



**Cambridge International Examinations**  
Cambridge International General Certificate of Secondary Education

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**GEOGRAPHY**

**0460/41**

Paper 4 Alternative to Coursework

**October/November 2017**

INSERT

**1 hour 30 minutes**

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**READ THESE INSTRUCTIONS FIRST**

The Insert contains Figs. 1 and 3, Tables 1 and 3 for Question 1, and Tables 4, 5, 6 and Fig. 10 for Question 2.

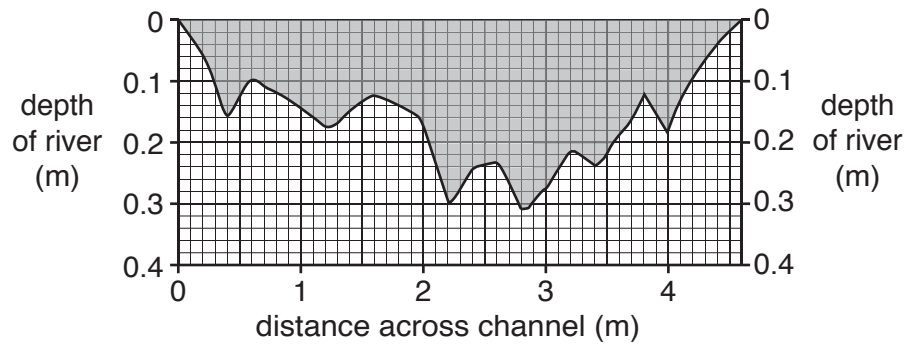
The Insert is **not** required by the Examiner.

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This document consists of **8** printed pages.

**Fig. 1 for Question 1****Cross section at site 2****Table 1 for Question 1****Results of measurements of river depth at site 5**

Distance across channel (m)	Depth of river (m)
0.0	0.00
0.2	0.03
0.4	0.12
0.6	0.16
0.8	0.13
1.0	0.18
1.2	0.23
1.4	0.31
1.6	0.26
1.8	0.29
2.0	0.32
2.2	0.35
2.4	0.33
2.6	0.34
2.8	0.39
3.0	0.42
3.2	0.40
3.4	0.44
3.6	0.47
3.8	0.43

Table 1 for Question 1 (continued)

Distance across channel (m)	Depth of river (m)
4.0	0.45
4.2	0.51
4.4	0.58
4.6	0.54
4.8	0.58
5.0	0.56
5.2	0.52
5.4	0.56
<b>5.6</b>	<b>0.40</b>
<b>5.8</b>	<b>0.48</b>
<b>6.0</b>	<b>0.43</b>
6.2	0.39
6.4	0.34
6.6	0.33
6.8	0.35
7.0	0.30
7.2	0.32
7.4	0.27
7.6	0.22
7.8	0.18
8.0	0.14
8.2	0.09
8.4	0.00

Fig. 3 for Question 1

## Visual pollution survey sheet

Site 3					
Evidence	0 points	1 point	2 points	3 points	4 points
Suspended solids	Very clear	Clear	Fairly clear	Slightly cloudy / murky	Cloudy / Murky
Colour	Very clear	Clear	Slightly brown	Dark brown	Black
Stones	Clean and bare	Clean	Lightly covered in brown deposits	Coated with brown deposits	Covered in brown and grey deposits
Water weed	None	A little in shallow water	Lots in shallow water	Lots throughout the river	River is full of weed
Grey sewage fungus	None	Very little	Little	Present in patches	Plenty
Scum/froth/oil	None	A few bubbles	Noticeable islands of foam	Large quantities	Covers whole river
Dumped rubbish	None	A few small items	A few large items	Large and small items	Many different large items

Total score	Description
0–3	very clean
4–9	clean
10–15	fairly clean
16–21	slightly polluted
more than 21	badly polluted

**Table 3 for Question 1****Results of fieldwork**

Site	Distance downstream (km)	Total pollution score	Main land use
1	3	3	Fields for animal farming
2	7	6	Fields with crops growing in them
3	11	11	Shopping area and car park
4	15	17	Factory processing raw materials
5	23	9	Estate of modern houses
6	37	7	Countryside park attracting visitors

Table 4 for Question 2

**Shops and services in the CBD**

Shops and services	Percentage
shop selling high-order goods	39
high-order service	27
shop selling low-order goods	<b>20</b>
low-order service	<b>14</b>

Table 5 for Question 2

**Answers to Question 2:**  
**Which settlement have you come from today?**

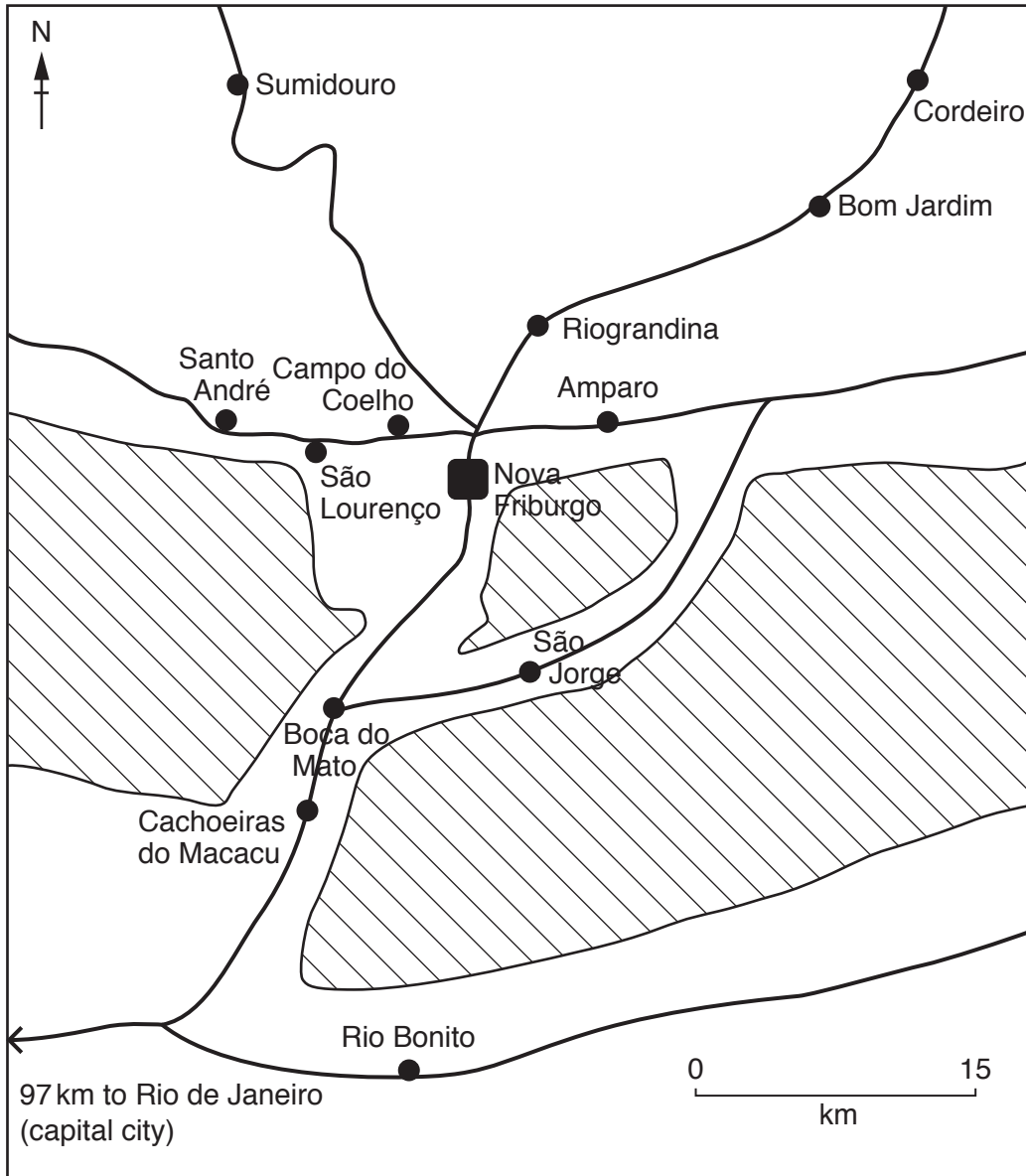
Settlement	Number of people
Riograndina	17
Nova Friburgo	14
Bom Jardim	12
<b>Sumidouro</b>	<b>10</b>
Amparo	8
Boca do Mato	8
Campo do Coelho	6
Cordeiro	6
São Lourenço	6
Cachoeiras de Macacu	5
Santo André	3
<b>São Jorge</b>	<b>3</b>
Rio Bonito	2
Total	100

**Table 6 for Question 2****Answers to Question 3:  
How did you travel to the CBD today?**




Method of travel	Number of people
bus	47
car	<b>30</b>
walk	14
bicycle/motorbike	<b>9</b>

Fig. 10 for Question 2

Area around Nova Friburgo



Key

-  main roads
-  settlement
-  upland area

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