



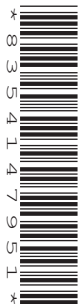
Oxford Cambridge and RSA

# Wednesday 1 December 2021 – Morning

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

### J383/03 Geographical Skills

Time allowed: 1 hour 20 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

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Candidate number

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First name(s)

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Last name

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### 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 **65**.
- 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.

**Section A – Geographical Skills**

Answer **all** the questions.

1 Study **Fig. 1** in the separate Resource Booklet, an article about the El Niño weather event.

(a) (i) State the percentage chance of an El Niño event as a decimal.

..... [1]

(ii) Identify how the UK winter weather is likely to be affected by this El Niño event.

- A increased wind and rain
- B increased wind and snow
- C less wind and drier conditions
- D less wind and more snow

Write the correct letter in the box.

[1]

(iii) Identify **two** environmental impacts of El Niño weather events according to **Fig. 1**.

1 .....

2 .....

[2]

(b) Study **Fig. 2** in the separate Resource Booklet, which shows the effect of El Niño on global weather patterns.

(i) Suggest **one** way to improve how the information in **Fig. 2** is presented. Explain your answer.

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

(ii) Which two world regions does **Fig. 2** suggest will have **dry and warm** conditions due to El Niño?

- A Central Africa and Southern India
- B Europe and Northern Africa
- C Indonesia and South-East Africa
- D South America and Japan

Write the correct letter in the box.

[1]

(c) Study **Fig. 3** in the separate Resource Booklet, which shows river flow in locations across the UK.

(i) Describe the pattern of river flow shown in **Fig. 3**.

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

(ii) The table below shows the peak river flow for December of selected rivers in the UK.

<b>Region</b>	<b>Size of river catchment (sq. km)</b>	<b>Peak river flow (cumecs)</b>
<b>Eden</b>	2286	1700
<b>Ribble</b>	1145	1130
<b>Tees</b>	818	614
<b>Tweed</b>	4390	1361
<b>Tyne</b>	2176	1730
<b>Wharfe</b>	759	581

Calculate the mean value for peak river flow from the data shown. You must show your working out.

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

(iii) Suggest **two** potential reasons for the differences in peak river flow shown in the table above.

1 .....

.....

2 .....

.....

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



2 Study **Fig. 4** in the separate Resource Booklet, a map of exports from Heathrow Airport.

(a) Which city received the highest amount of exports from Heathrow?

- A Hong Kong
- B Lagos
- C Melbourne
- D Shanghai

Write the correct letter in the box.

[1]

(b) Read the article below.

Air freight through Heathrow alone accounts for almost a quarter of UK trade with non-EU countries by value. The airport is the UK's key hub airport for cargo, as well as passengers. It serves at least 79 destinations directly with cargo operations and has links to over one thousand others. 2 million tonnes of air cargo passes through the airport each year, in addition to the 60 million passengers, accounting for 474 000 air transport movements per year.

Express the ratio of cargo to passengers at Heathrow Airport in its simplest form.

Show your working out.

..... [2]

(c) Explain how **Fig. 4** uses flow lines to display the data.

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..... [2]

(d) Using information from **Fig. 4**, describe the pattern of exports from Heathrow Airport.

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..... [3]

(e) Suggest **one** alternative way that the data in **Fig. 4** might be displayed. Justify your choice.

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..... [3]

3 Study **Fig. 5** in the separate Resource Booklet, which shows a climate graph for a region of Canada.

(a) Estimate the mean precipitation in the month of May.

..... [1]

(b) What would be the most likely temperature in the month of November?

- A  $-28^{\circ}\text{C}$
- B  $-2^{\circ}\text{C}$
- C  $2^{\circ}\text{C}$
- D  $28^{\circ}\text{C}$

Write the correct letter in the box.

[1]

(c) Using **Fig. 5**, suggest how the climate shown would lead to the distinctive characteristics of a polar ecosystem.

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

(d) Study **Fig. 6** in the separate Resource Booklet, a diagram and report on climate change.

(i) State **one** abiotic component of the ecosystem shown in **Fig. 6**.

..... [1]

(ii) Identify **two** reasons for the decline in polar bear populations.

1 .....

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2 .....

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[2]

(iii) Assess how far climate change has a greater impact on polar ecosystems than any other ecosystem worldwide.

Use **Fig. 6** and your own understanding to answer.

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..... [6]



**Section B – Geographical Fieldwork**

Answer **all** the questions.

- 4 Some geography students have been conducting **human geography** fieldwork in a town centre. They have focused on urban regeneration. Urban regeneration is the attempt to improve both the economic and social spaces within an urban area in order to reverse its decline.

As part of their study, the students carried out an environmental quality survey, which is shown in the table below.

	-2	-1	0	1	2	
<b>High levels of graffiti</b>				✓		<b>No signs of graffiti</b>
<b>Much litter</b>		✓				<b>No sign of litter</b>
<b>Evidence of vandalism (e.g. broken windows)</b>					✓	<b>No evidence of vandalism</b>
<b>Buildings in poor condition</b>					✓	<b>Buildings kept in good order</b>

- (a) (i) What is the total environmental quality score for the area shown in the table above?

..... [1]

- (ii) Explain how the total environmental score and environmental quality survey for this area suggests it has benefited from regeneration.

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

- (b) Select **one** data presentation technique that might be used to present the information in the environmental quality survey.

..... [1]

- (c) Study **Fig. 7** in the separate Resource Booklet, which shows a photograph of the location studied. A black and white reproduction of **Fig. 7** is below.

Add **three** annotations to the photograph below of the location studied to explain the features of regeneration.



[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 lined paper for writing. It consists of a vertical solid line on the left side, creating a margin. To the right of this line, there are numerous horizontal dotted lines spaced evenly down the page, providing a guide for writing.

Handwriting practice lines consisting of 20 horizontal rows. Each row is defined by a solid top line, a dashed middle line, and a solid bottom line. A vertical solid line is positioned on the left side of the page, creating a margin for writing.



Lined paper template with a vertical margin line on the left and horizontal dotted lines.

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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