

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GCSE (9–1)**

J384/03

**GEOGRAPHY B
(GEOGRAPHY FOR ENQUIRING MINDS)**

Geographical Exploration

**MONDAY 11 JUNE 2018: Afternoon
TIME ALLOWED: 1 hour 30 minutes
plus your additional time allowance
MODIFIED ENLARGED 24pt**

First name		Last name	
-----------------------	--	----------------------	--

Centre number						Candidate number				
--------------------------	--	--	--	--	--	-----------------------------	--	--	--	--

**YOU MUST HAVE:
the Resource Booklet**

**YOU MAY USE:
a scientific or graphical calculator
a ruler (cm/mm)**

READ INSTRUCTIONS OVERLEAF



INSTRUCTIONS

The separate Resource Booklet will be found with this document.

Use black ink. You may use an HB pencil for graphs and diagrams.

Complete the boxes on the front page 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.

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 ().

BLANK PAGE

BLANK PAGE

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. [2]

1 _____

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]

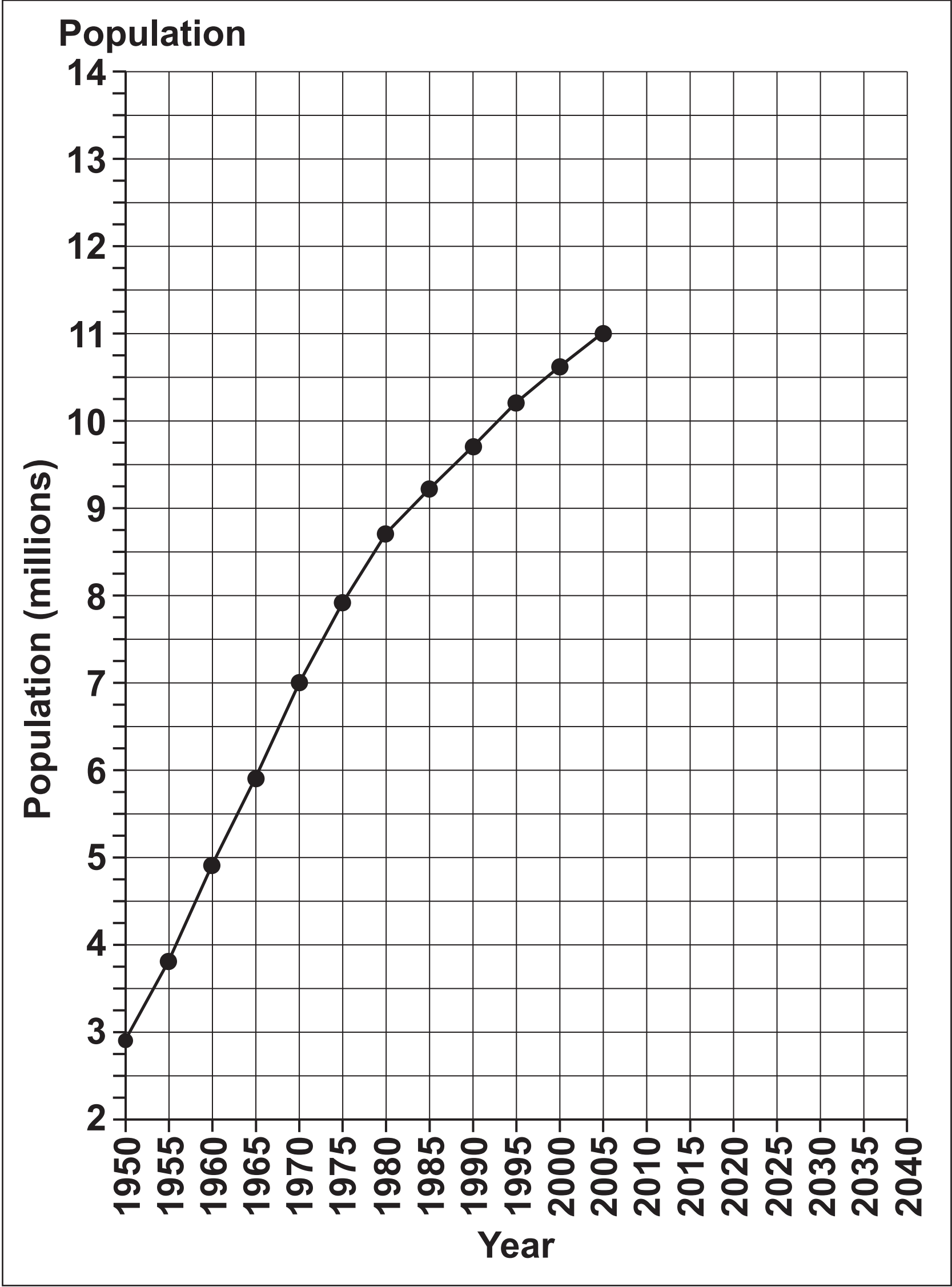
This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

2 (a) The graph opposite 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]



(b) Rio de Janeiro can be considered a world city.

Explain the characteristics of a world city.

[4]

(c) Study FIG. 5 in the separate Resource Booklet, statistics for Rio de Janeiro and Brazil.

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

[illegible]

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]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. In the bottom right corner, there is a small black box containing the number "6".

RIO DE JANEIRO IS BANKRUPT FOLLOWING 2016 OLYMPIC GAMES

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”.

Rio de Janeiro is facing many challenges, both physical and human, and, as outlined in the article above, the city now has a very limited budget.

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. [12]

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

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

END OF QUESTION PAPER

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).

[illegible]

