



Oxford Cambridge and RSA

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

J384/03 Geographical Exploration

Monday 11 June 2018 – Afternoon

Time allowed: 1 hour 30 minutes



You must have:

- the Resource Booklet (inserted)

You may use:

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



First name

Last name

Centre
number

Candidate
number

INSTRUCTIONS

- The separate Resource Booklet will be found inside this document.
- 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, use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.
- Do **not** write in the barcodes.

INFORMATION

- The total mark for this paper is **60**.
- 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 **12** pages.

Answer **all** the questions.

1 (a) Study **Fig. 1** in the separate Resource Booklet, a GIS map of Rio de Janeiro.

(i) Identify **one** human feature of Rio de Janeiro shown on **Fig. 1**.

.....
 [1]

(ii) Identify **one** physical feature of Rio de Janeiro shown on **Fig. 1**.

.....
 [1]

(iii) The city boundaries of Rio de Janeiro in 1900 and 2015 are outlined on **Fig. 1**.

Estimate the area of Rio de Janeiro in **1900** in km².

..... km² [1]

(iv) Using **Fig. 1**, describe the location of Copacabana Beach.

.....

 [3]

(b) Study **Fig. 2** in the separate Resource Booklet, photographs and reviews of three coastal areas in Rio de Janeiro.

State **two** human uses of Rio de Janeiro's coastal areas seen in **Fig. 2**.

1
 2 [2]

- (c) Study **Fig. 3** in the separate Resource Booklet, beach management strategies used in Brazil.

450 metres of Copacabana Beach, in Rio de Janeiro, needs coastal management to avoid widespread coastal erosion.

- (i) Calculate the cost of rock armour for Copacabana Beach.

£ [1]

- (ii) Using your own understanding, suggest whether beach nourishment or rock armour would be most appropriate for coastlines with high levels of erosion by hydraulic action.

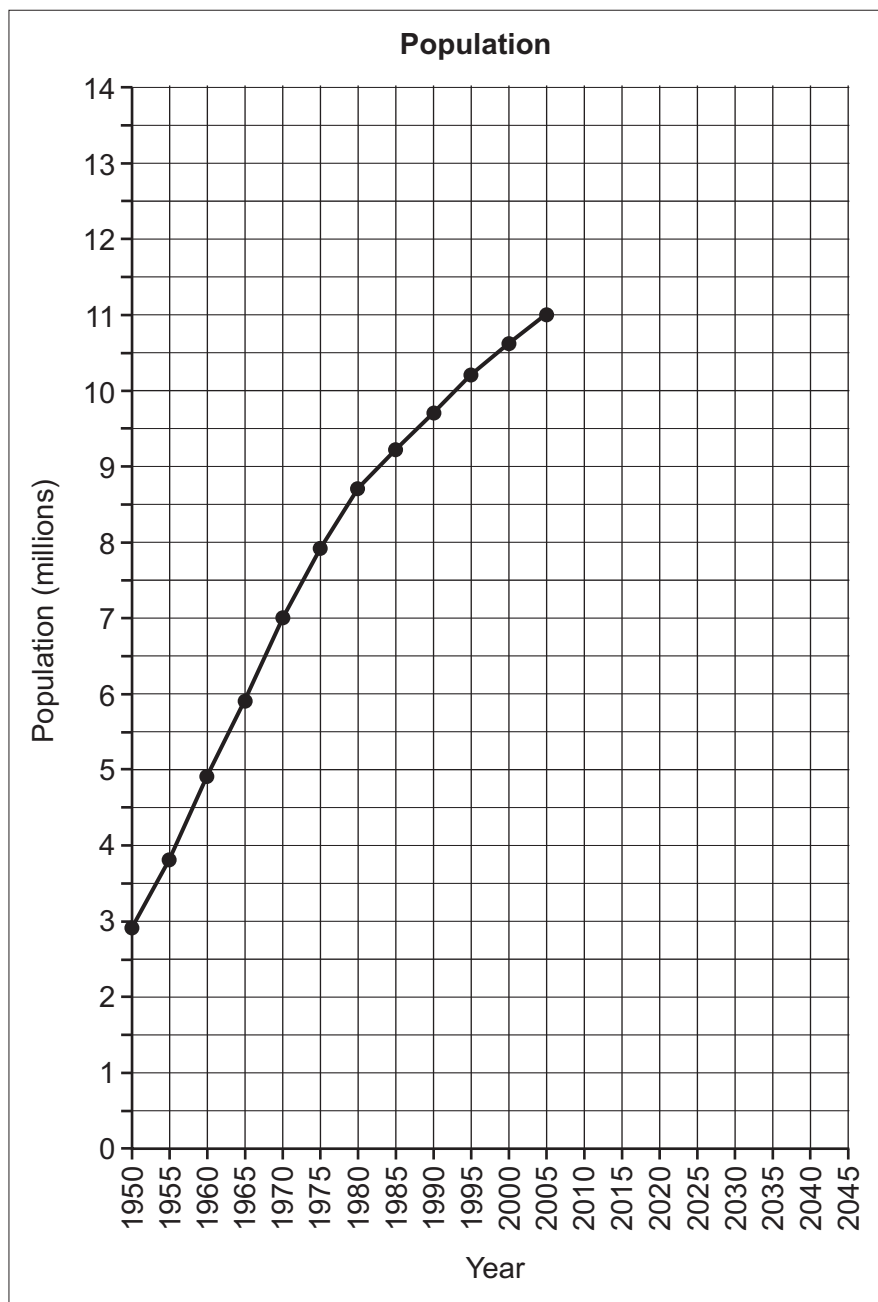
.....
.....
.....
..... [2]

(d)* Study **Figs 3 and 4** in the separate Resource Booklet, beach management strategies used in Brazil and a sketch showing impacts of beach nourishment (beach replenishment) at Copacabana Beach.

Using **Figs 1, 2, 3 and 4** and your own understanding, explain how challenges in the city of Rio de Janeiro affect the coastal landscape.

..... [12]

- 2 (a) The graph and table below show the population of Rio de Janeiro.



Year	Population (millions)
1950	2.9
1955	3.8
1960	4.9
1965	5.9
1970	7
1975	7.9
1980	8.7
1985	9.2
1990	9.7
1995	10.2
2000	10.6
2005	11
2010	11.5
2015	11.9

- (i) Complete the line graph for 2010 and 2015 using the table of data provided. [2]
- (ii) Predict the population of Rio de Janeiro in 2040, based on the current growth rate.

.....

[1]

..... [4

Using **Fig. 5** and your own understanding, explain why Rio de Janeiro has experienced rapid urban growth.

..... [6]

- 3 Study **Fig. 6** in the separate Resource Booklet, a map of Botafogo, a suburb of Rio de Janeiro, and **Fig. 7**, photographs taken in the Santa Marta squatter settlement (favela).

- (a) (i) Use **Fig. 6** to calculate the distance in km from (A) Santa Marta to (B) Botafogo beach.

..... km [1]

- (ii) Santa Marta is one of the squatter settlements found in Rio de Janeiro. Using **Figs 6 and 7**, briefly explain **one** challenge people living in Santa Marta may face.

.....

 [2]

- (b) Using **Figs 2, 6 and 7** in the separate Resource Booklet, and your own understanding, assess the contemporary challenges created by the inequality within Botafogo.

.....

 [6]

Rio de Janeiro warns other Olympic host cities of the hidden costs of hosting the games as they struggle to pay for public services in the city. One resident said, “We hosted a fantastic party but now it’s a desperate situation. We simply do not have enough money to pay all of our bills and this means that we are facing huge cuts”.

Using the information in the separate Resource Booklet and your own understanding:

1. Examine whether you think that Rio de Janeiro should prioritise coastal management or improving the squatter settlements (favelas) over the next 10 years?
2. Suggest how your decision could lead to long-term sustainability for the city.

[illegible]

END OF QUESTION PAPER

This image shows a full page of primary-ruled paper. It features a vertical solid line on the left side, creating a narrow margin. The rest of the page is filled with horizontal dashed lines, providing a guide for handwriting practice. There are no markings or text on the page.

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