UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Ordinary Level
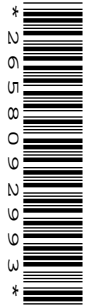
CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

GEOGRAPHY **2217/02**

Paper 2 **October/November 2008**

2 hours 15 minutes

Candidates answer on the Question Paper.

Additional Materials: Calculator
Ruler

1:25 000 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.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.
Insert 1 contains Photographs A and B for Question 4. Insert 2 contains Fig. 10 for Question 6 and Table 2 for Question 7.
The Survey Map Extract and the Inserts 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.

For Examiner's Use	
Section A	
Q1	
Q2	
Q3	
Q4	
Q5	
Section B	
Q6	
Q7	
Total	

This document consists of **24** printed pages, **4** blank pages and **2** Inserts.

UNIVERSITY *of* CAMBRIDGE
International Examinations

[Turn over

Section A

Answer **all** questions in this section.

1 Study the 1: 25 000 map of part of the island of St Lucia, in the Caribbean.

(a) In which grid square does most of the settlement of Gros Islet lie? [1]

(b) Fig. 1 shows a grid of an area on the map extract. Find this area on the map extract before answering the questions which follow.

Key

⌒— surfaced road

Fig. 1

   (i) What features can be found at:

   A (124501 on the map); ....

   B (113514 on the map)? ....[2]

   (ii) How far is it in a straight line from **A** to **B**? ....km. [1]

   (iii) In which direction is **B** from **A**? .... [1]

(iv) Describe the physical landscape you would see on a journey **by road** from

....

....

....

....

....

....[3]

(c) Describe the coastal features that would be seen on a journey **by boat** from the southern end of Réduit Beach (126554) to Cuti Cove (grid square 1054).

....

....

....

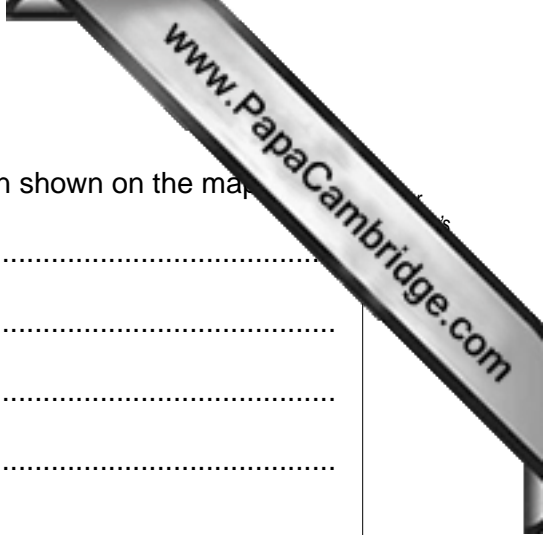...

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....

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....[5]

(d) State **two** pieces of map evidence, giving a grid reference in each case, to show that Réduit (1255) is a tourist area.

1 ....

2 ....[2]

(e) Describe the distribution of areas of Cultivation and Plantation shown on the map.

....

....

....

....

....

....[3]

(f) Choose **one** of the areas of Cultivation and Plantation. Use map evidence to suggest why that area is being used in this way.

Grid square of area selected ....

Evidence to explain why that area is being used in this way.

....

....

....

....[2]

[Total: 20 marks]

5

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2 Study Fig. 2, which shows the location of some of the world's largest cities.

Fig. 2

(a) Using Fig. 2, describe the distribution of these large cities.

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....[4]
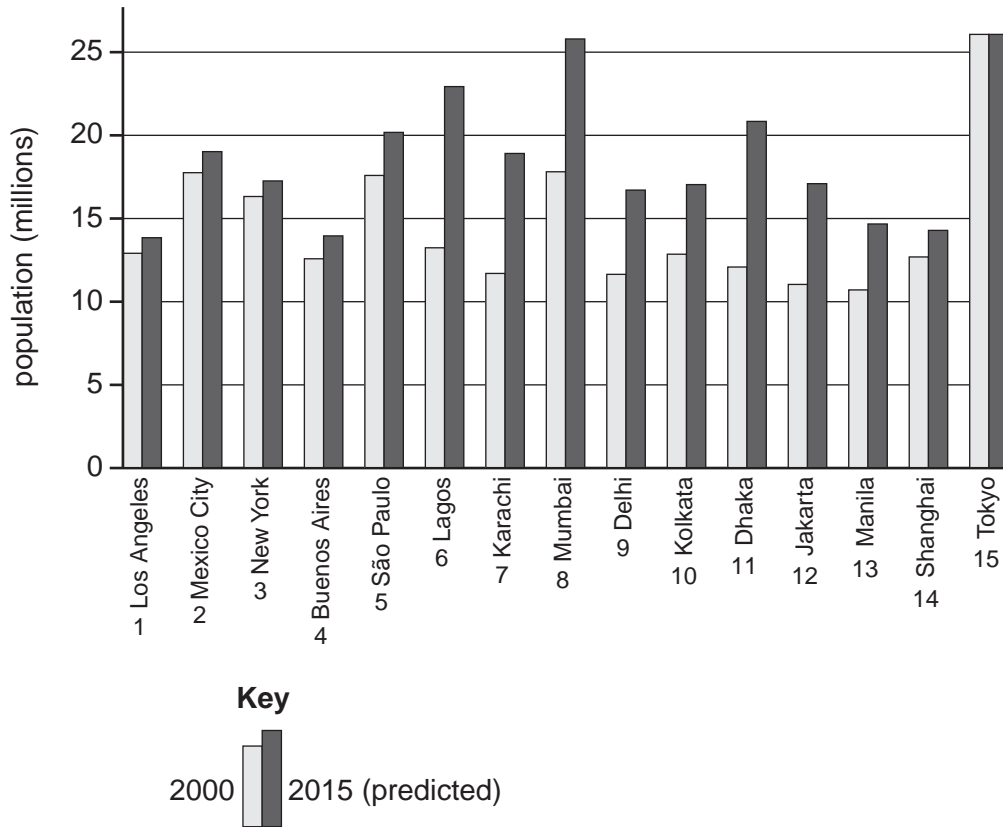
Key

2000 ▯▮ 2015 (predicted)

Fig. 3

(b) Study Fig. 3, which shows the names of the cities marked on Fig. 2, along with their populations in 2000 and their predicted populations in 2015.

Name the cities with more than 15 million people in 2000.

....

....[2]

(c) Identify **three** cities (other than Mumbai) which are expected to grow by more than five million people between 2000 and 2015. Mark these three cities with circles on the map, Fig. 2. Mumbai has been marked for you. [3]

[Total: 9 marks]

3 **(a)** A survey has been carried out across the world into people's satisfaction with the ....
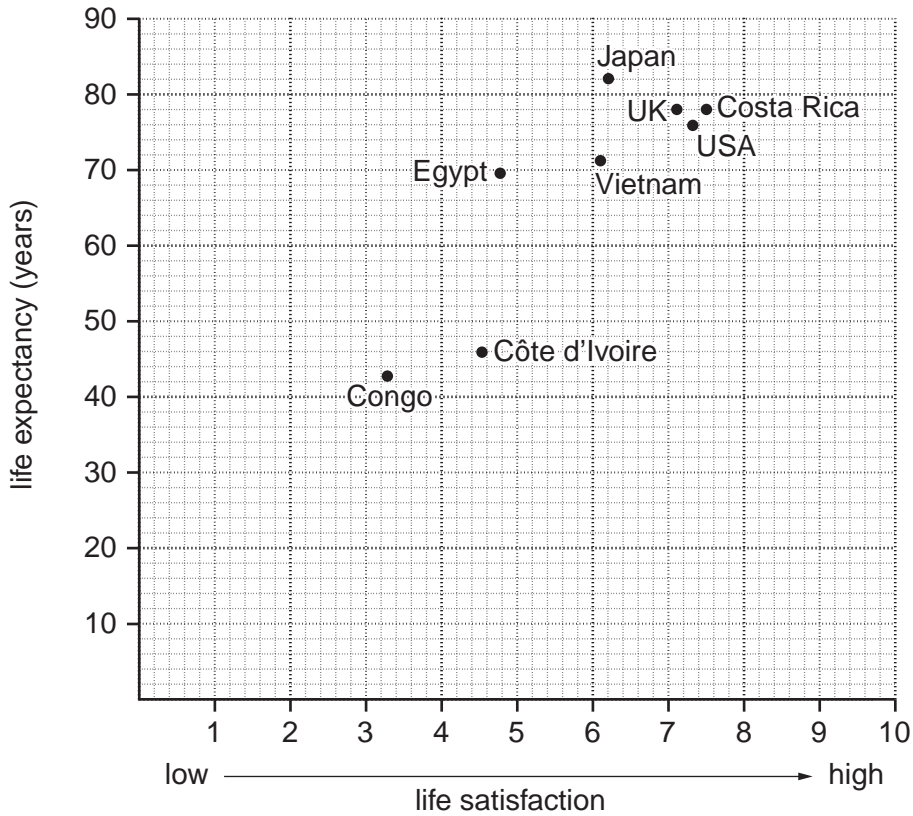The results for eight countries are shown in Fig. 4, along with the life expectancy ....
these same countries.

Fig. 4

(i) Complete the graph using the figures below for India.

Country	Life expectancy	Life satisfaction
India	63	5.4

[2]

(ii) Which country has the:

highest life expectancy; ....

highest life satisfaction? ....[1]

(iii) Use the information on Fig. 4 to complete the blanks in the passage below.

In general, the graph shows that the higher the life expectancy of a country, the

.... is the life satisfaction. For example .... is much lower

on both scales than Vietnam. However Côte d'Ivoire and .... have very

similar levels of satisfaction but very different life expectancies. Costa Rica has a

higher life satisfaction than Japan but its life expectancy is .... years

(b) Study Fig. 5, which shows life expectancy compared with use of resources per [person]. Use of resources includes land, minerals, and water and is sometimes referred to [as an] 'environmental footprint'.
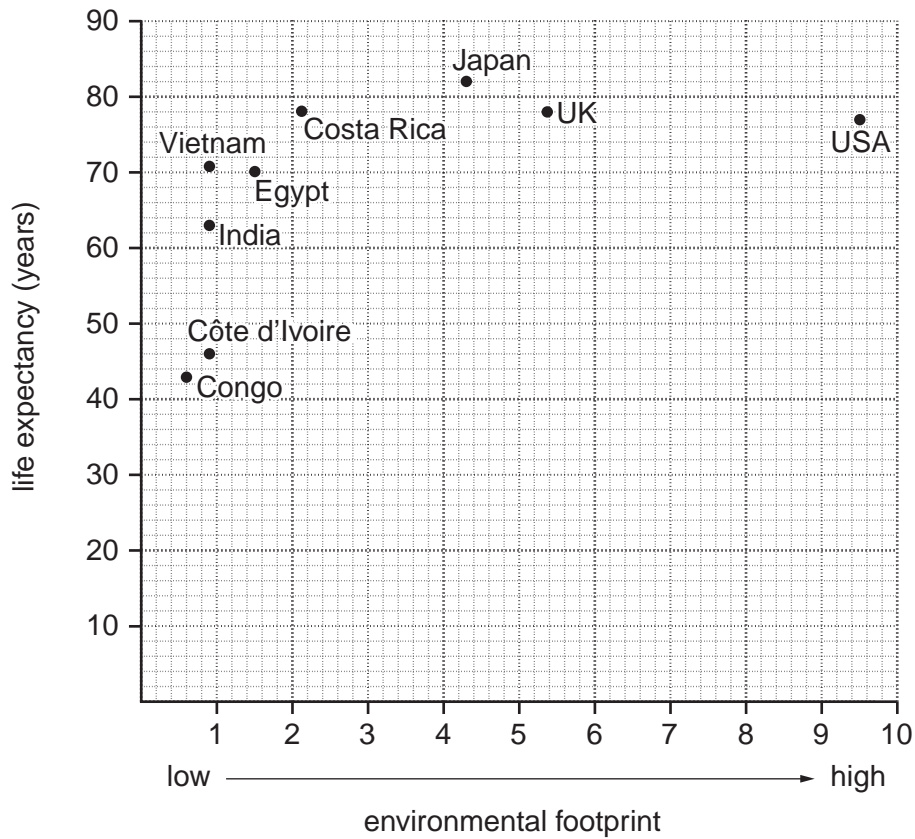

Fig. 5

(i) Complete the rank order of countries in Fig. 5 for their 'environmental footprint'.

Highest   1   ....

2   UK..

3   ....

4   ....

5   Egypt...

6=   Vietnam...

6=   India..

6=   Côte d'Ivoire....................................

Lowest   9   Congo...   [1]

(ii) Costa Rica has a similar life expectancy to that of the USA but they ha............ different environmental footprints. Suggest reasons for this difference.

....

....

....

....

....

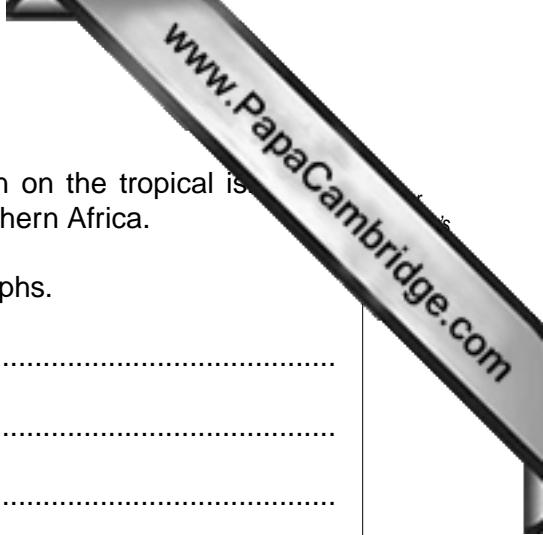...[3]

[Total: 11 marks]

4 Study the two photographs in Insert 1. Photograph A was taken on the tropical is...
Mauritius. Photograph B was taken in Botswana, a country in southern Africa.

(a) Compare the physical landscapes shown in the two photographs.

....

....

....

....

....

....[4]

(b) For each photograph, name **one** process of weathering that could be taking place.

Photograph A ....

Photograph B ....[2]

(c) Suggest reasons for the differences in the landscapes.

....

....

....

....

....

....[3]

[Total: 9 marks]

5 Study Fig. 6, which shows sources of power for producing electricity in four countr[...] total production figures are given in thousands of gigawatts per hour (Gw/h).
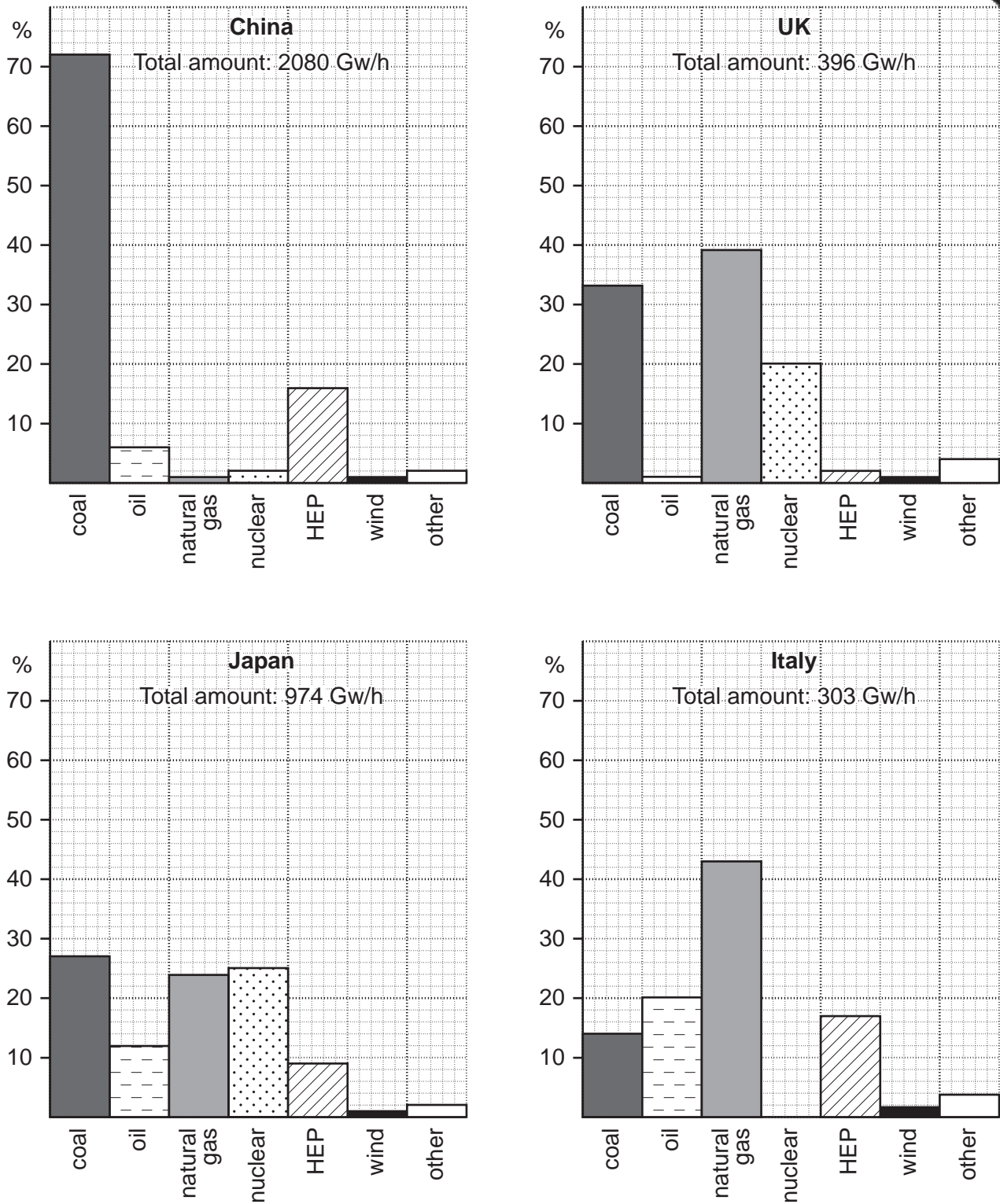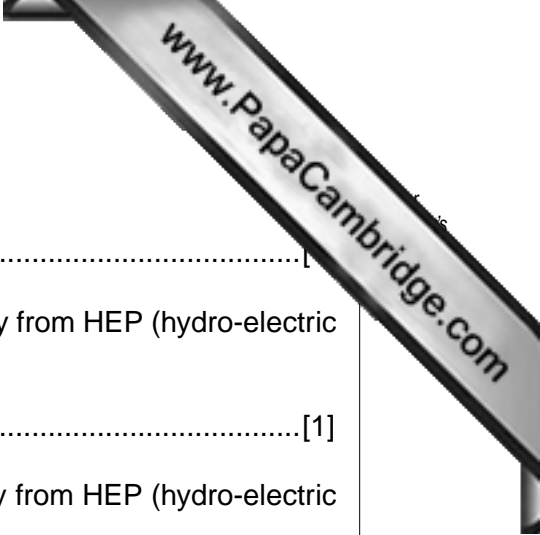

Fig. 6

(a) Which country produces the most electricity?

....[

(b) (i) Which country has the largest **proportion** of its electricity from HEP (hydro-electric power)?

....[1]

(ii) Which country produces the largest **amount** of electricity from HEP (hydro-electric power)?

....[1]

(c) Compare the sources of power used for producing electricity in Japan and China.

....

....

....

....

....

....[3]

(d) Which sources of power shown on Fig. 6 are renewable?

....

....[2]

(e) One third of the people in the world have no access to electricity.
What is likely to be their main source of energy?

....[1]

(f) Many countries are trying to increase the amount of electricity produced from renewable sources.
Describe **two** advantages of using renewable energy to produce electricity in tropical countries.

....

....

....

....[2]

[Total: 11 marks]

Section B

Answer **one** question in this section.

6   Students were studying the range and sphere of influence of services in their settlement. They decided to investigate the local Market Hall and the Sports Centre. The aim of the fieldwork was to find which service had the greater range and sphere of influence.

(a) Study Fig. 7, which shows information about the Market Hall and the Sports Centre.

<div style="border:1px solid black">

Market Hall

- Sells local fruit and vegetables
- Some clothes and electrical items sold
- Open Monday to Saturday
- 08.00–16.00 hours

</div>

<div style="border:1px solid black">

Sports Centre

- Activities include baseball, basketball, football, tennis
- Open 7 days a week
- 08.00–19.00 hours

</div>

Fig. 7

The teacher gave the students two hypotheses for the investigation:

- *'Visitors to the Market Hall live locally and walk there'.*

- *'Visitors to the Sports Centre live far away and come by car'.*

The teacher wanted the students to outline the reasons for the hypotheses.
Complete the following statement by selecting from the words below.

cheap	work	longer	frequently	open	high

Visitors to the Market Hall will buy fruit and vegetables at a .... price.

These will be bought ....

Visitors to the Sports Centre may come when not at .... and

will be prepared to travel longer distances to use the facilities because it is

.... every day.   [2]

(b) A simple questionnaire was used to find out where the visitors lived and what tr̶a̶ they used to visit the Market Hall and the Sports Centre.

(i) On Fig. 8, suggest the layout and wording of the question to find out the method of transport used by visitors. You should include possible options.   [3]

Method of transport question

Fig. 8

(ii) The students used systematic sampling for the questionnaire.
What is *systematic sampling*?

....

....[1]

(iii) State **two** advantages of systematic sampling.

Advantage 1 ....

....

Advantage 2 ....

....[2]

(c) Table 1 shows the results of the method of transport question for both the Mar̶̶̶̶
and the Sports Centre.

Table 1

Market Hall				Sports Centre		
(results of 225 visitors)	Method of transport	%		(results of 100 visitors)	Method of transport	%
	bicycle	20			bicycle	20
	bus	31			bus	20
	car	17			car	56
	walking	32			walking	4

Use Table 1 to complete the proportional bar graph for the Market Hall to show the
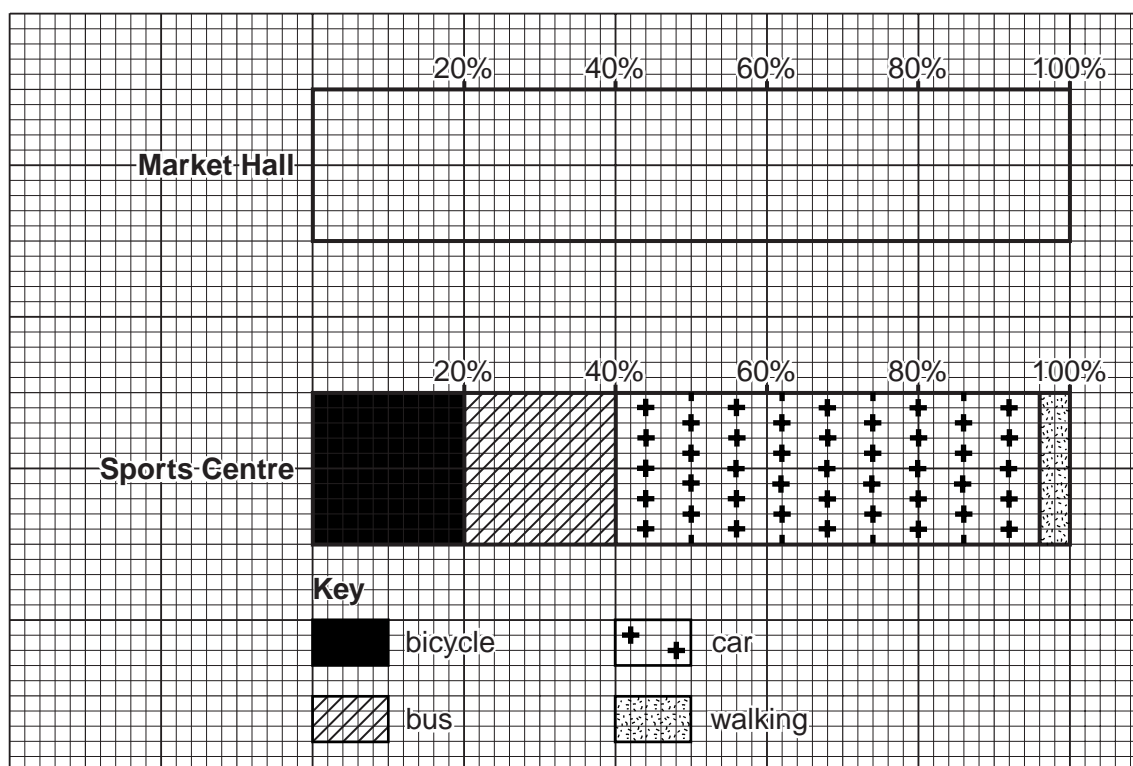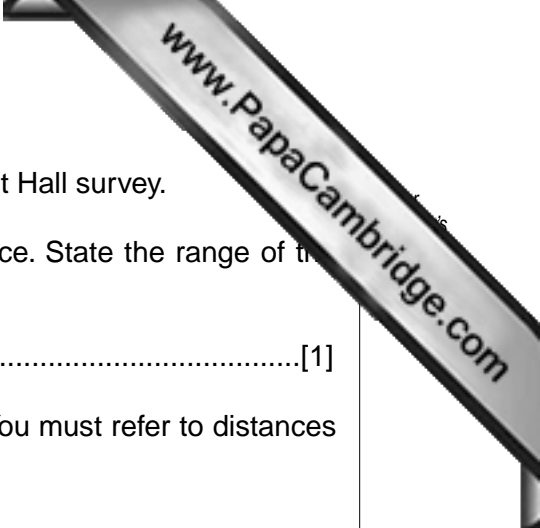methods of transport used by the visitors (Fig. 9). [4]

Fig. 9

(d) Study Fig. 10 (Insert 2), which shows the results of the Market Hall survey.

(i) The *range* is the maximum distance travelled to a service. State the range of the Market Hall.

....[1]

(ii) Describe the pattern of results for **each** transport type. You must refer to distances from the Market Hall.

bicycle ....

....

....

bus ....

....

....

car ....

....

....

walking ....

....

....[4]

(iii) Suggest **two** reasons for this pattern.

Reason 1 ....

....

....

Reason 2 ....

....

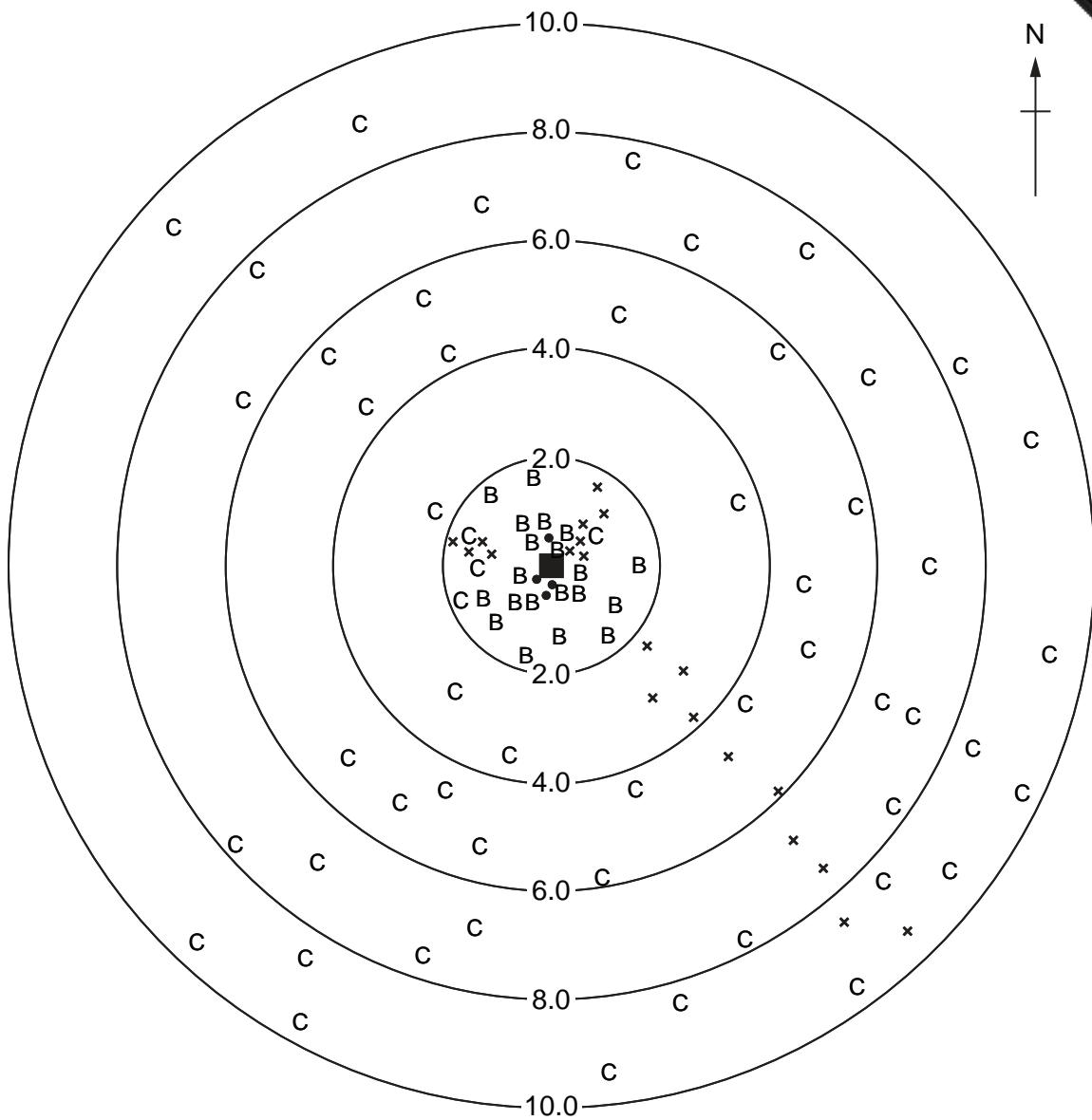...[2]

Sphere of influence of Sports Centre

Key

Residence and method of transport to
the Sports Centre

B   bicycle
×   bus
C   car
•   walking

■   Sports Centre

2.0 ‿ km   distance from
            Sports Centre

Fig. 11

(e) Study Fig. 11, which shows the results of the Sports Centre survey. The range of the Sports Centre is 9.6 km.

(i)   Sketch the sphere of influence for the Sports Centre on to Fig. 11.   [1]

(ii) The students noticed there was a lack of visitors from the west of the .... Centre. Explain fully how physical or social factors may affect the size and shape .... a sphere of influence of any service.

....

....

....

....

....

....

....

....[4]

(f) Quoting evidence from Figs 9, 10 and 11, write a conclusion to this investigation by commenting on the aim of the fieldwork and the two hypotheses.

Aim of fieldwork – to find which service had the greater range and sphere of influence

Two hypotheses –

- *'Visitors to the Market Hall live locally and walk there'.*

- *'Visitors to the Sports Centre live far away and come by car'.*

....

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....[6]

[Total: 20 marks]

7 Students recorded the rainfall and wind direction for 14 days at their school in Septem...
The school is located to the east of the coast and at an altitude of 400 m.
The hypothesis for the investigation was:

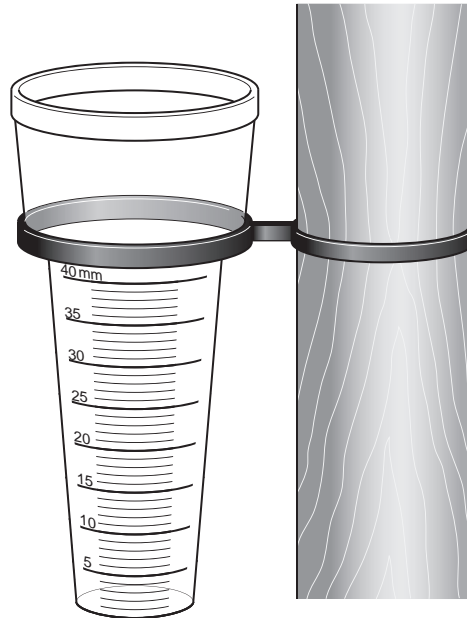*'The school receives more rainfall when wind comes from the west'.*

Fig. 12

(a) Study Fig. 12, which shows a low-cost rain gauge. The teacher fixed it to a fence post so that it was accessible for the students but secure.

(i) How is this instrument different from a traditional rain gauge?

....

....

....[1]

(ii) Explain how the rain gauge should be used to measure the rain each day. Write the numbers 1–4 in the instruction box below to show the correct order for accurate measurements to be made. [2]

Instructions about how to measure rainfall each day:

Order:

.... Observe carefully how many mm of water in the cylinder

.... At 8.00 every day go to the rain gauge

.... Empty the cylinder of water

.... Record the amount of water on your recording sheet

(iii) Table 2 (Insert 2) shows the rainfall results. Describe the most appropriate [graph]
type to use to represent this data. You should suggest labels for the axes o[f the]
graph.

....

....

....

....[2]

(b) The wind direction was measured using a wind vane fixed to the school roof (Fig. 13).
Complete the sentence in each box about the wind vane. [4]

The paddle is wide because

....

....

....

....

....

....

The arrow shows

....

....

....

....

....

....

It is on the roof because

....

....

....

....

These letters represent

....

....

....
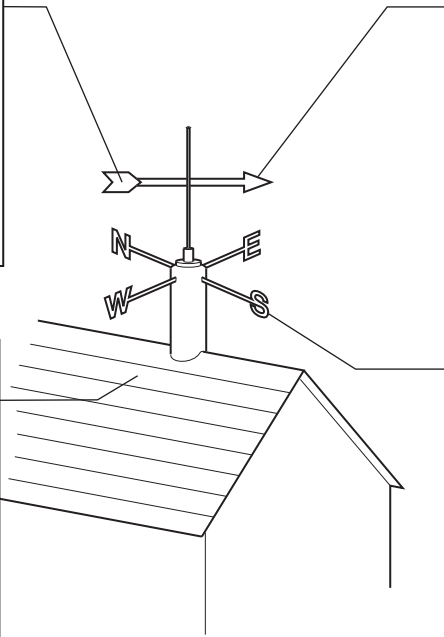
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Fig. 13

(c) Re-read the hypothesis for the investigation:

'The school receives more rainfall when wind comes from the west'.

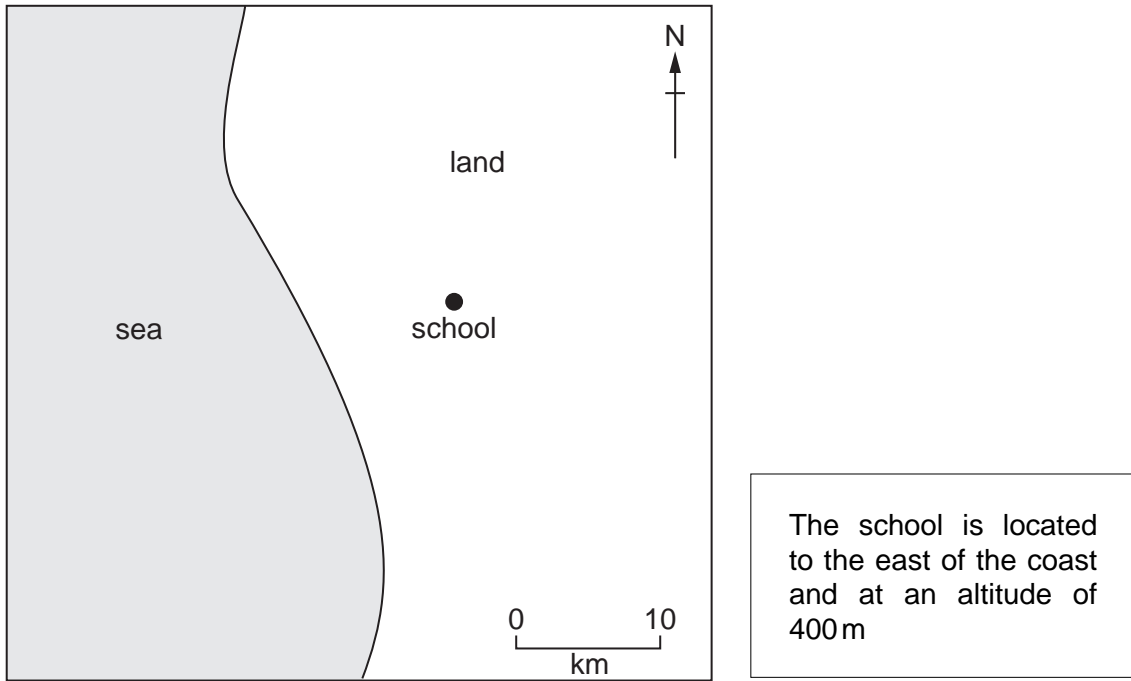Study Fig. 14, which shows a sketch map of the location of the school.

N

land

sea

● school

0   10
km

The school is located
to the east of the coast
and at an altitude of
400 m

Fig. 14

In detail, explain why wind from the west may bring rain to this school.

....

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....[4]

Wind rose for September

Fig. 15

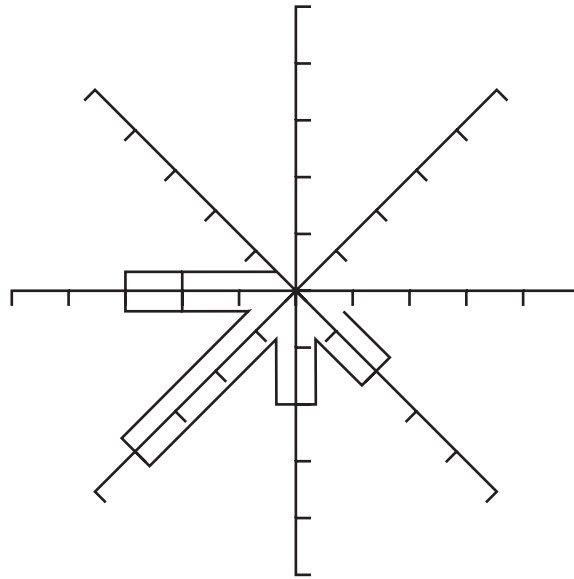**(d) (i)** Study Fig. 15, which shows a partly completed wind rose. Complete the wind rose for the east (E) and north (N) directions using the results shown in Table 2 (Insert).

[2]
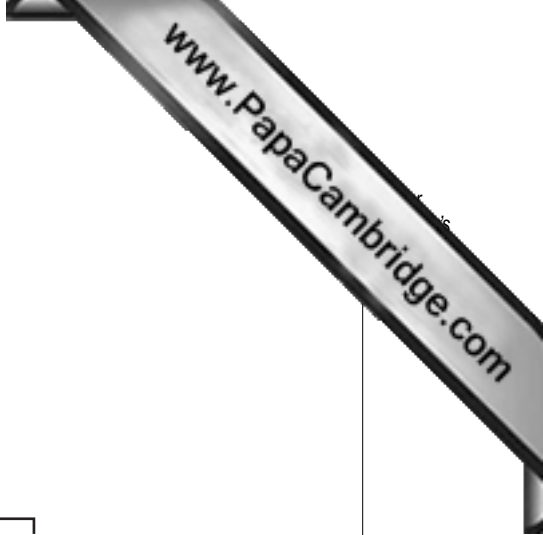
(ii) The prevailing wind direction is south-west (SW).

What is a *prevailing wind*?

....

....[1]

(iii) Describe the pattern of wind direction shown by the wind rose (Fig. 15).

....

....

....

....

....

....[3]

(e) The students linked the rainfall data and wind direction results by drawing a graph (Fig. 16).

Fig. 16

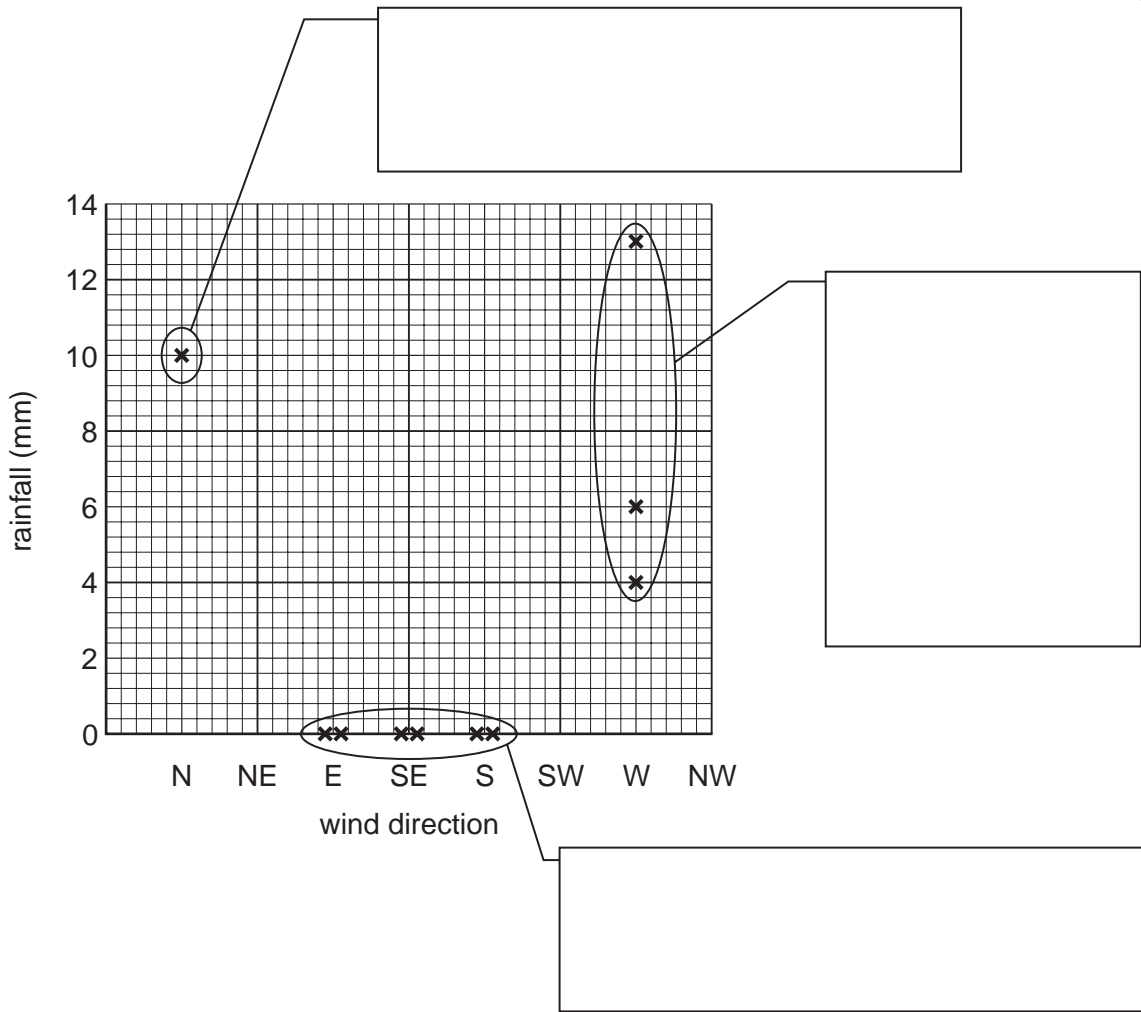**(i)** Complete the graph by adding the results for south-west (SW) winds from Table 2 (Insert). [2]

(ii) Comment on the pattern of the results by completing the boxes on Fig. 16. [3]

(iii) The hypothesis for this investigation was:

'The school receives more rainfall when wind comes from the west'.

Does this data support the hypothesis of the investigation? Circle your decision. [1]

YES   TO SOME EXTENT   NO

(f) In detail, suggest how this weather investigation could be improved and exte[n] make it more reliable and representative.

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....[5]

[Total: 30 marks]

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