



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
General Certificate of Education Ordinary Level

CANDIDATE  
NAME

CENTRE  
NUMBER

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CANDIDATE  
NUMBER

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**GEOGRAPHY**

**2217/23**

Paper 2

**October/November 2013**

**2 hours 15 minutes**

Candidates answer on the Question Paper.

- Additional Materials:
- Calculator
  - 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.**

**Section A**

Answer **all** questions.

**Section B**

Answer **one** question.

The Insert contains Photograph A for Question 4, Tables 1 and 2 and Fig. 9 for Question 7, and Fig. 12 for Question 8.

The Survey Map Extract and the Insert are **not** required by the Examiner.  
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

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.

For Examiner's Use	
<b>Section A</b>	
<b>Q1</b>	
<b>Q2</b>	
<b>Q3</b>	
<b>Q4</b>	
<b>Q5</b>	
<b>Q6</b>	
<b>Section B</b>	
<b>Q7</b>	
<b>Q8</b>	
<b>Total</b>	

This document consists of **32** printed pages and **1** Insert.



Section A

Answer **all** the questions in this section.

For  
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Use

1 The 1:50 000 map is of Grahamsdale, Zimbabwe.

(a) Study the area of the map shown on Fig. 1.

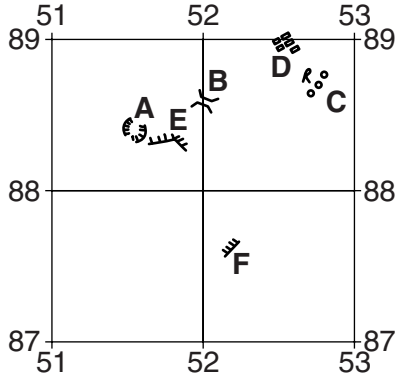


Fig. 1

(i) Identify feature **A**.

..... [1]

(ii) Identify feature **B**.

..... [1]

(iii) Identify feature **C**.

..... [1]

(iv) Identify feature **D**.

..... [1]

(v) On Fig. 1, draw the positions of the lakes formed by the dam walls **E** and **F**. [2]

(b) Give the six-figure grid reference of the 954 m spot height, to the east of Richlands, near the centre of the map.

..... [1]

(c) Give the compass direction and straight-line distance from the dam at 555908 to the dam at 520911.

Compass direction .....

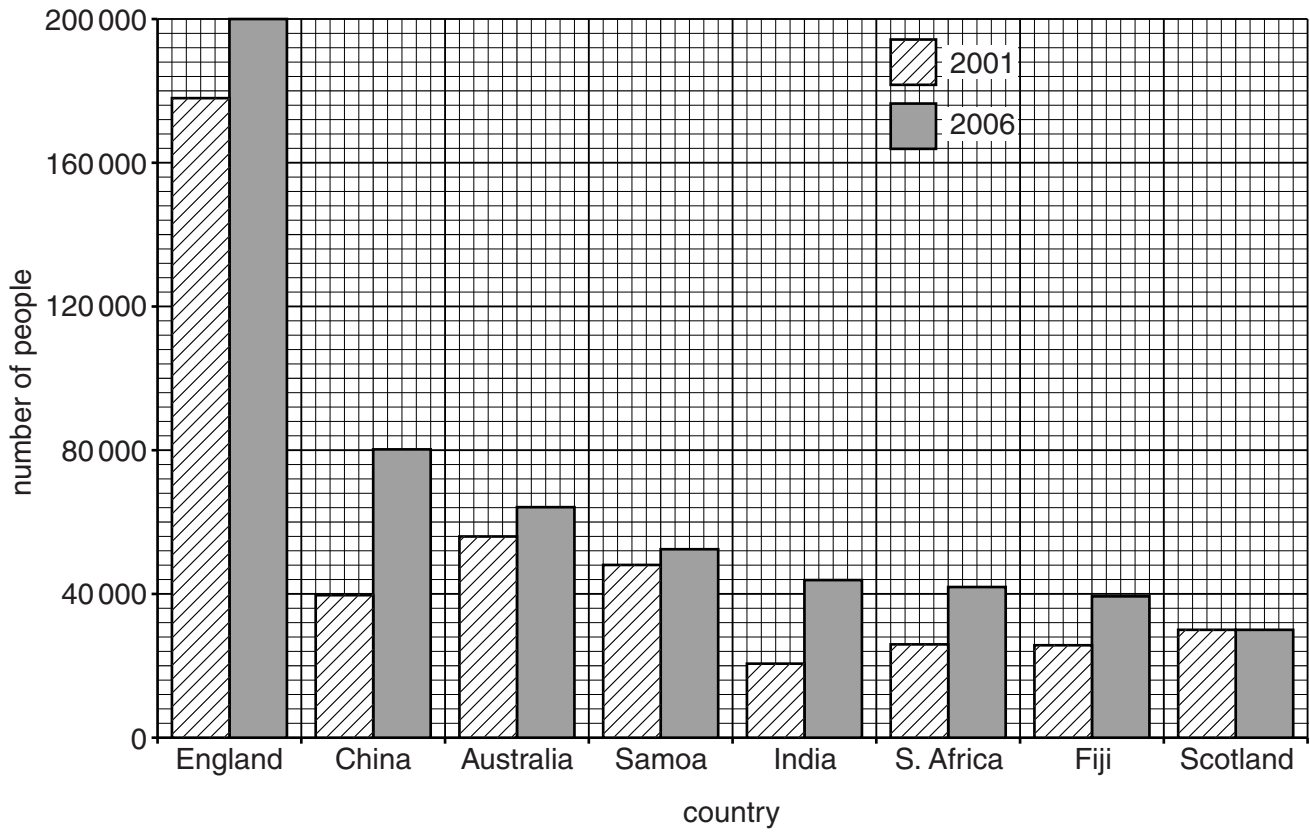
Distance ..... metres

[2]





2 Study Fig. 3 which shows the origins of the population of New Zealand who were born in another country.



**Fig. 3**

(a) On Fig. 3 the country of origin is ranked according to the 2006 data. Rank the countries according to the 2001 data beginning with the largest.

Largest .....

.....

.....

.....

.....

.....

.....

.....

[1]

(b) (i) Which country was the origin of the largest number of people in both years?

..... [1]

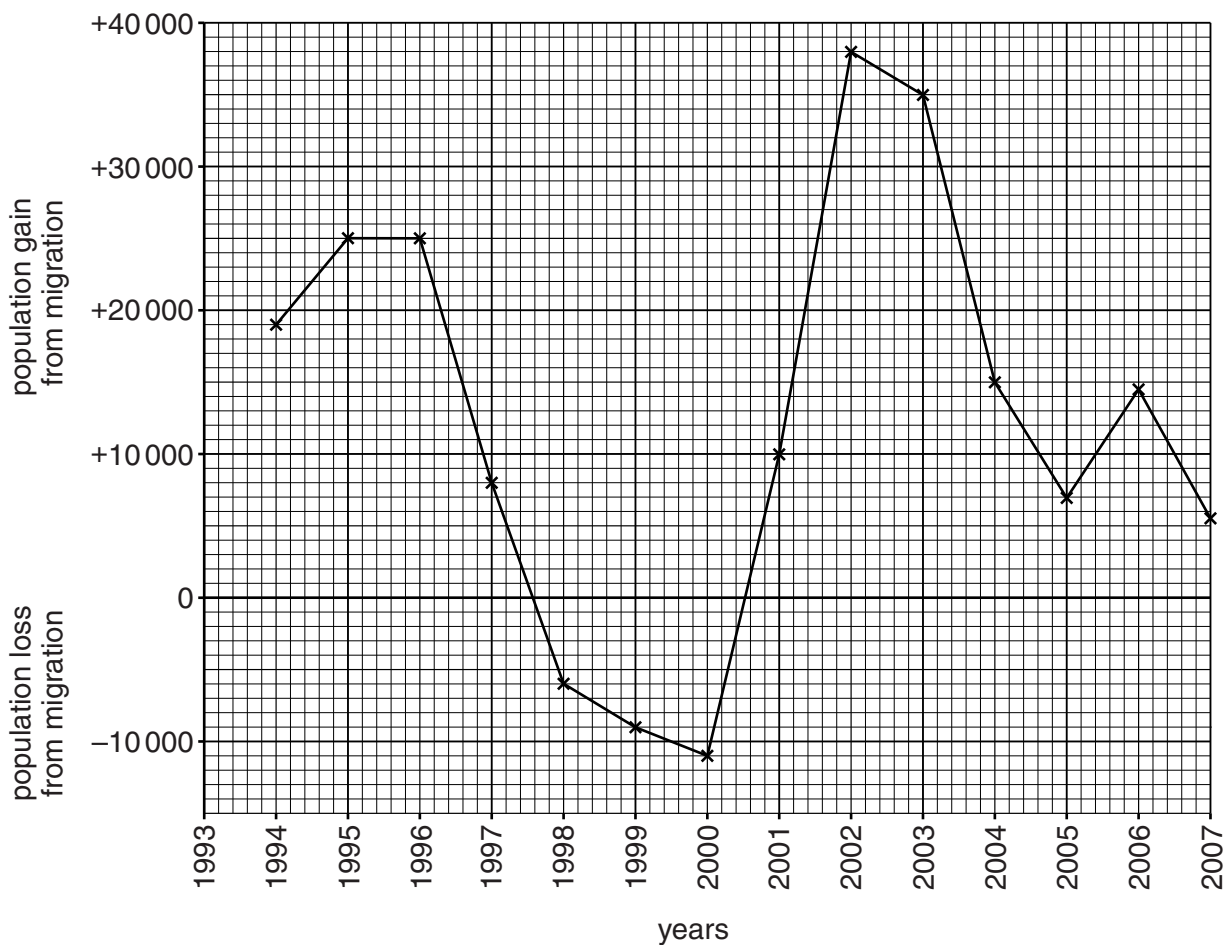
(ii) Which country provided the largest increase in numbers between 2001 and 2006?

..... [1]

(iii) Which country showed no change from 2001 to 2006?

..... [1]

(c) Study Fig. 4, which shows the annual net population change through migration for New Zealand.



**Fig. 4**

(i) Complete the graph to show that in 1993 New Zealand gained 11 000 people from migration. [1]

(ii) In which years did emigration exceed immigration?  
..... [1]

(iii) Complete the sentences. Choose from these words:

birth rate      death rate      decrease      increase

*If emigration exceeds immigration the size of the population may*

.....

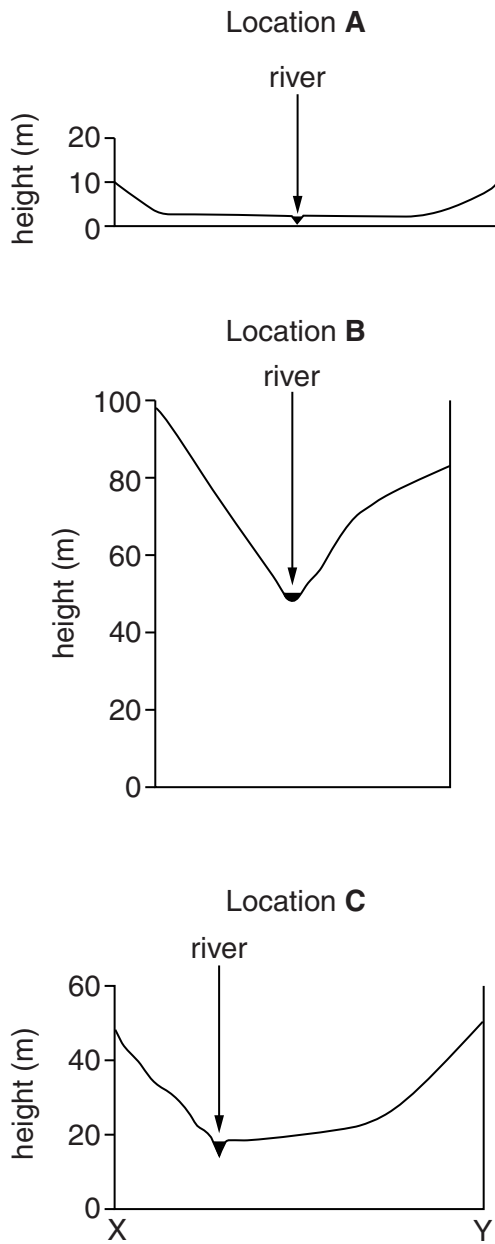
*If ..... is greater than ..... the*

*population will have a natural increase.* [2]

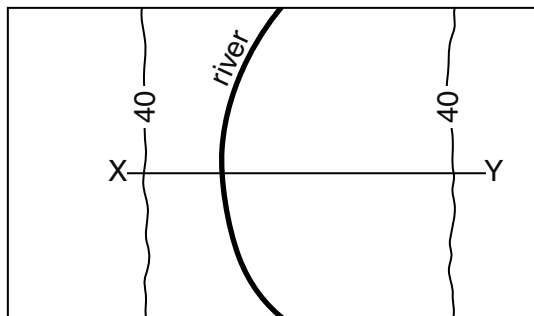
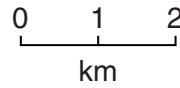
[Total: 8 marks]

- 3 Study Fig. 5A, which shows the cross-section of a river and its valley at three different locations along the river.

For  
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Use



**Fig. 5A**



**Key**  
— 40 —  
contour (metres)

**Fig. 5B**



(a) If the river was to rise above the top of the bank at each location, which would have the largest area of flooding? Give a reason for your answer.

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

(b) (i) What is the height of the river at **B**?

..... [1]

(ii) Describe the shape of the valley at **B**.

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

(c) Fig. 5B is a map of location **C**. The line of the cross-section is shown. On Fig. 5B sketch a suggested position for the 20m contour on either side of the valley. [1]

(d) Put the locations **A**, **B** and **C** in order from the source to the mouth of the river.

Source ..... Mouth [1]

[Total: 8 marks]



(b) Study Fig. 6, which shows the climate of the area shown in Photograph A.

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Examiner's  
Use

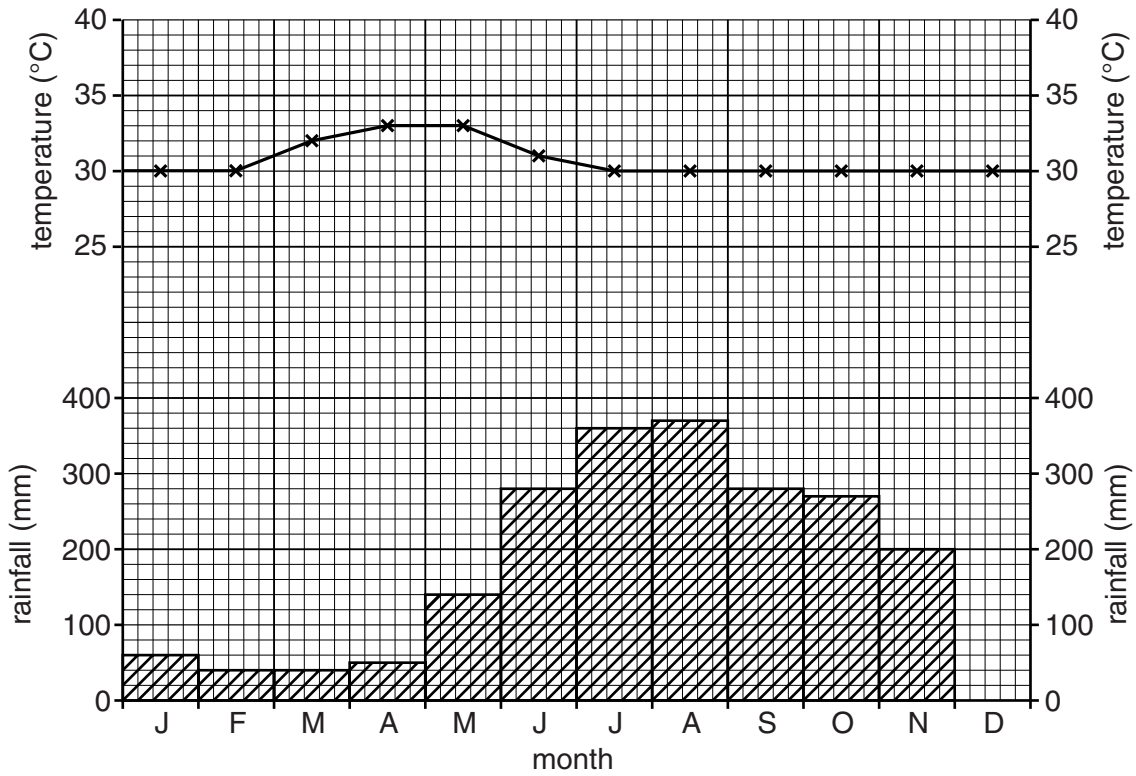


Fig. 6

(i) Complete Fig. 6 to show rainfall of 120 mm in December. [1]

(ii) Suggest why the climate shown on Fig. 6 is good for crop growth.

.....

.....

.....

..... [2]

[Total: 8 marks]

5 Study Fig. 7, which shows three linked industrial systems.

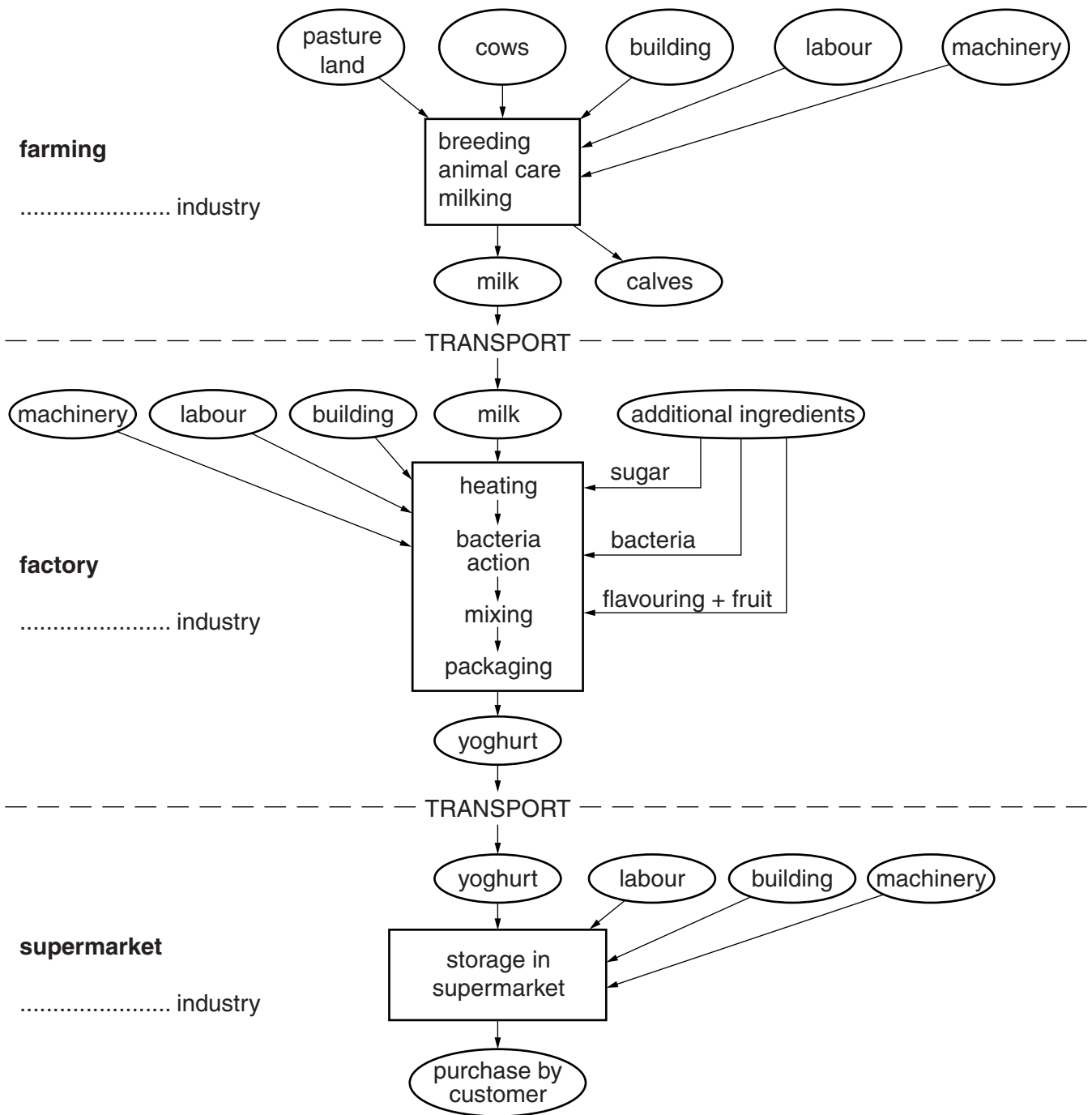


Fig. 7

(a) (i) Identify the types of industry by inserting **primary**, **secondary** and **tertiary** on the lines provided in Fig. 7. [2]

(ii) What activity links one industry to the next?  
.....[1]

(b) (i) Identify **two** outputs from the farming system shown in Fig. 7.

1 .....

2 .....[2]

(ii) Which additional ingredient is added first at the factory?  
.....[1]

(iii) Which **three** inputs are common to all three systems?  
.....[1]

(c) Circle **one** answer below to complete the sentence.

The farm shown on Fig. 7 is a

commercial arable farm      commercial mixed farm      subsistence pastoral farm [1]

[Total: 8 marks]

6 Study Fig. 8, which shows the ten biggest wheat producing countries in 2009.

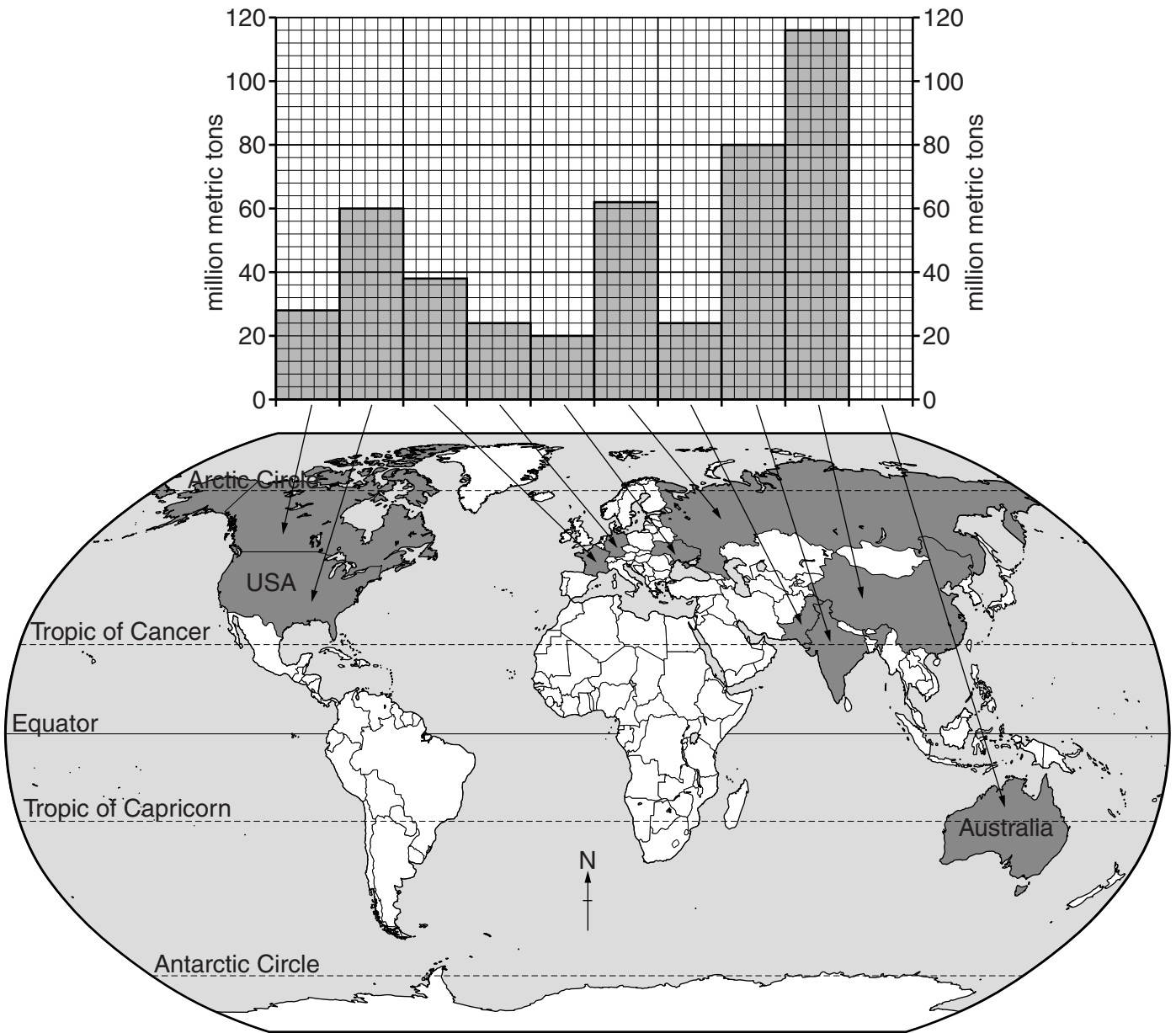


Fig. 8



**Section B**

Answer **one** question in this section.

- 7 Some students wanted to compare two shopping centres in Miraflores, an area in Lima, Peru. Larco Avenue is part of the Central Business District (CBD) and Enrique Palacios is an area of local shops in a residential district.

The students decided to test the following hypotheses:

**Hypothesis 1:** *People who use the two shopping centres buy different types of goods.*

**Hypothesis 2:** *Shoppers visiting Larco Avenue take longer to get to the shops and go there more frequently, than those visiting Enrique Palacios.*

- (a) (i) First the students had to classify the shops. Use arrows to match the statements in columns **X** and **Y** in the table below which shows examples of classification. One has been done for you.

<b>X</b>	<b>Y</b>
Laundry	Convenience shop
Not being used	Comparison shop
Furniture store	Other service
Chemist / drug store	Unoccupied shop

[2]

The students' next task was to count the different types of shops located in the two areas. Their results are shown in Table 1 (Insert).

- (ii) Suggest **two** reasons why there are unoccupied shops in the two shopping centres.

1 .....

.....

2 .....

..... [2]

- (iii) Which **two** of the following statements about different types of goods are correct? Tick (✓) your choices.

	Tick (✓)
Comparison (high order) goods are always local, fresh produce	
People travel further to buy comparison goods than convenience (low order) goods	
Comparison goods usually cost more than convenience goods	
Comparison goods are better quality than convenience goods	
Comparison goods are bought more frequently than convenience goods	

[2]



(b) Next the students used a questionnaire with some people in the shopping centres. This questionnaire is shown in Fig. 9 (Insert).

(i) Suggest **two** pieces of advice their teacher gave them about using a questionnaire with people who are shopping.

1 .....

.....

2 .....

..... [2]

(ii) Table 2 (Insert) shows the results of Question 1 in the questionnaire. Do the results shown in Tables 1 and 2 support **Hypothesis 1: People who use the two shopping centres buy different types of goods?**

Use evidence from Tables 1 and 2 to support your answer.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]

- (c) To investigate **Hypothesis 2: Shoppers visiting Larco Avenue take longer to get to the shops and go there more frequently, than those visiting Enrique Palacios**, the students asked Questions 2 and 3 in their questionnaire.

For  
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Use

- (i) Table 3 below shows the results of Question 2 in the questionnaire.

**Table 3**

**Answers to Question 2  
(How long did your journey from home to the shops take?)**

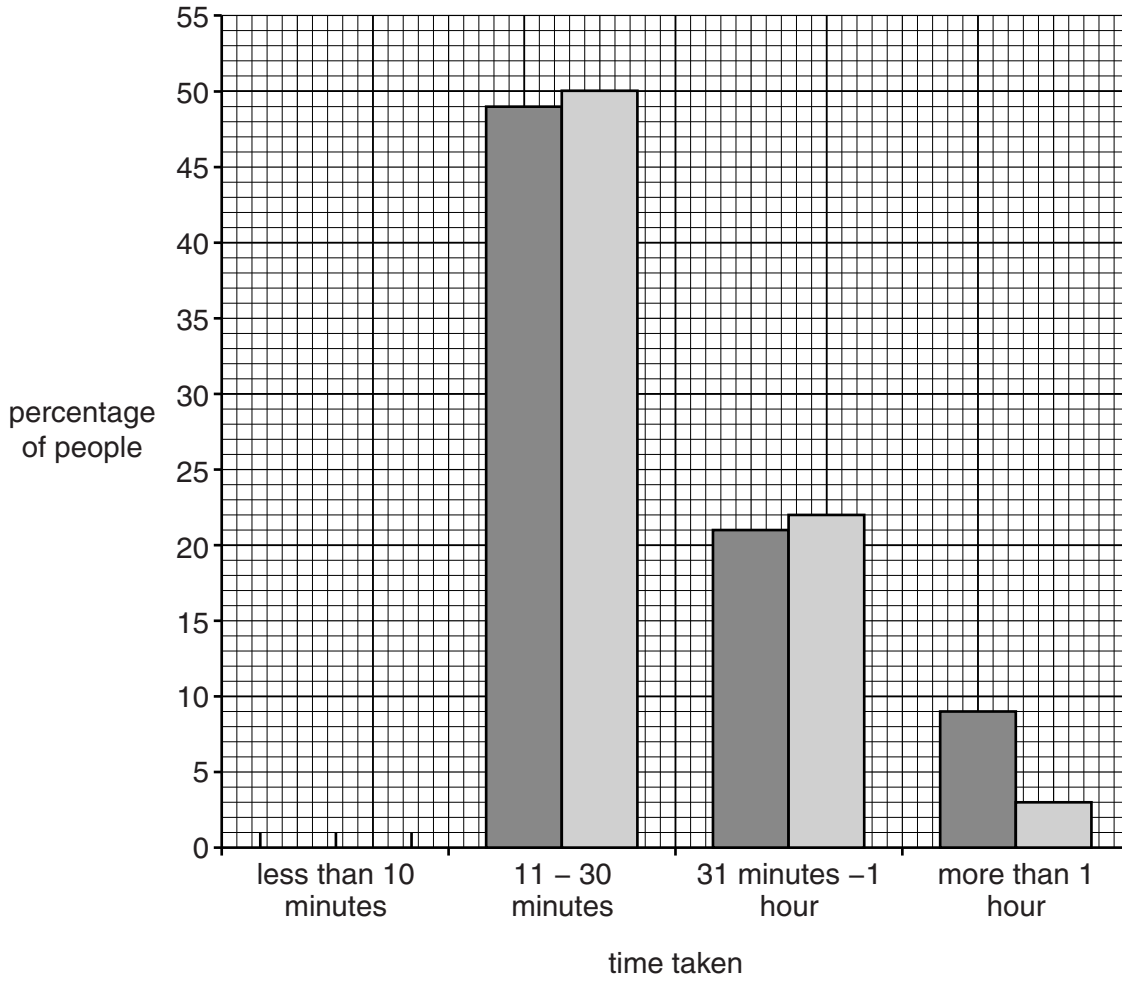
Time taken	Larco Avenue (CBD)	Enrique Palacios (Local shops)
	%	%
Less than 10 minutes	21	25
11 to 30 minutes	49	50
31 minutes to 1 hour	21	22
More than 1 hour	9	3

Use the results from Table 3 to complete the graph in Fig. 10 below.

[2]

For  
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Use

**Answers to Question 2**



**Key**

- Larco Avenue (CBD)
- Enrique Palacios (Local shops)

**Fig. 10**

(ii) Table 4 below shows the results of Question 3 in the questionnaire.

For  
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Use

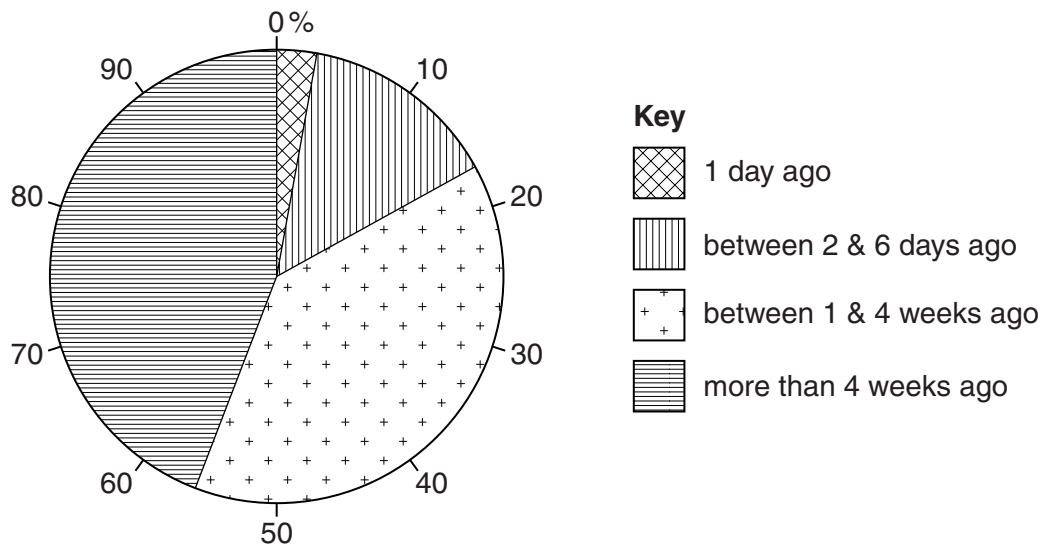
**Table 4**  
**Answers to Question 3**  
**(When was your previous visit to these shops?)**

	Larco Avenue (CBD)	Enrique Palacios (Local shops)
	%	%
1 day ago	3	28
Between 2 & 6 days ago	15	50
Between 1 & 4 weeks ago	38	22
More than 4 weeks ago	44	0

Use the results from Table 4 to complete the pie chart for Enrique Palacios in Fig. 11B opposite. [2]

**Answers to Question 3**

**Larco Avenue (CBD)**



**Fig. 11A**



- (d) One student thought that answers to the question: 'How long did your journey from home to the shops take?' might be affected by the type of transport which people used. The students then included an extra question (Question 4) in their questionnaire. The results of Question 4 are shown in Table 5 below.

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Use

**Table 5**

**Answers to Question 4  
(How did you travel to the shopping centre today?)**

	Larco Avenue (CBD)	Enrique Palacios (Local shops)
	%	%
Walk	8	28
Car	36	22
Taxi	20	22
Bus	36	28

- (i) Use the answers to Question 4 to compare the percentage of people who walked and travelled by car to the two shopping centres.

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

- (ii) How might the answers to Question 4 change the students' conclusion to **Hypothesis 2**: *Shoppers visiting Larco Avenue take longer to get to the shops and go there more frequently, than those visiting Enrique Palacios?*

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

- (iii) Suggest **three** factors which may affect people's method of travel to shopping centres.

1 .....  
.....  
2 .....  
.....  
3 .....  
..... [3]

- (e) To extend the investigation one student included the following question in her questionnaire:  
'In which district of the city do you live?'

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Suggest a suitable map to show the results of this question and describe how you would draw this map.  
You may use a diagram in your answer.

.....

.....

.....

.....

.....

.....

.....

[3]

[Total: 30 marks]



8 Students who lived on a Mediterranean island carried out fieldwork at two local beaches. Cala Blanca is a pebble beach in a bay surrounded by cliffs and Cala Bassa is a long, straight sandy beach.

(a) Before they began their fieldwork their teacher reminded them of the need to be safe near the sea. Suggest **three** safety precautions that the students could take to reduce the risk of accident.

- 1 .....
- .....
- 2 .....
- .....
- 3 .....
- ..... [3]

In studying the two different beaches the students tested the following hypotheses:

**Hypothesis 1:** *The pebble beach has a steeper profile than the sandy beach.*

**Hypothesis 2:** *The size of beach material gets bigger away from the sea.*

(b) To investigate **Hypothesis 1** the students used a rope to make a transect line from the edge of the sea to the top of the beach. They then measured the different angles of slope. Fig. 12 (Insert) is a diagram which shows their method.

(i) Describe how the students measured the beach profile.

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

(ii) The results of the measurements on both beaches are shown in Fig. 13, opposite.

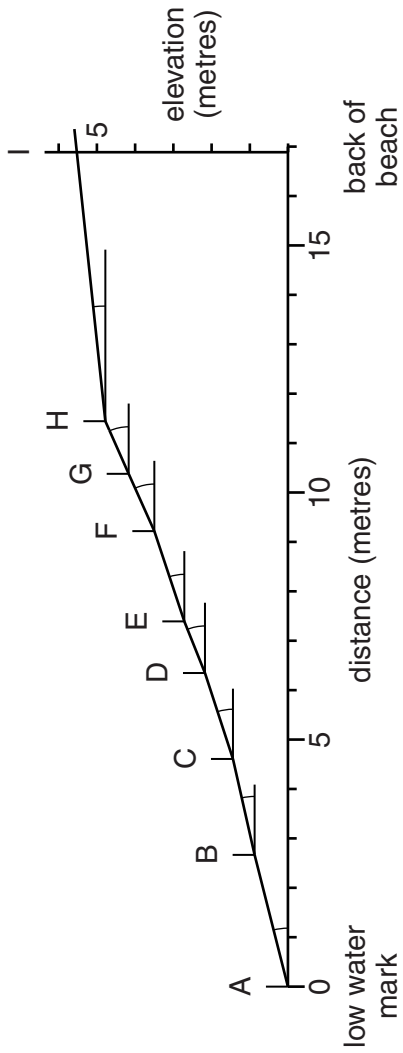
Use these results to compare the width of the two beaches.


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

(iii) What conclusion could the students reach about **Hypothesis 1: *The pebble beach has a steeper profile than the sandy beach?*** Support your answer with evidence from Fig. 13.

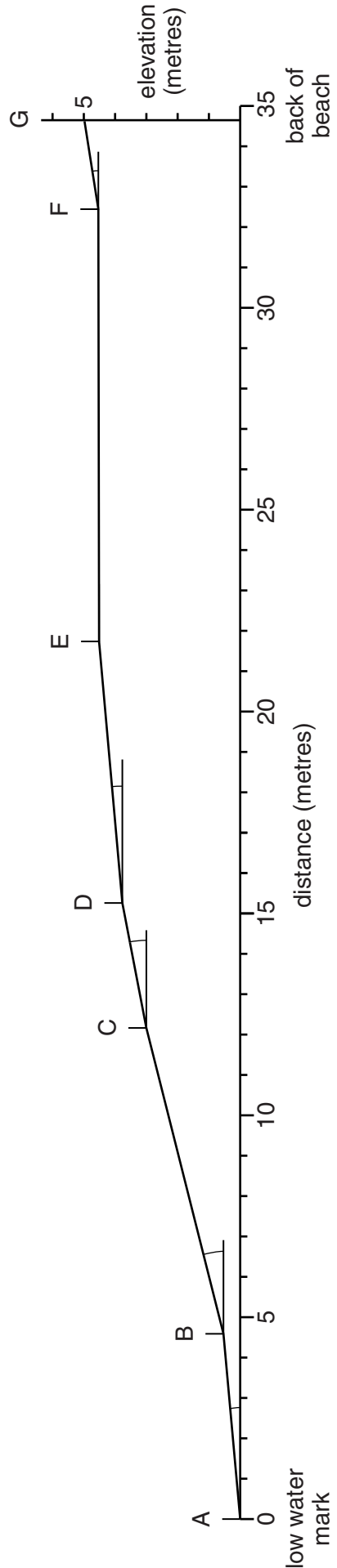
.....  
.....  
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.....  
.....  
.....  
.....[4]

**Cala Blanca beach (pebble beach)**



**Key**  
 A-B section of beach profile  
 slope measured

**Cala Bassa beach (sandy beach)**



**Fig. 13**

- (c) To investigate **Hypothesis 2: The size of beach material gets bigger away from the sea**, the students used a quadrat to estimate the percentage of different beach material in each section of their beach profiles.

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Use

Their results are shown in Tables 6 and 7, below.

**Table 6**

**Beach material at Cala Blanca beach**

Section of beach profile	Types of beach material and size (%)			
	Sand (Less than 2 mm)	Shingle (2 – 20 mm)	Pebble (21 – 100 mm)	Cobble (101 – 500 mm)
A – B	0	76	24	0
B – C	0	64	28	8
C – D	0	64	36	0
D – E	0	48	40	12
E – F	0	16	68	16
F – G	0	4	76	20
G – H	0	8	80	12
H – I	0	0	80	20

**Table 7**

**Beach material at Cala Bassa beach**

Section of beach profile	Types of beach material and size (%)			
	Sand (Less than 2 mm)	Shingle (2 – 20 mm)	Pebble (21 – 100 mm)	Cobble (101 – 500 mm)
A – B	100	0	0	0
B – C	88	12	0	0
C – D	96	4	0	0
D – E	100	0	0	0
E – F	100	0	0	0
F – G	84	16	0	0

(i) Describe how the students used the quadrat to collect this data.

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

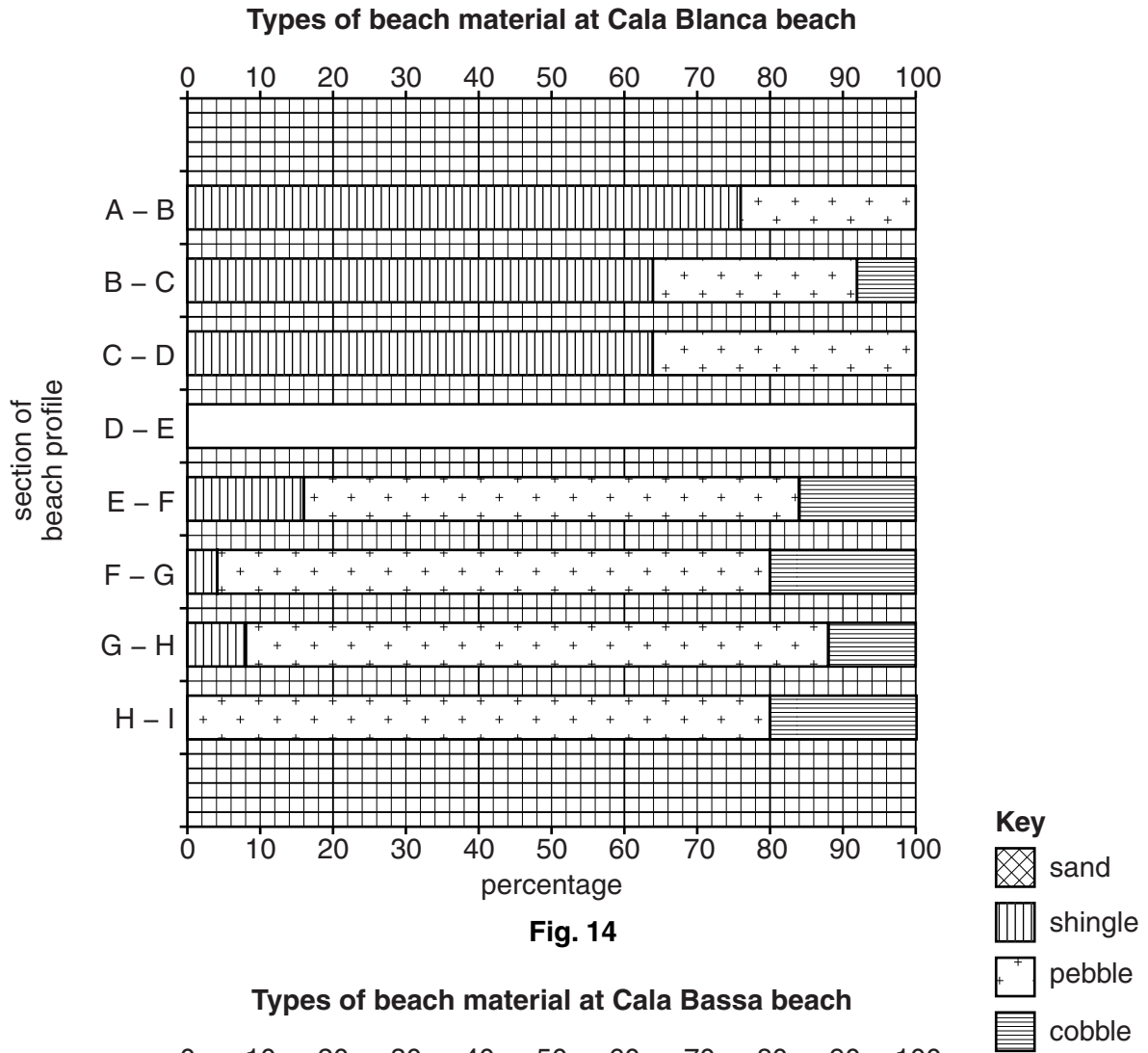
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(ii) Suggest **one** problem of classifying beach material into sand, shingle, pebble or cobble.

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

(iii) Use Table 6 to complete the divided bar graph for section D – E on Cala Blanca beach in Fig. 14 below. [3]

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**Fig. 15**

- (iv) Do the results of the fieldwork support **Hypothesis 2: *The size of beach material gets bigger away from the sea?*** Support your decision about both beaches with data from Tables 6 and 7 and Figs 14 and 15.

Cala Blanca beach

.....  
.....  
.....  
.....

Cala Bassa beach

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

- (v) Explain why the size of beach material varies along the beach profile between low water mark and the back of Cala Blanca beach.

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

(d) (i) Suggest a hypothesis to investigate longshore drift.

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

(ii) Describe how the students could investigate this hypothesis.

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

[Total: 30 marks]

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*Copyright Acknowledgements:*

Question 4 Photograph A      © S Bird © UCLES.  
Question 6                      © www.eduplace.com.  
Map Extract                    © Shamva (Zimbabwe); Zimbabwe Government; 1989.

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