



Oxford Cambridge and RSA

Friday 9 June 2023 – Morning

**GCSE (9–1) Geography A
(Geographical Themes)**

J383/02 The World Around Us

Time allowed: 1 hour



You must have:

- the Resource Booklet (inside this document)

You can 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 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 **60**.
- 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 **12** pages.

ADVICE

- Read each question carefully before you start your answer.

2

Ecosystems of the Planet

1 (a) Look at the table below, which shows climate data for a hot desert ecosystem.

Climate data for a hot desert ecosystem

Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (mm)	6	5	4	2	1	0	0	0	0	1	3	6
Average Temperature (°C)	14	15	17	22	25	27	28	28	27	24	19	15

(i) State the **mode** for the rainfall data.

..... [1]

(ii) Calculate the **mean** annual rainfall.
Give your answer to **one** decimal place.

..... [1]

(iii) Identify **two** features of the climate data which are typical of a hot desert ecosystem.

Feature 1

.....

Feature 2

..... [2]

(b) Explain how plants are **adapted** to the climate of a hot desert ecosystem.

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..... [4]

3

(c) Explain briefly **two** threats to the biodiversity of tropical rainforests.

Threat 1

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Threat 2

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[4]

(d) **CASE STUDY**

Tropical rainforest interdependence

Tropical rainforest you have studied:

Explain the **interdependence** of climate, soil and plants in tropical rainforest ecosystems.

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[6]

People of the Planet

2 (a) Look at **Fig. 1** in the Resource Booklet, which shows a population pyramid for a Low Income Developing Country (LIDC).

(i) What is the approximate total of the population aged **under** 15 years?

- A 6 million
- B 10 million
- C 14 million
- D 18 million

Write the correct letter in the box. [1]

(ii) Which of the statements about the population pyramid is **correct**?

- A There is a high birth rate and high life expectancy
- B There is a high birth rate and low life expectancy
- C There is a low birth rate and high life expectancy
- D There is a low birth rate and low life expectancy

Write the correct letter in the box. [1]

(b) (i) Define economic development.

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..... [1]

(ii) Explain the **advantages** of using the Human Development Index (HDI) as a development indicator.

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..... [3]

Environmental threats to our Planet

3 (a) Look at Fig. 2a and Fig. 2b in the Resource Booklet.

Fig. 2a shows average global temperatures for the last 400 000 years.

Fig. 2b shows carbon dioxide levels in the atmosphere for the last 400 000 years.

(i) State the lowest temperature shown on Fig. 2a.

Give your answer as a whole number.

..... [1]

(ii) Which of the statements is a correct definition of an ice age?

- A Cooling average global temperatures causing increased snowfall
- B Lower than average global temperatures when glacial ice covers more land
- C Variable average global temperatures causing glacial ice to form and melt
- D Warming average temperatures causing glacial ice to melt

Write the correct letter in the box.

[1]

(iii) Look at Fig. 2a and Fig. 2b.

Describe the relationship between average global temperatures and carbon dioxide levels.

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..... [2]

(iv) Greenhouse gases are one cause of increases in global temperatures.

Explain one possible natural cause of increases in global temperatures.

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..... [2]

(b) Look at **Fig. 3** in the Resource Booklet, which shows extreme weather and climate events costing one billion dollars in the USA from 2010 to 2017.

(i) Which type of event, shown in **Fig. 3**, occurred **most** often in 2017?

..... [1]

(ii) Suggest how the increased frequency of extreme weather and climate events, shown in **Fig. 3**, may be a consequence of global climate change.

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..... [3]

(c) Explain how the global circulation of the atmosphere leads to extreme wet weather conditions in **one** part of the world.

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..... [3]

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).

A large area of horizontal dotted lines for writing, with a vertical solid line on the left side. The lines are evenly spaced and extend across the width of the page, providing a structured space for students to write their answers.

A series of horizontal dotted lines for writing, with a solid vertical line on the left side.

A writing template featuring a vertical solid line on the left side that serves as a margin. The rest of the page is filled with horizontal dashed lines, providing a guide for writing text.

A large rectangular area with a solid vertical line on the left side and horizontal dotted lines extending across the page, providing a space for writing answers.

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