal for human activities like hiking, climbing and skiing. Give **two** reasons why.

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..... **[2]**

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(b) Read the news article below.

DAILY NEWS

LET NATURE TAKE ITS COURSE!

Around 45% of England's coastline has some form of coastal management. Artificially strengthening one piece of coastline can weaken another, creating further erosion in the future. And of course all of this costs millions of pounds every year.

Our coastlines are changing and we should allow natural processes to take over. This would mean some areas of land may be lost to the sea. A more natural coastline is formed. In the long term this type of management is more cost effective and sustainable. The end is in sight for coastal defences.

(i) What is the key message of this article?

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..... **[1]**

(ii) What percentage of England's coastline is not protected by coastal management?

.....% **[1]**

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(c) Case study – UK coastal landscape

Name of UK coastal landscape case study:

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Evaluate the impact of management on your chosen coastal landscape.

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Sustaining Ecosystems

4 **(a)** Identify the correct definition of a hot desert ecosystem.

A a continuous canopy of trees, a cool climate with distinct seasons

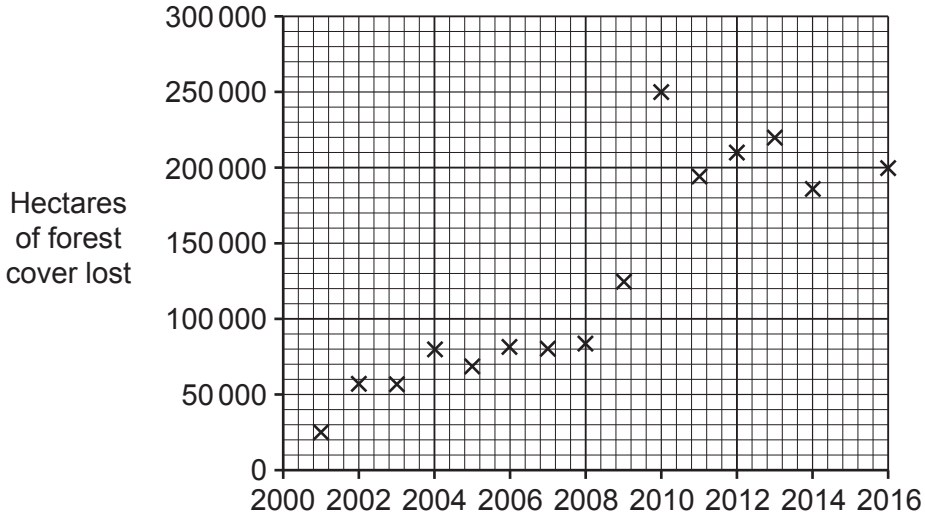
B harsh climate, low biodiversity, thin soils, plants with long tap roots

C short, warm summers and long, cold winters, high rainfall, spiny plants

D too much rain for trees to grow; low-growing grasses provide food for grazing animals

Write the correct letter in the box. ☐ **[1]**

(b) The graph below shows the amount of Cambodia's forest cover lost between 2001 and 2016.



(i) Use the data below to complete the scattergraph. **[1]**

Year	Hectares of forest cover lost
2015	160 000

(ii) Select the correct description of the pattern shown by the graph.

A directly proportional correlation

B negative correlation

C no correlation

D positive correlation

Write the correct letter in the box. ☐ **[1]**

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(c) Deforestation is the removal of trees from land to make room for something besides forest.

Suggest **two** reasons for the deforestation of tropical rainforests.

1 .....

2 .....
[2]

(d) Study **Fig. 6** in the separate Resource Booklet, which shows a cartoon about Earth Day in 2035. Outline the message given by this cartoon.

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(e) Explain the impacts of human activity on **either** the Antarctic or Arctic ecosystem.

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SECTION B

Answer **all** the questions.

Physical Geography Fieldwork

5 **(a)** Study **Fig. 7** in the separate Resource Booklet, a photograph showing part of the River Lune.

Write **one** annotation that could be added to the photograph to describe the fieldwork site.

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..... **[1]**

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As part of a fieldwork investigation, students were investigating how sediment size changes. The table below shows some of the data which they collected.

Site number	Mean pebble length (mm)
Site 1	42
Site 2	33
Site 3	19

(b) Suggest how students could have collected this data.

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..... **[4]**

(c) You will have carried out some **physical geography fieldwork** as part of your GCSE (9–1) Geography course.

Fieldwork title: .....

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(i) Justify **one** technique which you used when presenting your data in your **physical geography fieldwork** investigation.

Data presentation technique: .....

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(ii)* To what extent did your **physical geography fieldwork** conclusions support ideas studied in class?

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

END OF QUESTION PAPER

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ADDITIONAL ANSWER SPACE

If additional space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margin(s).

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