



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

CANDIDATE  
NAME

CENTRE  
NUMBER

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CANDIDATE  
NUMBER

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**GEOGRAPHY**

**0460/21**

Paper 2

**October/November 2011**

**1 hour 30 minutes**

Candidates answer on the Question Paper.

Additional Materials:     Ruler  
                                   Protractor  
                                   Plain paper

1:50 000 Survey Map Extract is enclosed with this Question Paper.

**READ THESE INSTRUCTIONS FIRST**

Write your Centre number, candidate number and name in the spaces provided.

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

**DO NOT WRITE IN ANY BARCODES.**

Answer **all** questions.

The Insert contains Photographs A, B and C for Question 4 and Photograph D for Question 6.

Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

The Survey Map Extract and the Insert are **not** required by the Examiner.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **14** printed pages and **2** blank pages and **1** Insert.



1 Study the map extract which is for Old Harbour, Jamaica. The scale is 1:50 000.

For  
Examiner's  
Use

(a) Fig. 1 shows some of the features in the north west part of the map extract. Study Fig. 1 and the map extract, and answer the questions below.

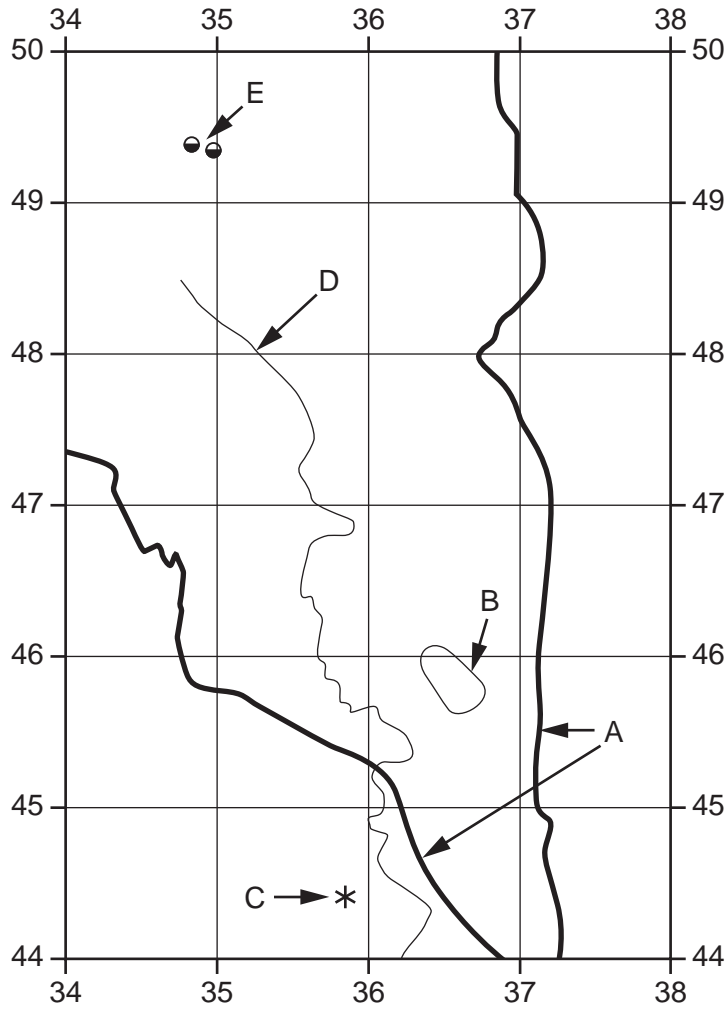


Fig. 1

Using the map extract, identify the following features shown on Fig. 1:

- (i) type of road at A;  
..... [1]
- (ii) feature at B;  
..... [1]
- (iii) feature at C;  
..... [1]
- (iv) name of river D;  
..... [1]
- (v) features at E.  
..... [1]

(b) Fig. 2 shows a river in the south east part of the map extract.

For  
Examiner's  
Use

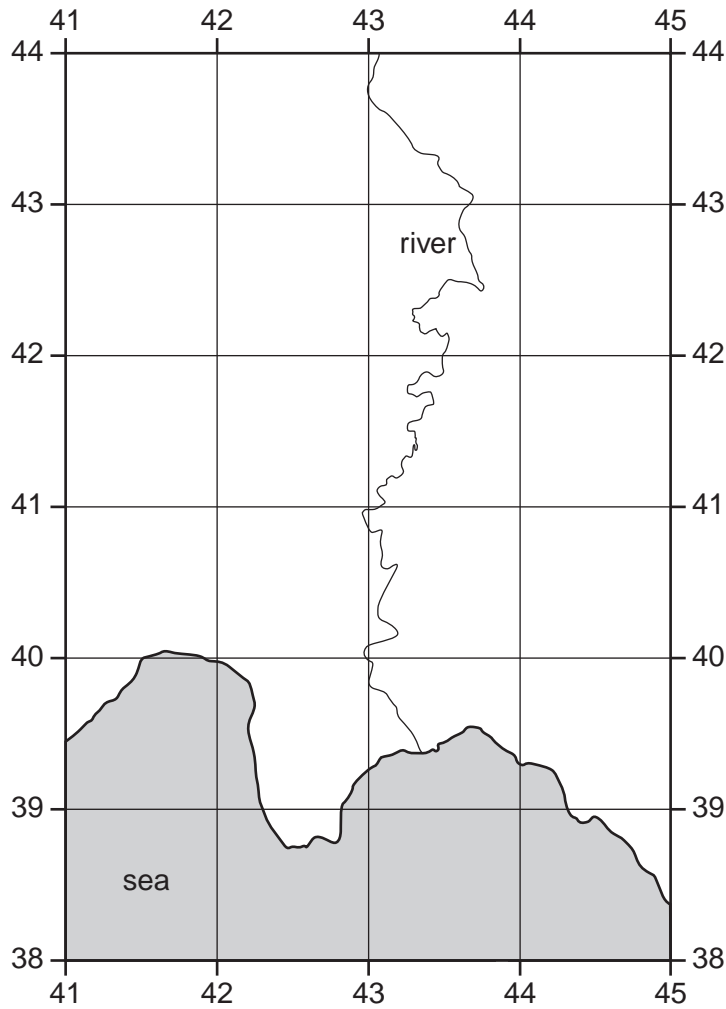


Fig. 2

(i) State **four** types of vegetation or land use found along the banks of the river.

- |         |             |
|---------|-------------|
| 1 ..... | 2 .....     |
| 3 ..... | 4 ..... [2] |

- (ii) Which **four** of the following statements about the part of the river shown on Fig. 2 are true? Tick **four** boxes.

For  
Examiner's  
Use

Statement	Tick (✓)
The river flows from south to north	
The river flows from north to south	
The river flows across flat land	
Oxbow lakes can be found along the river	
The river has more than four tributaries	
There are waterfalls on the river	
There are dams along the river	
The river flows across steep land	
There is coral at the mouth of the river	
The river is crossed by a railway	

[4]

- (c) Find the main road junction at the centre of the main settlement of Old Harbour.

- (i) State the four figure reference of the grid square which contains the road junction.

.....

[1]

- (ii) Measure the distance along the Class A road, from the road junction westwards to the first level crossing (LC) near Freetown. Give your answer in metres.

..... metres

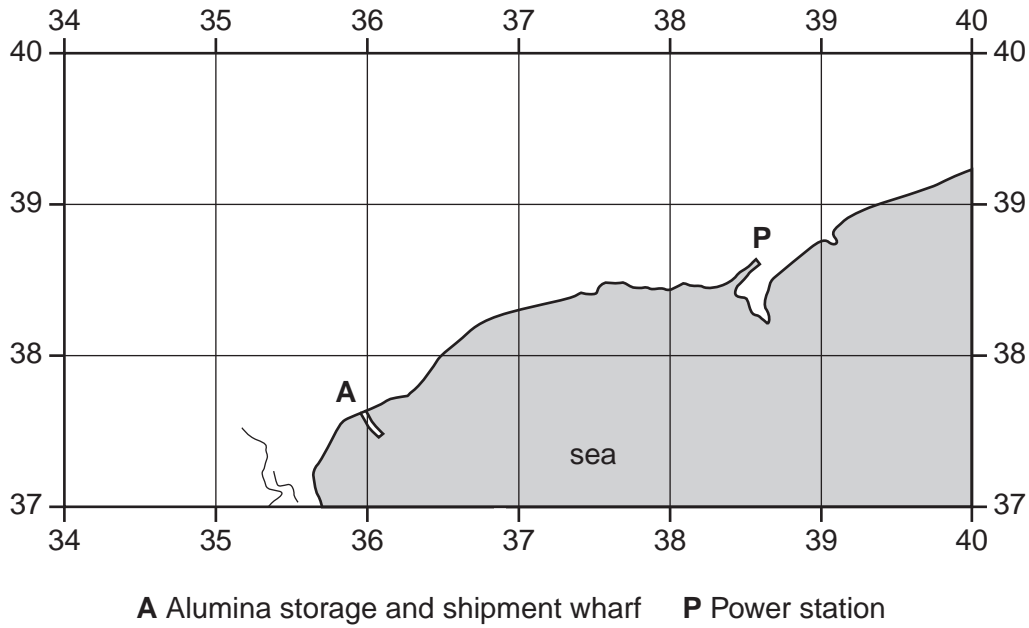
[1]

- (iii) What is the compass bearing from the road junction to the level crossing? Tick **one** correct answer.

Compass bearing	Tick (✓)
42°	
118°	
124°	
242°	
258°	

[1]

(d) Fig. 3 shows the location of two industries on the coast of the area.



**Fig. 3**

Describe the advantages of this area for industrial development.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
..... [4]

(e) Using map evidence, explain why a tourist industry has **not** developed along the coastline shown in the map extract.

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

[Total: 20 marks]

2 Fig. 4 gives information about the origin of children in immigrant families in four countries. The percentages who have migrated from MEDCs and the percentage who have migrated from LEDCs are shown.

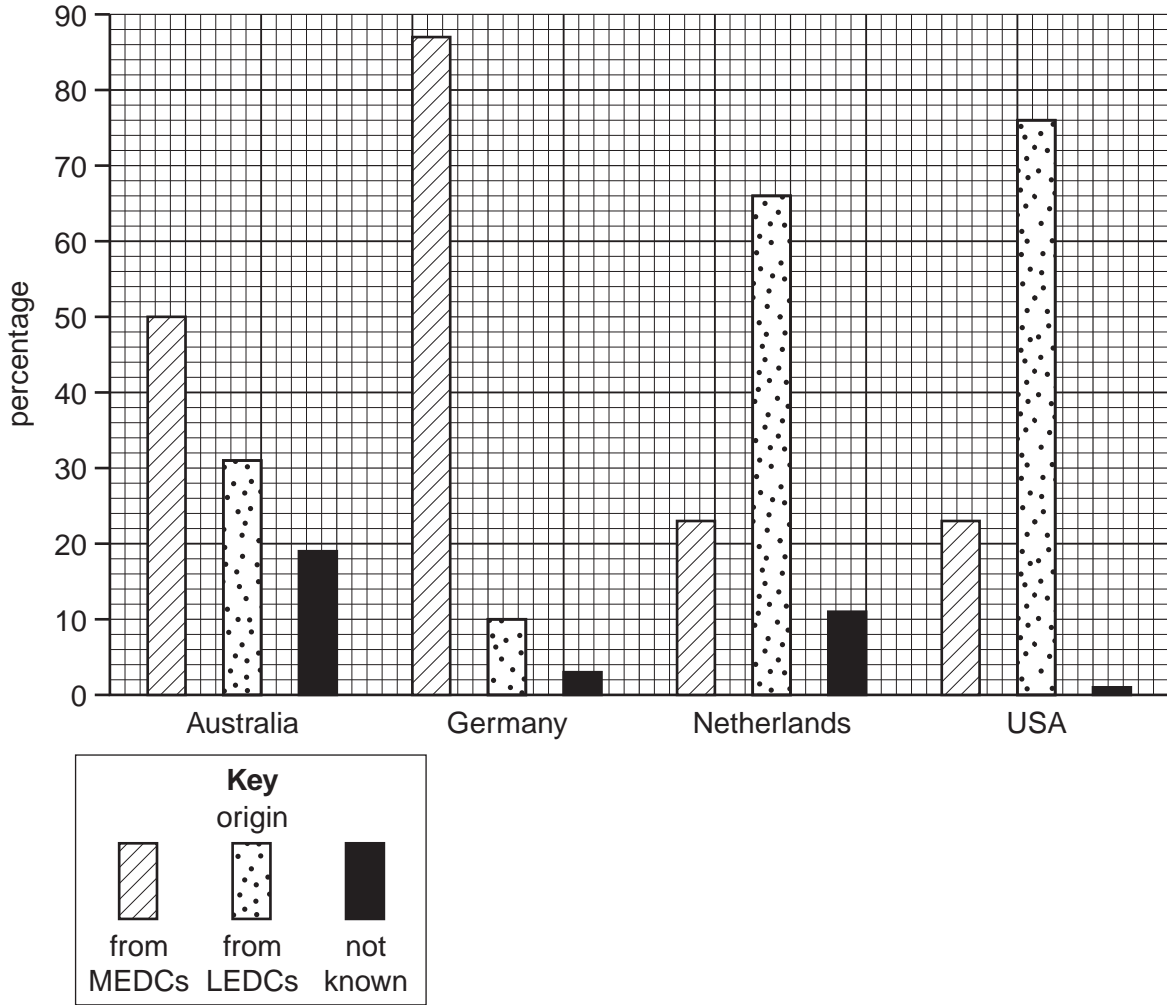


Fig. 4

(a) (i) What is the percentage of children in immigrant families in Germany who have come from LEDCs?

..... [1]

(ii) Using the evidence from Fig. 4, tick **one** correct statement below.

Statement	Tick (✓)
Children in immigrant families come mostly from LEDCs	
Children in immigrant families come mostly from MEDCs	
There is no clear pattern of origin of children in immigrant families	

[1]

(b) Fig. 5 describes some of the effects of migration on children.

For  
Examiner's  
Use

**Children and migration**

*Children left behind* by migrating parents may benefit from money being sent home to pay for food, schooling or medical care. They may suffer from emotional difficulties.

*Children who migrate with their parents* may face discrimination. They may suffer because their parents are financially insecure and also find cultural difficulties and language barriers. However not all children face these difficulties and according to the Convention on the Rights of the Child, it is the duty of any country to ensure that all children enjoy their human rights, whether they are migrants or not. These children may have better facilities and be better off financially.

*Children who have to migrate independently* of their parents are similar to adult migrants seeking new opportunities. They may be domestic workers, street children or foster children. Some send money to their families or combine work with schooling or training.

**Fig. 5**

Study Fig. 5, then in your own words describe **one** benefit and **one** problem for each group of migrant children below.

(i) Children left behind

Benefit .....  
..... [1]

Problem .....  
..... [1]

(ii) Children who migrate with their parents

Benefit .....  
..... [1]

Problem .....  
..... [1]

(iii) Children who have to migrate independently

Benefit .....  
..... [1]

Problem .....  
..... [1]

[Total: 8 marks]

- 3 A dam is to be built in a valley to supply water. Fig. 6 is a map showing the site of the proposed dam.

For  
Examiner's  
Use

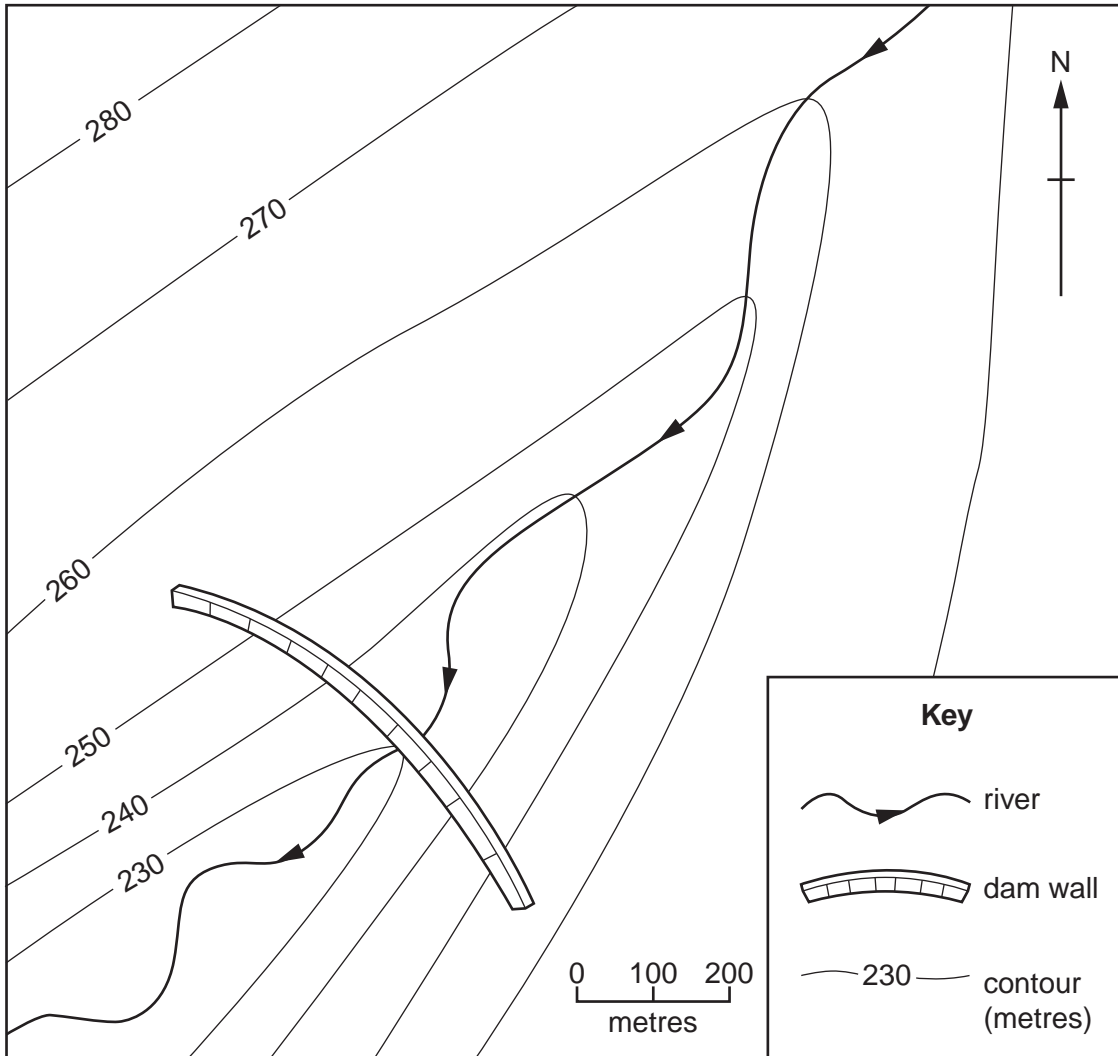


Fig. 6

- (a) (i) On Fig. 6, shade the maximum area that could be flooded after the dam has been built. [1]
- (ii) After the maximum area has been flooded, how deep will the water be at the deepest point? Tick **one** correct answer.

Depth (metres)	Tick (✓)
10	
15	
20	
25	
30	

[1]



(b) The dam wall will be constructed out of stone. Four types of building stone are available in the local area. These are described in Table 1 below.

For  
Examiner's  
Use

**Table 1**

Building stone	Description
A	Hard rock made out of minerals which do not decay. Very strong. Few cracks or lines of weakness.
B	Limestone. Made of calcium carbonate. Strong with few cracks/lines of weakness.
C	Strong hard rock made out of resistant minerals. Cut by small cracks a few centimetres apart.
D	Hard rock. Contains a high percentage of iron minerals.

The dam builders are worried about the possible effects of weathering on the dam wall. For this reason, Building Stone A was chosen.

Explain why the other **three** building stones were rejected. Refer to processes of weathering in your answer.

(i) Building Stone B .....

.....

.....

..... [2]

(ii) Building Stone C .....

.....

.....

..... [2]

(iii) Building Stone D .....

.....

.....

..... [2]

[Total: 8 marks]



4 Photographs A, B and C (Insert) show three settlement patterns.

(a) Name the **three** settlement patterns.

Photograph A .....

Photograph B .....

Photograph C .....

[3]

(b) Photograph A shows a rural area. Describe the relief, agriculture and vegetation shown in the photograph.

Relief .....

.....

.....

.....

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.....

Agriculture .....

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.....

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.....

.....

Vegetation .....

.....

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.....

.....

..... [5]

[Total: 8 marks]

5 Soil erosion can be caused by wind or running water. Fig. 7A shows the factors that cause soil erosion by wind and Fig. 7B shows the factors that cause soil erosion by running water.

For  
Examiner's  
Use

ground completely covered	← Amount of vegetation or crop cover →	bare ground
heavy rainfall	← Amount of rainfall →	no rainfall
strong wind	← Strength of wind →	no wind

x = conditions that cause soil erosion by wind

**Fig. 7A**

ground completely covered	← Amount of vegetation or crop cover →	bare ground
heavy rainfall	← Amount of rainfall →	no rainfall
steep slope	← Steepness of ground surface →	gentle slopes

x = conditions that cause soil erosion by running water

**Fig. 7B**

(a) Using Figs 7A and 7B, describe and explain the effect on soil erosion of the following factors.

(i) Amount of vegetation or crop cover

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

(ii) Amount of rainfall

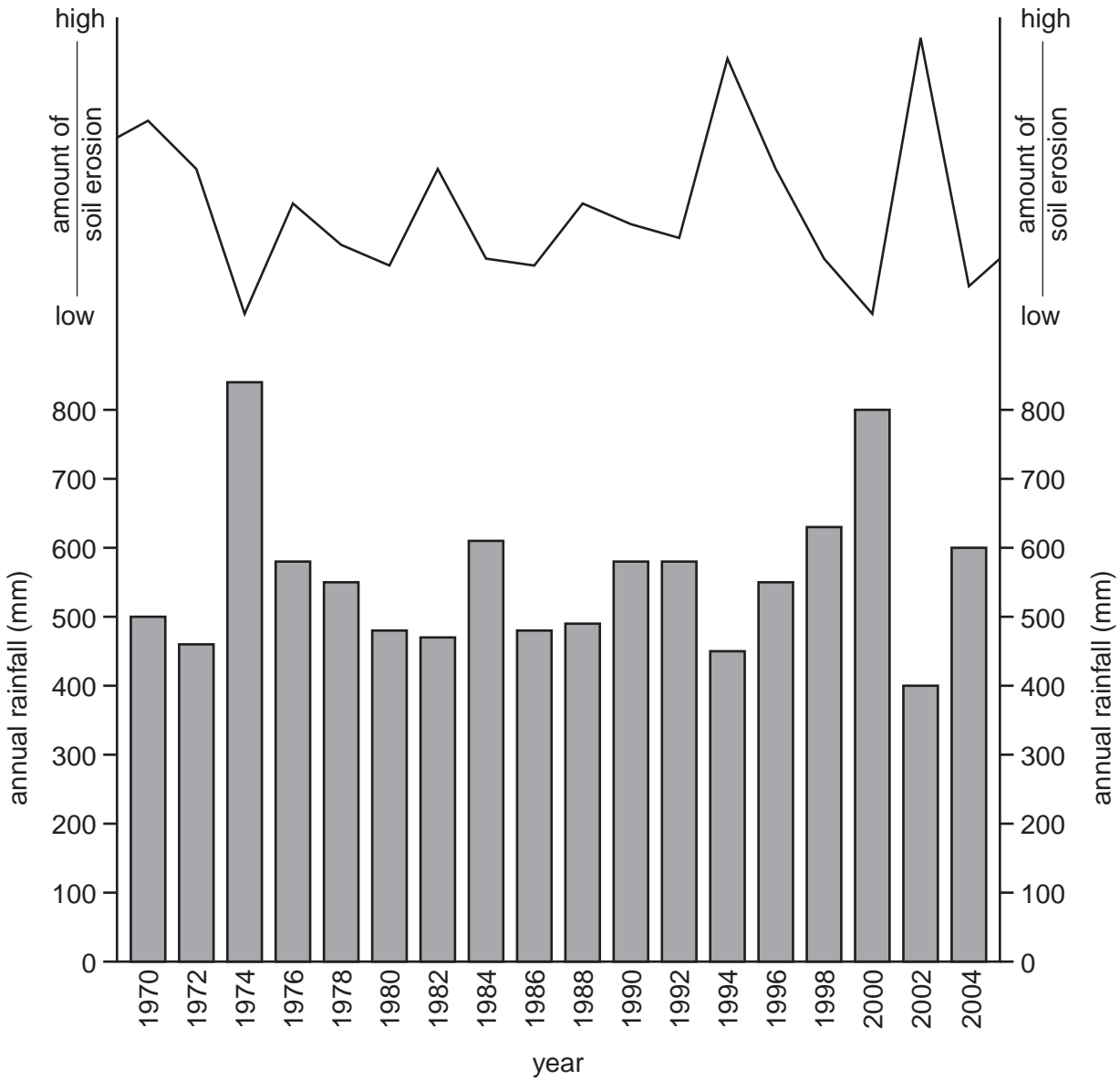
.....  
 .....  
 .....  
 ..... [2]

(iii) Steepness of ground surface

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

(b) Fig. 8 gives information about rainfall and soil erosion in Australia.

For  
Examiner's  
Use



**Fig. 8**

Which cause of soil erosion has been more important in Australia, wind or running water? Explain your answer. (You may use Figs 7A, 7B and Fig. 8 to help you).

.....

.....

.....

.....

..... [2]

[Total: 8 marks]





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*Copyright Acknowledgements:*

Question 2 Fig. 4  
Question 2 Fig. 5  
Photographs A–D

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