



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

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GEOGRAPHY

0460/21

Paper 2

May/June 2014

1 hour 30 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
 Protractor
 Plain paper
 Calculator

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 an HB pencil for any diagrams or graphs.

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

DO NOT WRITE IN ANY BARCODES.

Answer **all** questions.

The Insert contains Photographs A and B for Question 3, and Photograph C for Question 4.

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.

The syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

This document consists of **15** printed pages, **1** blank page and **1** Insert.

1 Study the map extract for Bindura Township, Zimbabwe. The scale is 1:50 000.

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

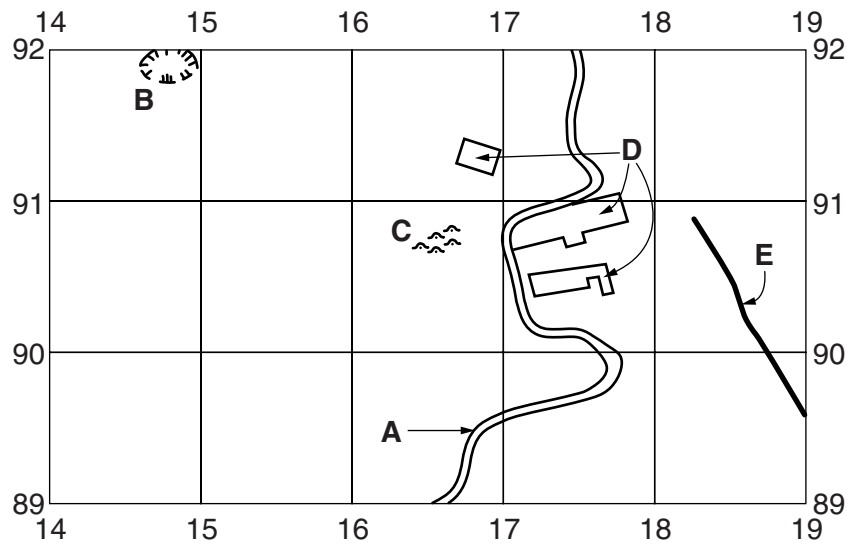


Fig. 1

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

(i) the name of the river **A**;

.....[1]

(ii) feature **B**;

.....[1]

(iii) the features at **C**;

.....[1]

(iv) the land use in areas **D**;

.....[1]

(v) the type of road at **E**.

.....[1]

(b) Study the area of settlement around Bindura in the centre of the map extract.

(i) Identify **three** services provided in this area.

1

2

3[3]

(ii) Using map evidence, explain why the settlement has developed at Bindura.

.....

.....

.....

.....

.....

.....

.....

.....[4]

- (c) Fig. 2A shows an area at Pimento Park in the south west of the map extract and Fig. 2B shows an area at Stella in the north east of the map extract. Study the two areas and answer the questions below.

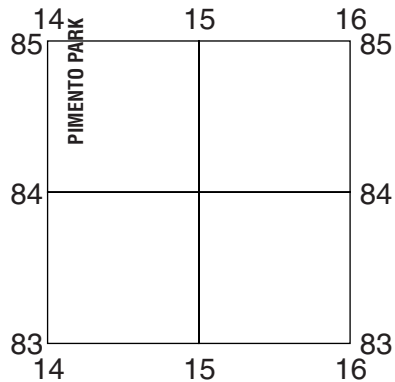


Fig. 2A

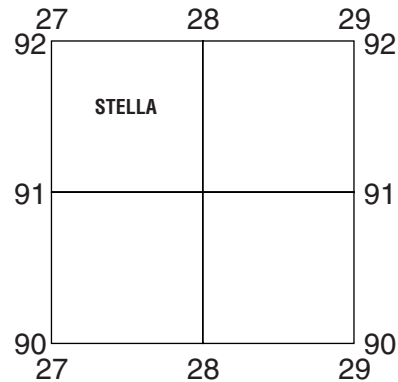


Fig. 2B

The table below compares the features of the two areas. Complete the table by putting ticks in the correct **five** boxes. Use only **one** tick for each row.

	Area in Fig. 2A	Area in Fig. 2B	Both these areas	Neither of these areas
Example: large river		✓		
flat or gently sloping land				
mostly medium bush				
a power line				
track, cut line or game trail				
high drainage density				

[5]

- (d) Fig. 3 shows the locations of spot height 1045 metres and spot height 1064 metres in the south east of the map extract.

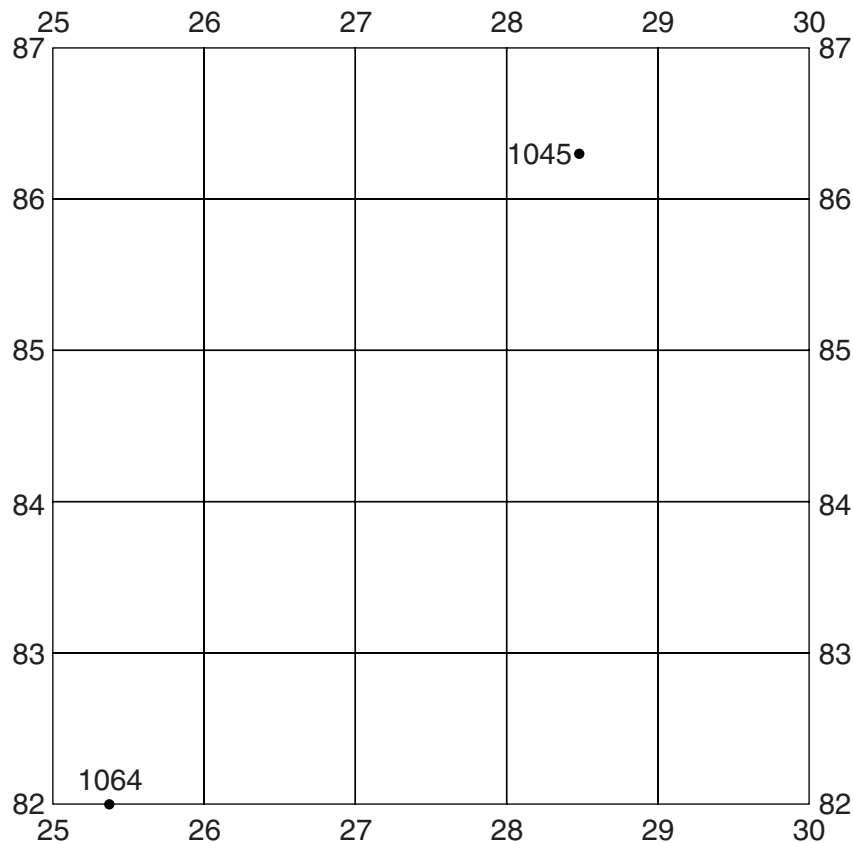


Fig. 3

- (i) Give the six figure grid reference for spot height 1045 metres.
 [1]
- (ii) Measure the distance between the two spot heights. Give your answer in metres.
 metres [1]
- (iii) What is the bearing, from grid north, **to** spot height 1064 metres **from** spot height 1045 metres? Tick **one** correct answer below.

	Tick
56°	
136°	
216°	
236°	

[1]

[Total: 20 marks]

- 2 The Bahamas are a group of islands in the Atlantic Ocean where coral reefs have developed. Figs 4A and 4B show the largest island, Andros Island, and the location of the nearby coral reefs.

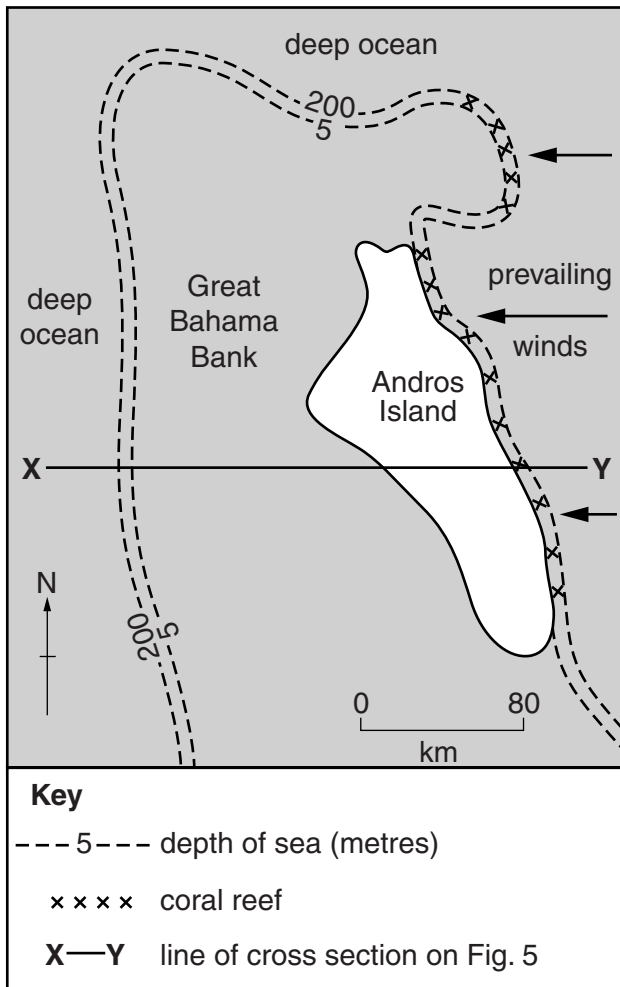


Fig. 4A

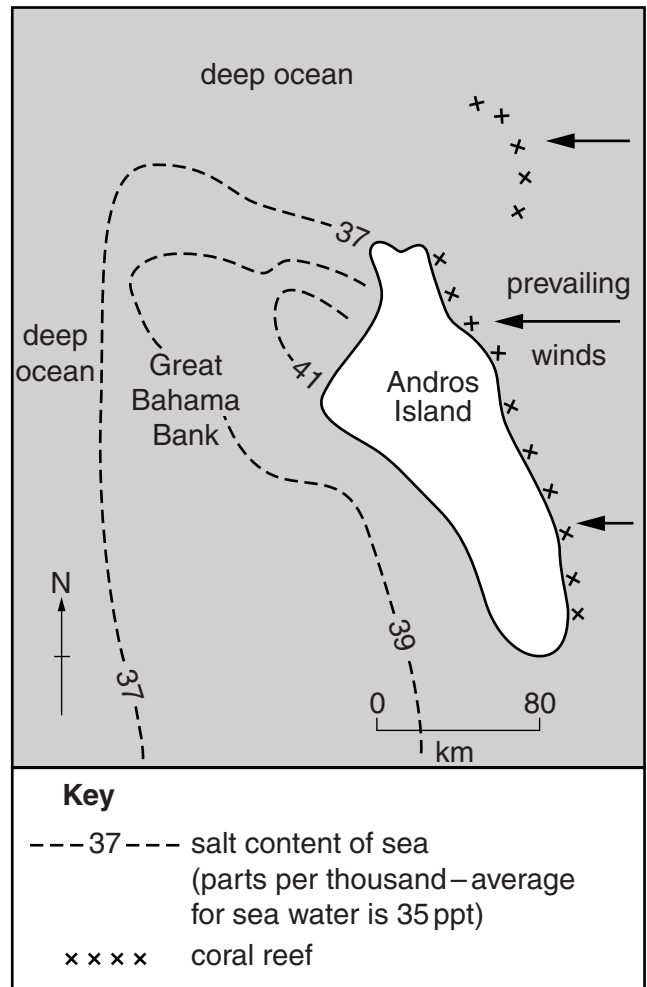


Fig. 4B

- (a) Using information from Figs 4A and 4B, describe where the coral reef is found and explain how the following factors have affected the location of the coral reefs.

- (i) Depth of the sea

Description

.....

Explanation

.....[2]

(ii) Salt content of the sea water

Description

.....

Explanation

.....[2]

(iii) Prevailing wind

Description

.....

Explanation

.....[2]

(b) Fig. 5 shows a cross section from **X** to **Y** on Fig. 4A.

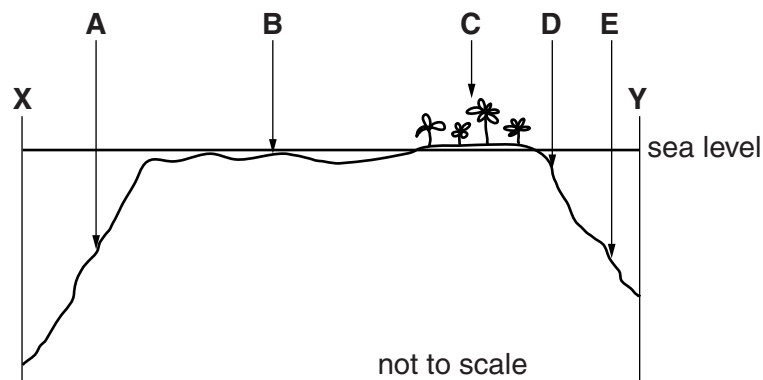


Fig. 5

Which of points **A**, **B**, **C**, **D** or **E** on Fig. 5 is the location of:

(i) The Great Bahama Bank; [1]

(ii) a coral reef? [1]

[Total: 8 marks]

- 3 Photographs A and B (Insert) show volcanoes in Auckland, New Zealand, where dormant and extinct volcanoes occur.

(a) (i) What is meant by an *extinct* volcano?

.....
[1]

(ii) What is the evidence in Photograph A which suggests that the volcano shown is extinct?

.....

[1]

(b) Fig. 6 shows a field sketch of the volcano shown in Photograph A.

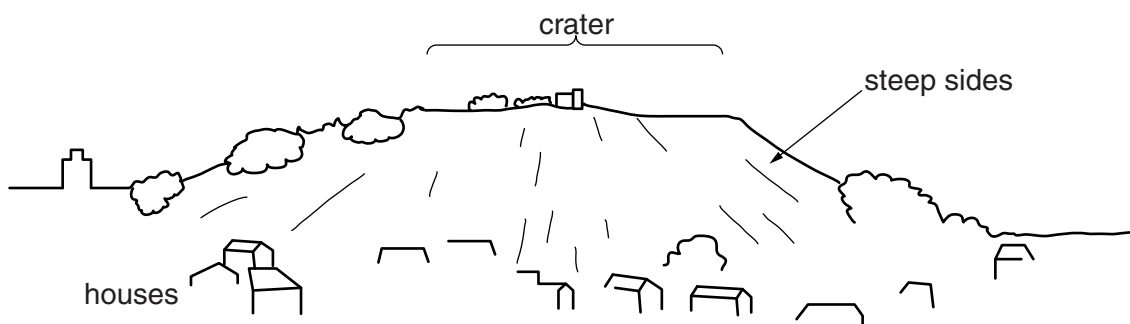
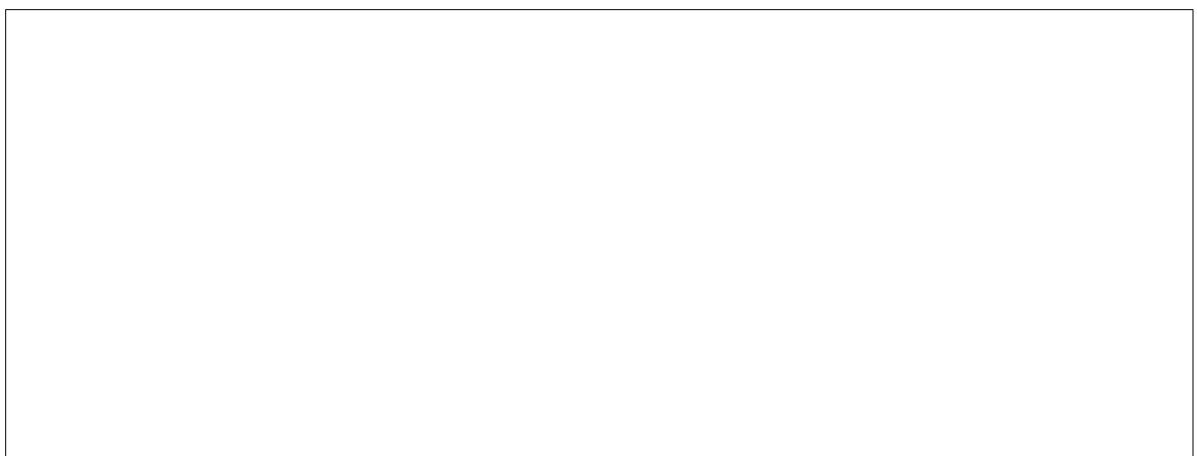


Fig. 6

In the space below draw a field sketch of the volcano shown in **Photograph B**. Add labels to your sketch.



[4]

(c) Suggest why the volcanoes in Photographs A and B have different shapes.

.....

.....

.....

.....

.....

.....[2]

[Total: 8 marks]

- 4 (a) The steel industry is one of the major industries in the world. Fig. 7 shows the leading world producers of steel in November 2012.

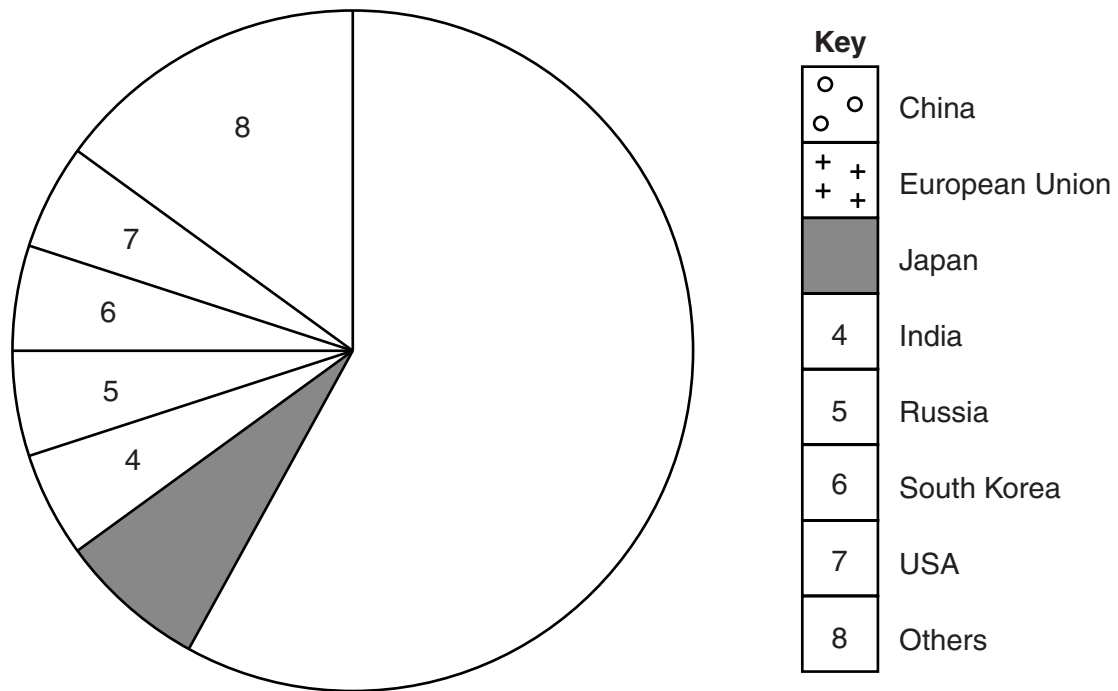


Fig. 7

China produced 46% of the world's steel and the European Union produced 12%. Plot this information on Fig. 7. Use the key provided. [3]

- (b) Study Fig. 8, which describes some of the effects of the development of a major industry.

The development of a major industry such as steel, motor vehicle manufacturing or chemicals affects the surrounding area in many ways. Large numbers of people are employed in the industry and the money they earn is spent locally. This increases the demand for services and goods. Training in the new industry increases the amount of skilled labour in the area. Taxes are paid by the workers and the industry. The major industry may use raw materials found or produced locally.

Fig. 8

Using information from Fig. 8 only, describe **one** effect of the development of a major industry on the following:

- (i) the government of the area;

.....
[1]

- (ii) local people;

.....
[1]

- (iii) other industries in the area.

.....
[1]

- (c) Photograph C (Insert) shows an industrial location. Using evidence from Photograph C, describe **two** disadvantages for people living nearby.

1

 2
[2]

[Total: 8 marks]

- 5 Fig. 9A shows the population structure of Italy in 2000 and Fig. 9B shows the predicted population structure of Italy in 2020.

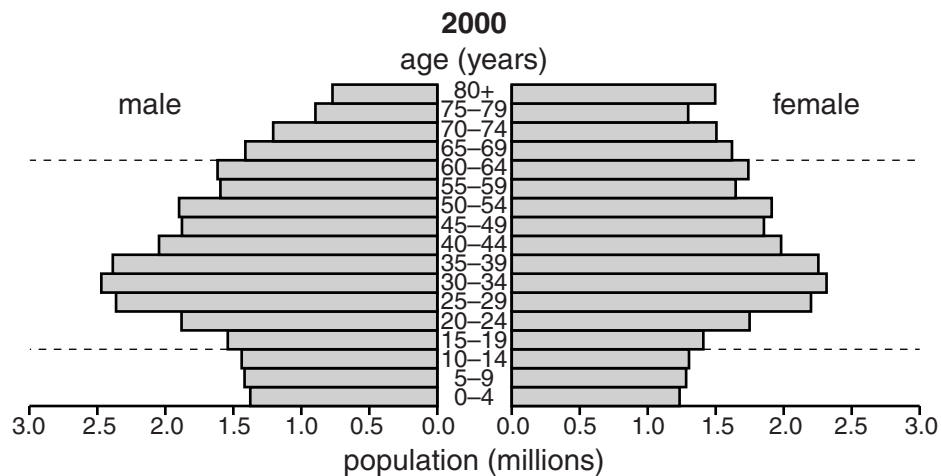


Fig. 9A

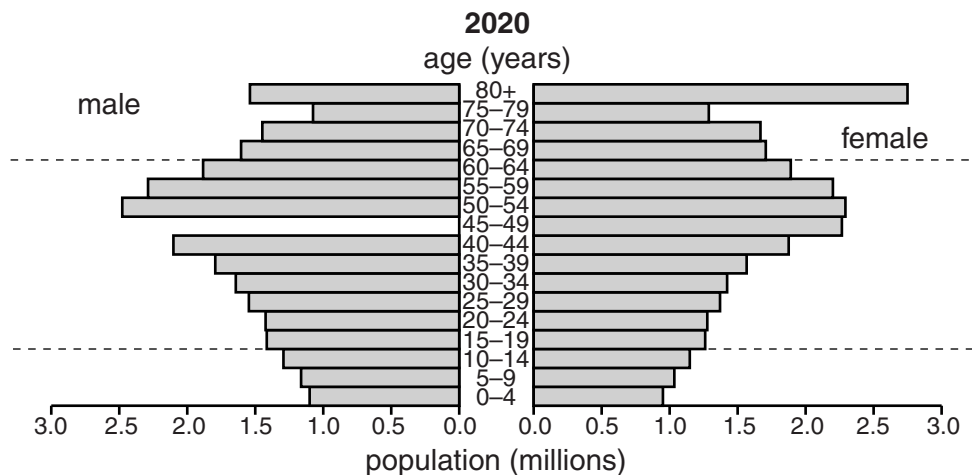


Fig. 9B

- (a) (i) How many 40–44 year old males were there in Italy in 2000?
- million [1]
- (ii) There are expected to be 2.5 million 45–49 year old males in Italy in 2020. Plot this information on Fig. 9B. [1]
- (b) Describe the predicted changes between 2000 and 2020 in the total numbers of:
- (i) 0–14 year olds;
- [1]
- (ii) over 64 year olds.
- [1]

- (c) Describe the predicted changes between 2000 and 2020 within the 15–64 year old group.

.....

.....

.....

.....

.....[2]

- (d) Fig. 10 shows differences between the population of Italy and the population of India.

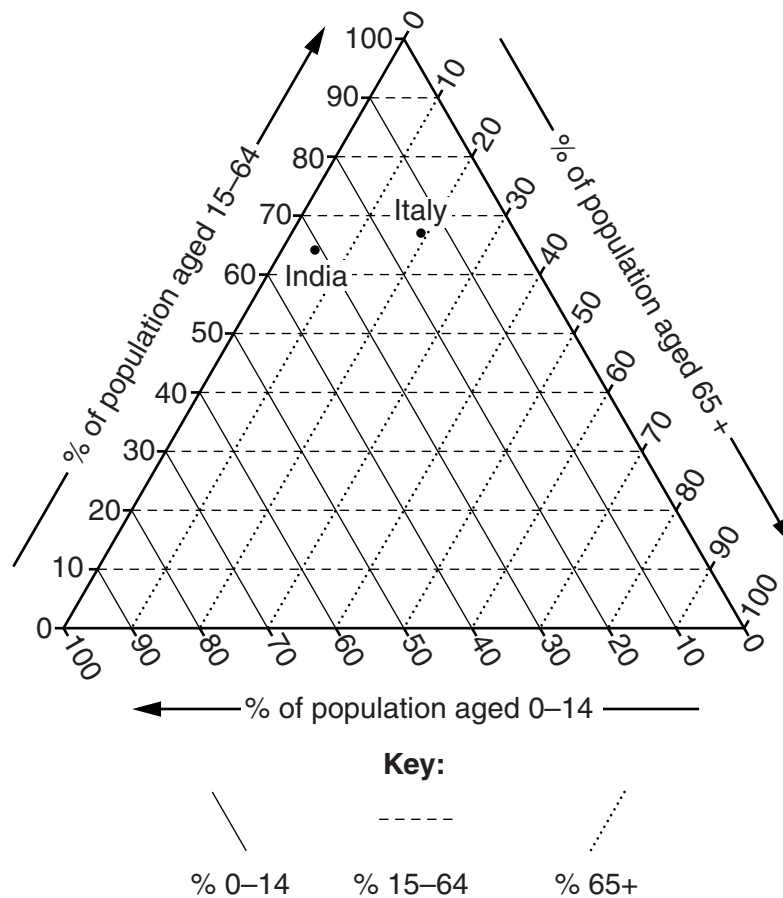


Fig. 10

Using Fig. 10, describe **two** differences between the population of Italy and the population of India.

1

.....

2

.....[2]

[Total: 8 marks]

- 6 Fig. 11 gives information about Hurricane Irene (a tropical storm) which affected the USA in August 2011. The path and effects of the storm are shown. Study the information and answer the questions on the opposite page.

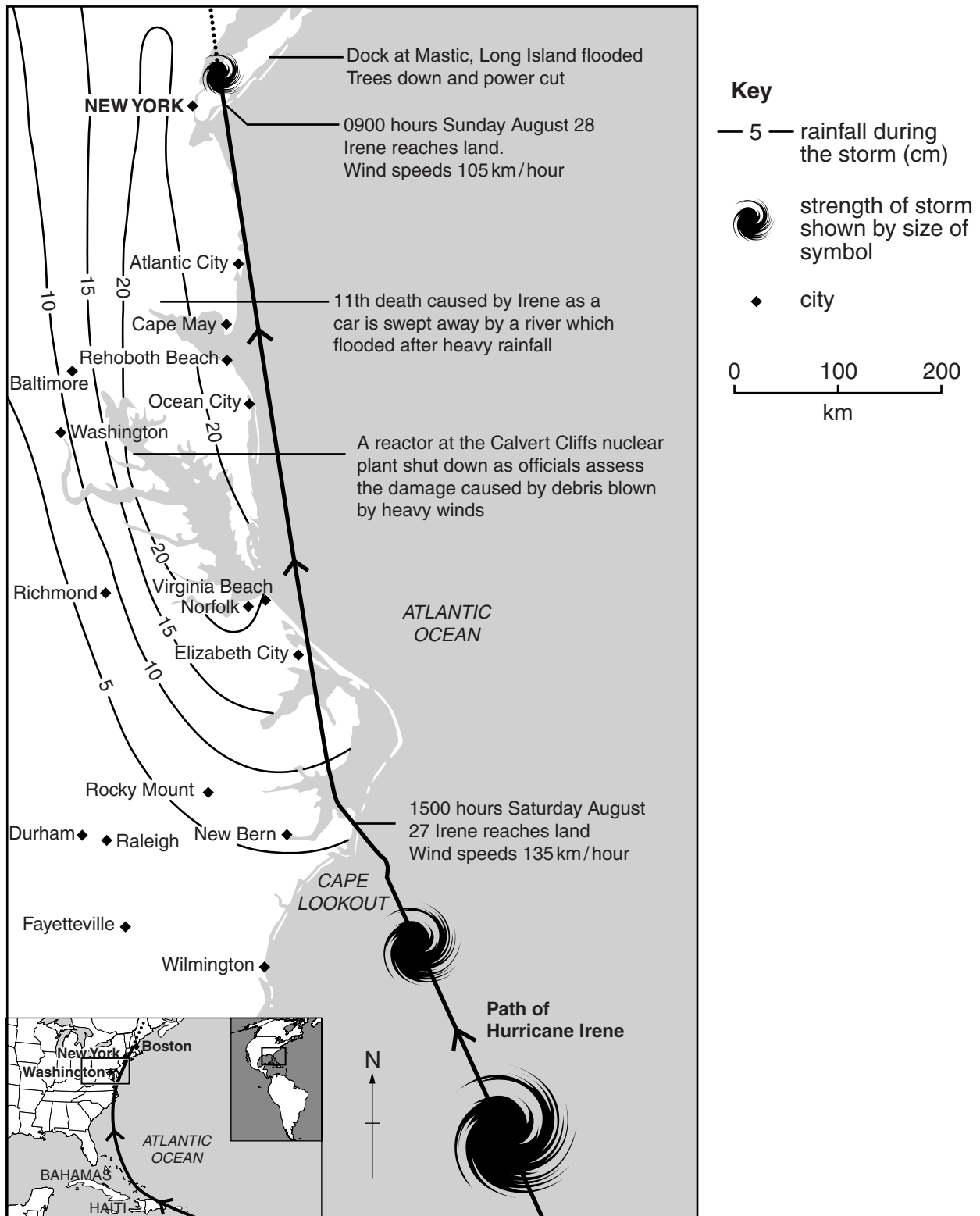


Fig. 11

(a) How much rain fell in Baltimore? Circle **one** correct answer below.

less than 5 cm 5–10 cm 10–15 cm 15–20 cm more than 20 cm

[1]

(b) The storm first reached land on August 27, then it reached land again on August 28.

(i) Name the **two** points where the storm reached land.

1 2 [1]

(ii) State the compass direction in which the storm travelled between the two points.

..... [1]

(iii) What happened to the strength of the storm between the two points?

..... [1]

(c) Using Fig. 11 only, describe **two** weather hazards of the storm and the effects that they had.

Weather hazard 1

Effects

.....

.....

.....

Weather hazard 2

Effects

.....

.....

..... [4]

[Total: 8 marks]

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Copyright Acknowledgements:

Question 3 Photographs A & B	D. Kelly © UCLES.
Question 4 Figs 7 & 8	© US Energy Administration; http://www.eia.gov .
Question 4 Photograph C	D. Kelly © UCLES.
Question 5 Figs 9A, 9B & 10	Data sourced from: © US Census Bureau International Database.
Question 6 Fig. 11	© The Guardian; 29 August 2011.

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