



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

CANDIDATE  
NAME

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**GEOGRAPHY**

**0460/21**

Paper 2

**May/June 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 on all the work you hand in.

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 ON ANY BARCODES.**

Answer **all** questions.

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

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, **2** blank pages and **1** Insert.



1 Study the map extract which is for Esigodini, Zimbabwe. The scale is 1:50 000.

(a) Fig. 1 shows some of the features in the south east part of the map extract. Study Fig. 1 and the map extract, and answer the questions on the opposite page.

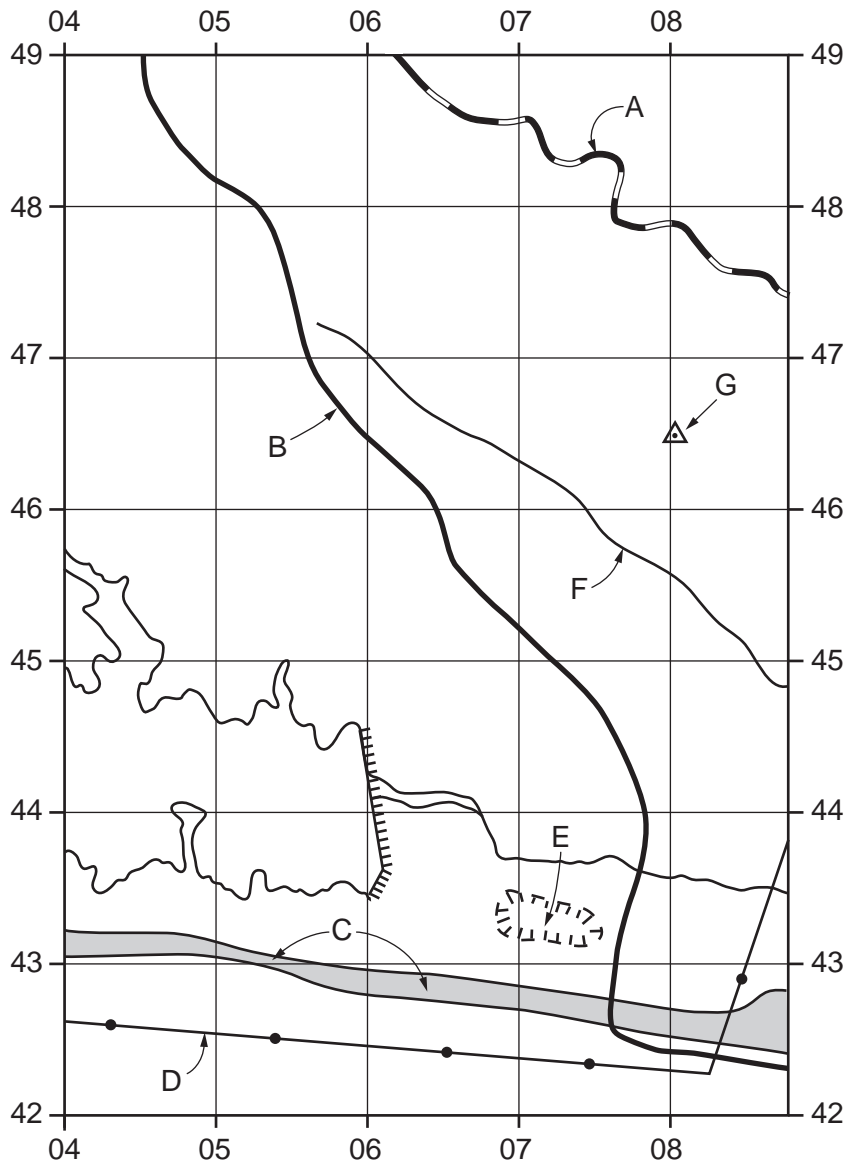


Fig. 1

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

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Use

(i) feature A;  
..... [1]

(ii) the type of road at B;  
..... [1]

(iii) the settlement pattern in area C;  
..... [1]

(iv) feature D;  
..... [1]

(v) feature E;  
..... [1]

(vi) the name of river F;  
..... [1]

(vii) feature G.  
..... [1]

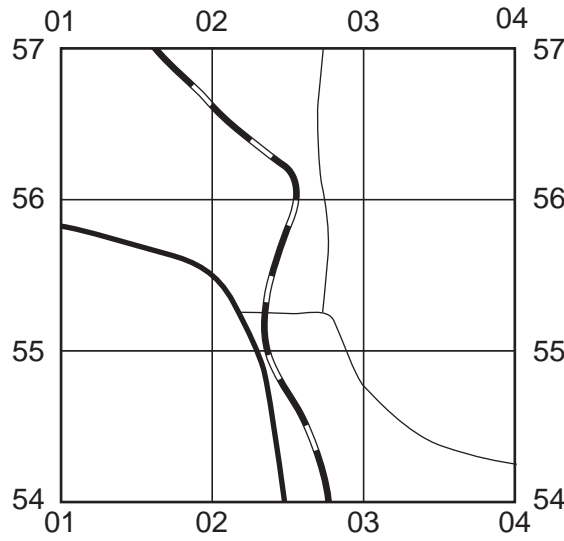
(b) The names of mines are shown on the map extract in red letters. Find the Richardsons mine and the Alice mine.

(i) State the four figure grid reference of the Richardsons mine.  
..... [1]

(ii) State the compass direction of the Alice mine from the Richardsons mine.  
..... [1]

(c) Fig. 2 shows the area of the settlement at Esigodini.

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**Fig. 2**

(i) Name **three** services or functions found in the area shown on Fig. 2.

- 1 .....
- 2 .....
- 3 .....

[3]

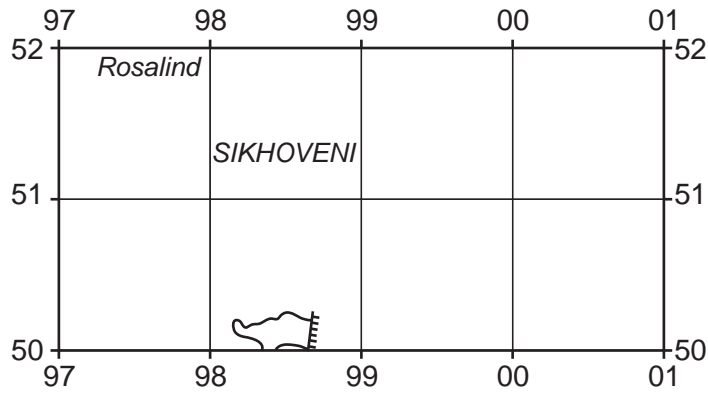
(ii) Give reasons for the growth of the settlement shown on Fig. 2.

- .....
- .....
- .....
- .....
- .....
- .....
- .....
- .....
- .....
- .....

[3]

(d) Fig. 3 shows the area around Sikhoveni Hill.

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**Fig. 3**

Describe the relief and drainage of this area.

Relief .....

.....

.....

.....

.....

.....

.....

Drainage .....

.....

.....

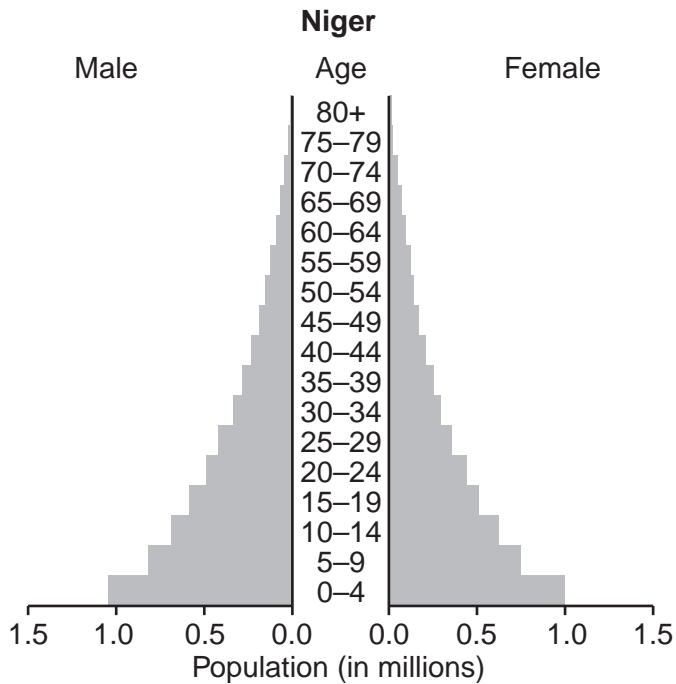
.....

..... [5]

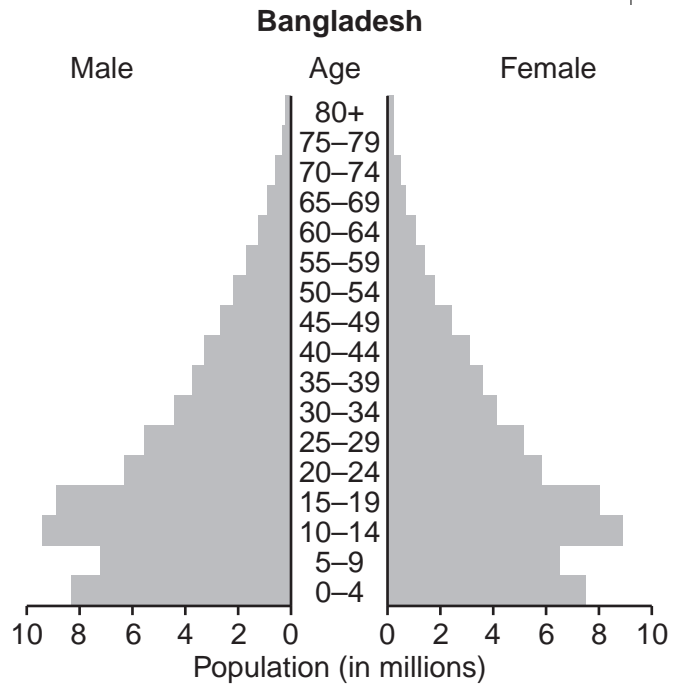
[Total: 20 marks]

- 2 Figs 4A, 4B and 4C show population pyramids for three different countries in 2010: Niger, Bangladesh and Country X. Study the population pyramids and answer the questions on the opposite page.

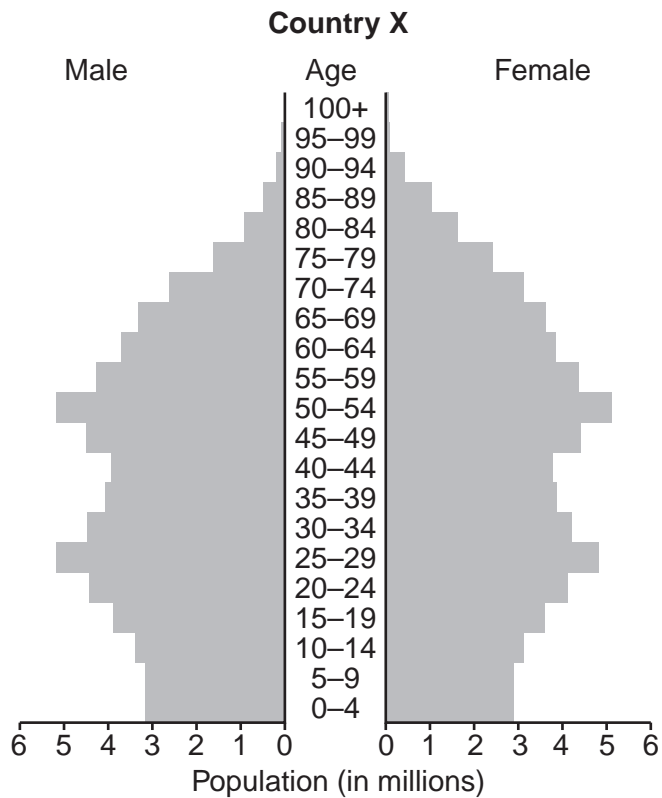
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**Fig. 4A**



**Fig. 4B**



**Fig. 4C**

(a) State the populations of:

(i) females aged 0–4 in Niger; ..... million [1]

(ii) females aged 20–24 in Bangladesh. .... million [1]

(b) What evidence shown on Fig. 4A suggests that Niger has:

(i) a high birth rate;  
.....  
..... [1]

(ii) a high death rate in 0–30 year olds?  
.....  
..... [1]

(c) Which **one** of the three countries has the largest population aged between 0 and 30?  
..... [1]

(d) Bangladesh has a major birth control programme.

(i) What evidence on Fig. 4B shows that this is having an effect?  
.....  
..... [1]

(ii) When did this start to work?  
..... [1]

(e) The population pyramid for Country X (Fig. 4C) has a very uneven shape, showing that the numbers in each age group vary a lot. Suggest **one** reason for this.  
.....  
..... [1]

[Total: 8 marks]





3 Photographs A, B and C (Insert) show three coastlines in Scotland (part of the UK). At each coastline, deposition is taking place.

(a) Complete Table 1 below by placing a tick (✓) in the **five** correct boxes. Use **one** tick only for each feature.

**Table 1**

	Photograph A	Photograph B	Photograph C	None of the photographs
rocky beach				
sand dunes				
arch				
wave-cut platform				
bar				

[5]

(b) Study Photograph A. Explain how the wind has helped to form this landscape.

.....

.....

.....

.....

.....

.....

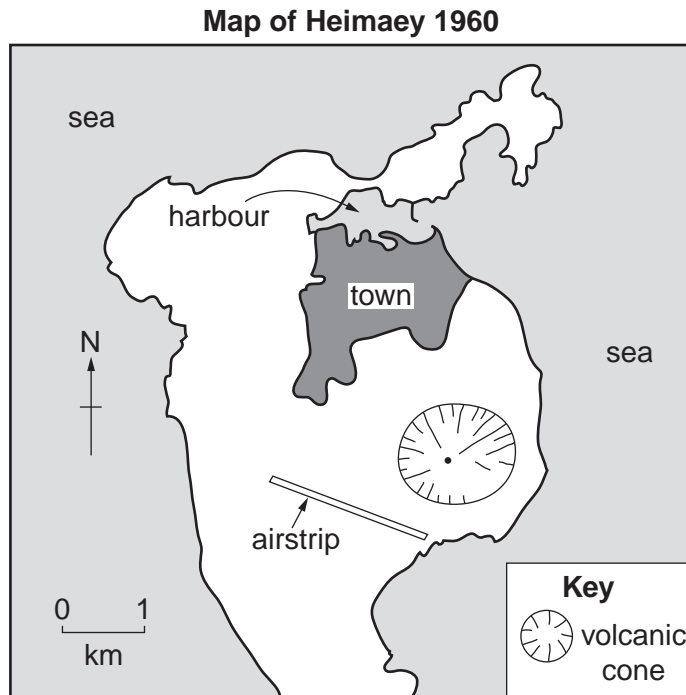
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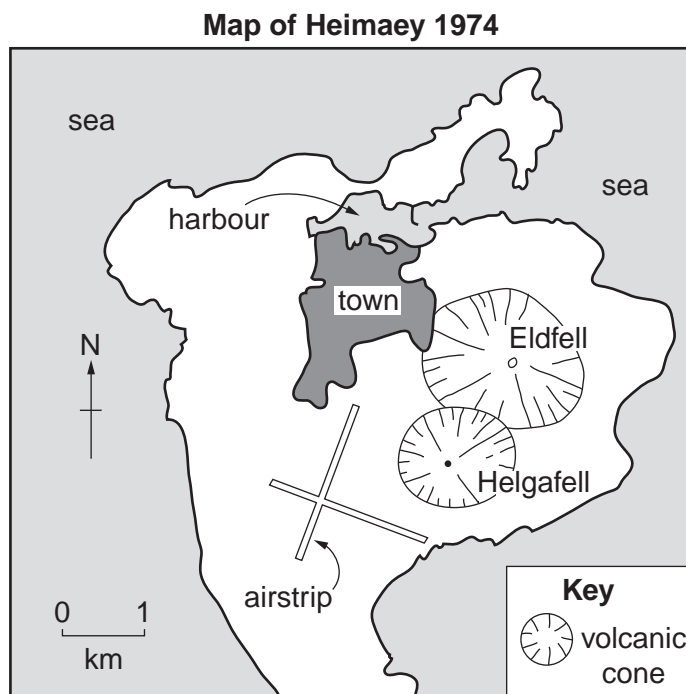
..... [3]

[Total: 8 marks]

- 4 The island of Heimaey lies in the North Atlantic Ocean. In 1973 Heimaey suffered major volcanic eruptions. Fig. 5 is a map of the island in 1960. Fig. 6 is a map of the island in 1974. Photograph D (Insert) was taken on the island in 2008.



**Fig. 5**



**Fig. 6**

(a) Using Figs 5 and 6, describe how the following features on Heimaey have changed between 1960 and 1974:

(i) the size of the town;

..... [1]

(ii) the total area of the island;

..... [1]

(iii) the airstrip;

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

(iv) the harbour and the harbour entrance.

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

(b) Study Photograph D (Insert), which was taken close to the summit of Eldfell in 2008, and Figs 5 and 6.

(i) In which compass direction was the camera facing?

..... [1]

(ii) Look at the lava flows labelled on Photograph D. Label the position of these lava flows on Fig. 6 using the letter L. [1]

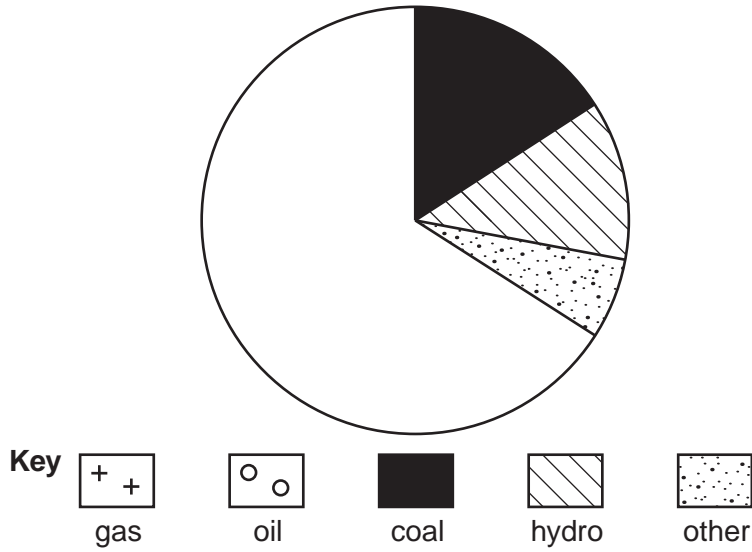
(iii) What was the area you have labelled in (b)(ii) used for in 1960?

..... [1]

[Total: 8 marks]

5 (a) Fig. 7 gives information about electricity production in Italy.

**Energy sources used in power stations**



**Fig. 7**

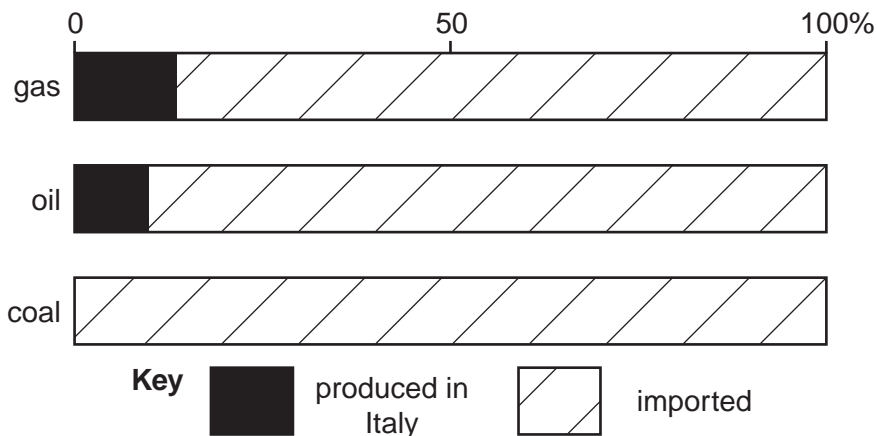
(i) 54% of electricity is generated from gas and 12% from oil. Add this information to Fig. 7. Use the key provided [1]

(ii) What percentage of electricity is generated from coal?

.....% [1]

(b) Fig. 8 (below) and Fig. 9 (opposite) give further information about energy supplies in Italy.

**Energy consumption in Italy 2007**



**Fig. 8**

### Energy sources used in Italy

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Use

Italy imports oil and gas by ship to ports such as Brindisi and by the network of pipelines across the Mediterranean Sea. These imports could be increased but there are concerns about rising oil prices and over-dependence on imported supplies.

No coal was produced in Italy in 2007; however the country has coal reserves in the Sulcis area of Sardinia. In July 2009, environmental activists protested about Italy's largest coal fired power station in Brindisi. This was a protest about global warming as a result of greenhouse gases from coal fired power stations.

Italy is the only major industrialised nation without its own nuclear power supplies. Production was phased out following a public consultation in 1987. This followed the major pollution incident at the Chernobyl nuclear plant in Ukraine. There is evidence for a change in public opinion, especially among younger people, because nuclear power does not produce greenhouse gases. In May 2008 the Italian government announced that it will begin building new nuclear power stations in the next five years.

**Fig. 9**

Italy wants to increase electricity supplies. Using information from Figs 8 and 9 **only**, give **one** advantage and **one** disadvantage of choosing each of the following types of power station.

#### **Oil and gas fired power stations**

Advantage .....

..... [1]

Disadvantage .....

..... [1]

#### **Coal fired power stations**

Advantage .....

..... [1]

Disadvantage .....

..... [1]

#### **Nuclear power stations**

Advantage .....

..... [1]

Disadvantage .....

..... [1]

[Total: 8 marks]

6 The Toyota Motor Corporation of Japan had 41% of the Japanese vehicle market in 2007 but sold its vehicles in every continent.

(a) Fig. 10 shows Toyota's share of the European market.

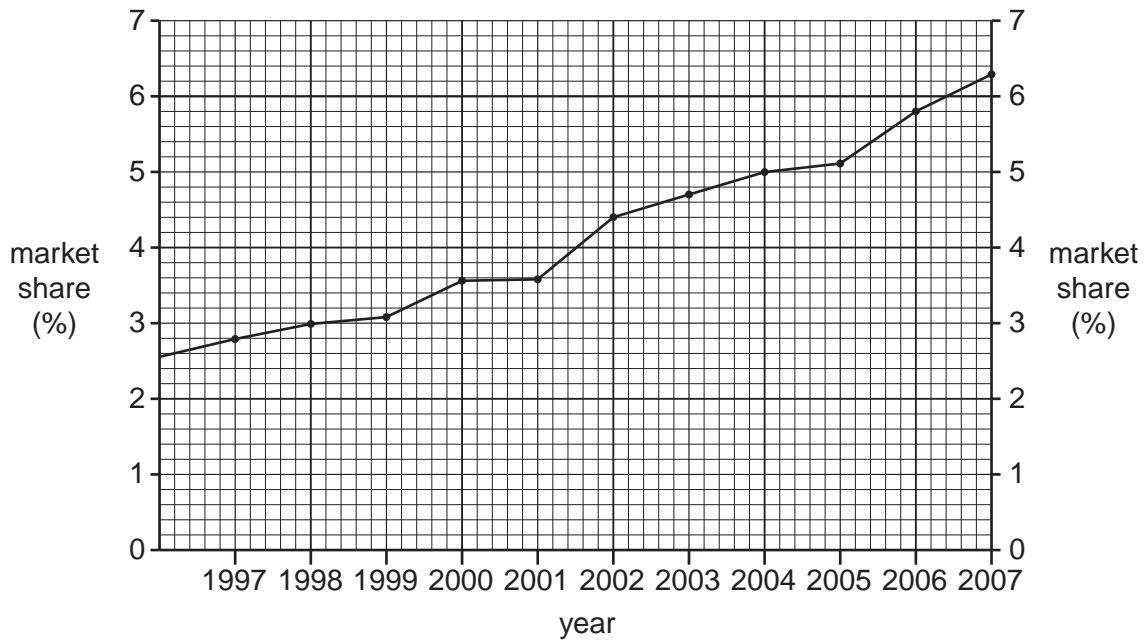


Fig. 10

(i) Compare the size of Toyota's European and Japanese markets.

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

(ii) Describe the pattern of change in Toyota's share of the European market as shown on Fig. 10.

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

(b) Fig. 11 shows the organisation of the vehicle manufacturing industry and Fig. 12 shows the locations of the Toyota vehicle industry in Europe.

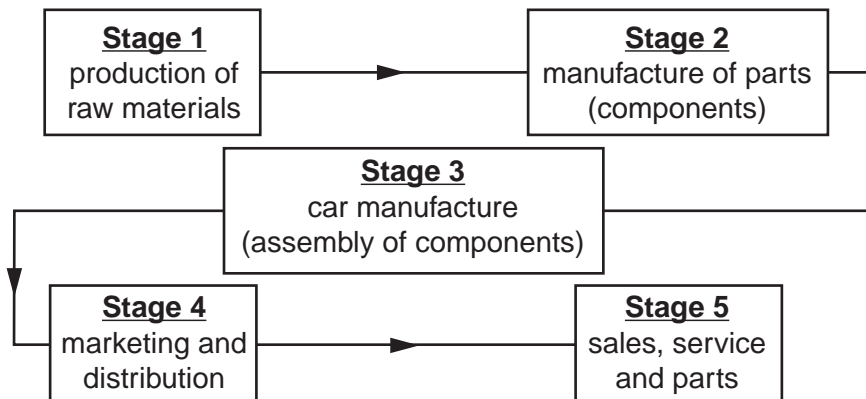


Fig. 11

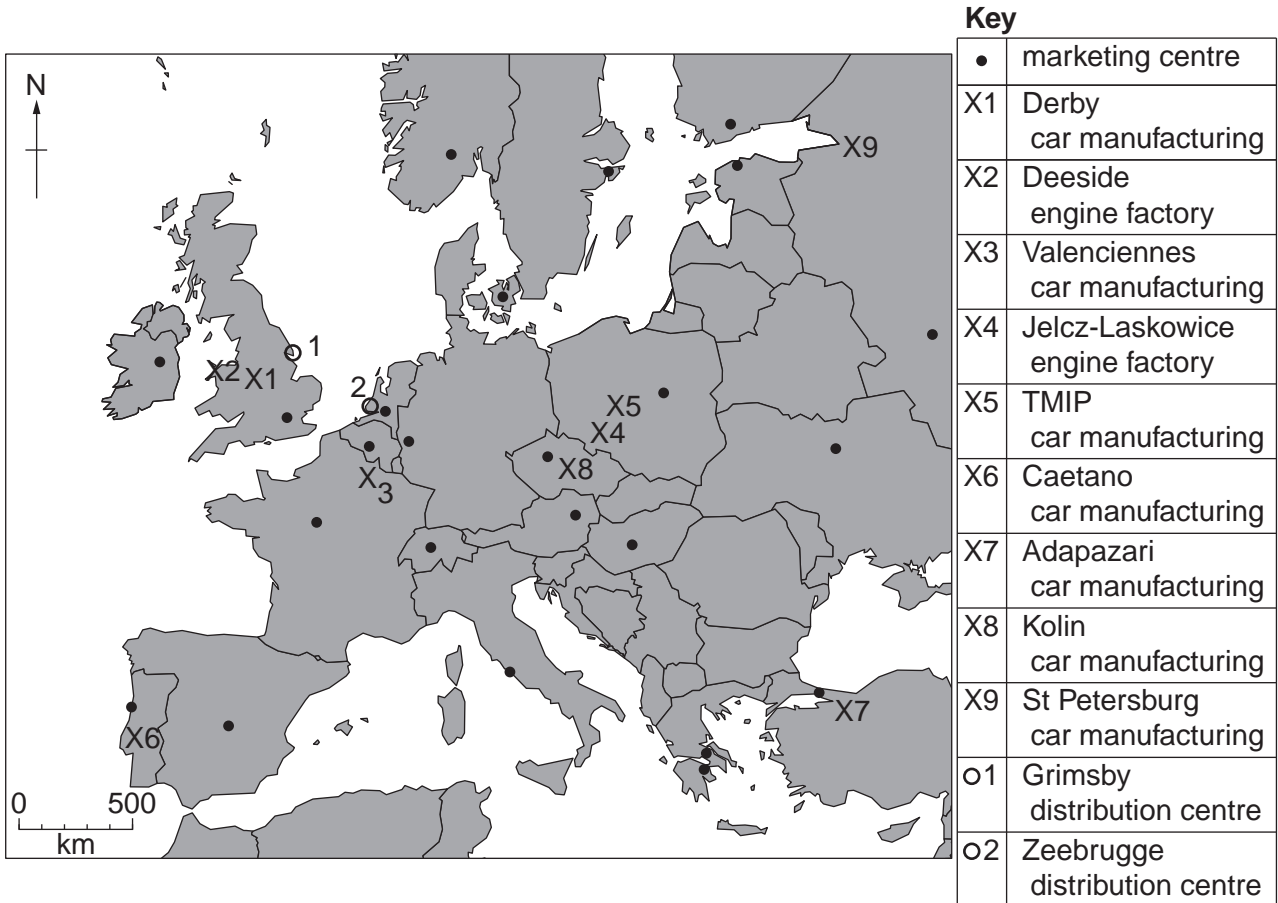


Fig. 12

(i) Use Figs 11 and 12 to complete Table 2. Place only **one** tick (✓) in each row.

Location	Stage				
	1	2	3	4	5
Deeside					
Kolin					
Zeebrugge					

[3]

Table 2

(ii) Describe the distribution of the marketing centres shown on Fig. 12. Suggest **one** reason for this distribution.

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

(c) Suggest why Toyota has chosen to **manufacture** vehicles in Europe.

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

[Total: 8 marks]

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*Copyright Acknowledgements:*

Question 2 Figs 4A, 4B and 4C      © Guinness & Nagle; *IGCSE Geography*; Hodder; 2009.  
Question 6 Fig. 12                      © Data; Toyota Website.  
Photographs A, B, C & D              © D A Kelly © UCLES.

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