CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

GEOGRAPHY   **0460/23**

Paper 2   **May/June 2013**

1 hour 30 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
                          Plain paper
                          Calculator

1:25 000 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 Photograph A for Question 2.
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.

For Examiner's Use	
Q1	
Q2	
Q3	
Q4	
Q5	
Q6	
Total	

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

UNIVERSITY *of* CAMBRIDGE
International Examinations

[Turn over

1   The map extract is for Haut de Flacq, Mauritius. The scale is 1:25 000.

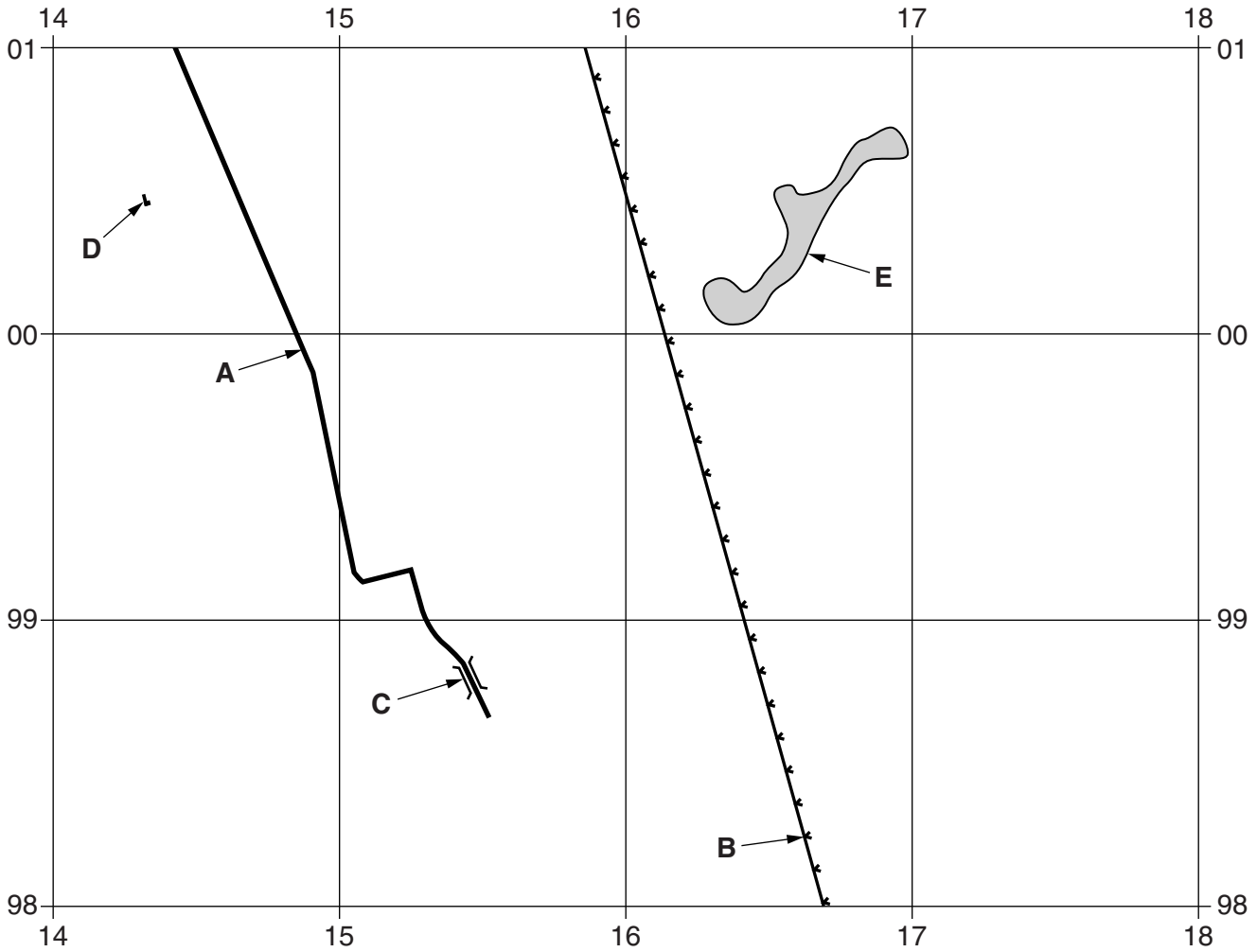   **(a)** Fig. 1 shows the position of some features in the east of the map extract.

Fig. 1

       Study the map and identify the following features shown on Fig. 1:

       (i)   the type of road at **A**;

             ....[1]

       (ii) feature **B**;

             ....[1]

       (iii) the feature used by the road at **C**;

             ....[1]

       (iv) the type of public building marked **D**;

             ....[1]

       (v)   the vegetation in the shaded area at **E**.

             ....[1]

(b) Describe the course taken by the District Boundary in the western part of the map extract.

....

....

....

....

....

....[3]

(c) Describe the features of the River du Poste between eastings 16 and 18.

....

....

....

....

....

....

....

....[4]

(d) (i) Look at the villages of Lalmatie, Haut de Flacq and Happy Village in the north east of the map. For each description in the table below, write the name of the village which best fits that description.

description	name of village
most nucleated	
most linear	
most industrial	
on the lowest site	

[4]

(ii) Look at the services in each of the three villages in **(d)(i)**.

Which village is likely to have the largest sphere of influence? Give one reason for your answer.

Name of village ....

Reason ....

....[1]

(e) (i) Identify the natural vegetation in grid square 1100.

....[1]

(ii) Measure the distance in metres along the road from the road junction at 152991 to where the road leaves the map at 180005. Circle the nearest distance to your answer.

     3050   3200   3350   3500   metres   [1]

(iii) What type of public building is at grid reference 145006?

....[1]

[Total: 20 marks]

2 Study Photograph A (Insert) of a limestone coast. Use Photograph A to answer the following questions.

(a) Identify the coastal features which are indicated by the letters on Photograph A. Choose from:

arch, bay, cave, coral reef, headland, spit, stack

Write your answers in the table below.

letter	name of feature
W	
X	
Y	
Z	

[4]

(b) Name the landform which once joined **W** and **X** on Photograph A.

....[1]

(c) Use Photograph A to suggest why feature **Y** has been formed at that height on the cliff face.

....

....[1]

(d) What evidence is there that Photograph A was taken when the tide was low?

....

....[1]

(e) Name **one** erosion process that may have formed the wave-cut notch shown on Photograph A.

....[1]

[Total: 8 marks]

3 **(a)** Table 1 gives information about actual and expected changes in the population of Brazil between 1995 and 2025.

Table 1

year	1995	2005	2015	2025
population (millions)	164	189	212	232
birth rate (per 1000)	22	20	17	15
death rate (per 1000)	6	6	6	7
net number of migrants (in thousands)	−13 000	−17 000	−17 000	−19 000

(i) Complete the graph, Fig. 2 (below), to show actual and expected changes in Brazil's total population between 1995 and 2025 by plotting the figures for the period between 1995 and 2015.

[2]
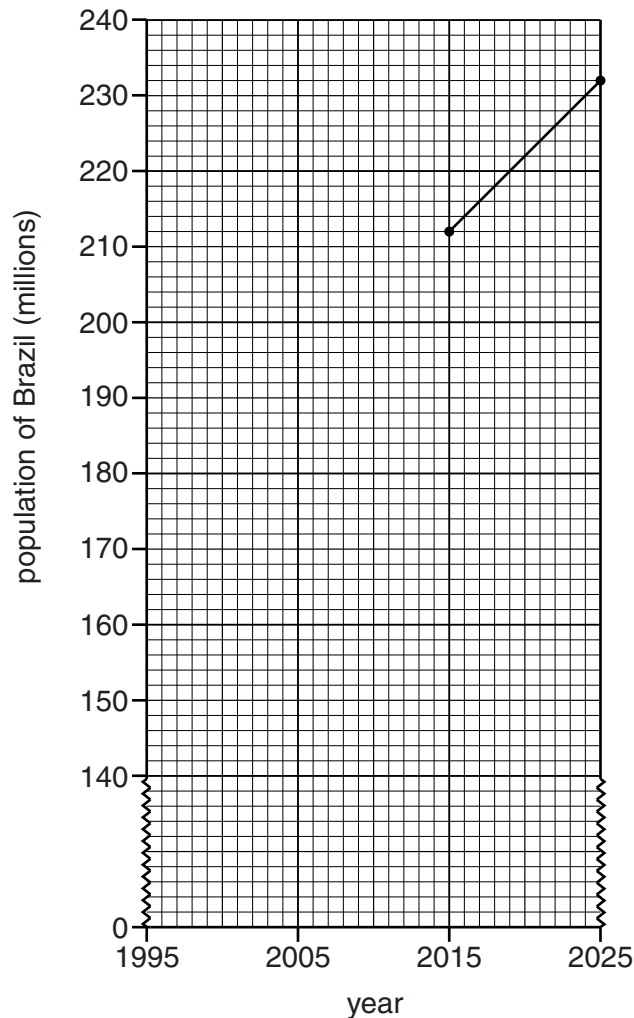
Fig. 2

   (ii) Use Table 1 to explain why Brazil's population is growing over the period shown.

   ....

   ....[1]

   (iii) What does the 2005 net migration figure of −17 000 indicate?

   ....

   ....[1]

   (iv) Calculate the expected natural increase of population in 2025. Show your working.

   ....

   ....[2]

(b) Brazil's infant mortality rate dropped from 39 per thousand births in 1995 to 22 per thousand births in 2010. Suggest **two** possible reasons for this change.

   1 ....

   ....

   2 ....

   ....[2]

[Total: 8 marks]

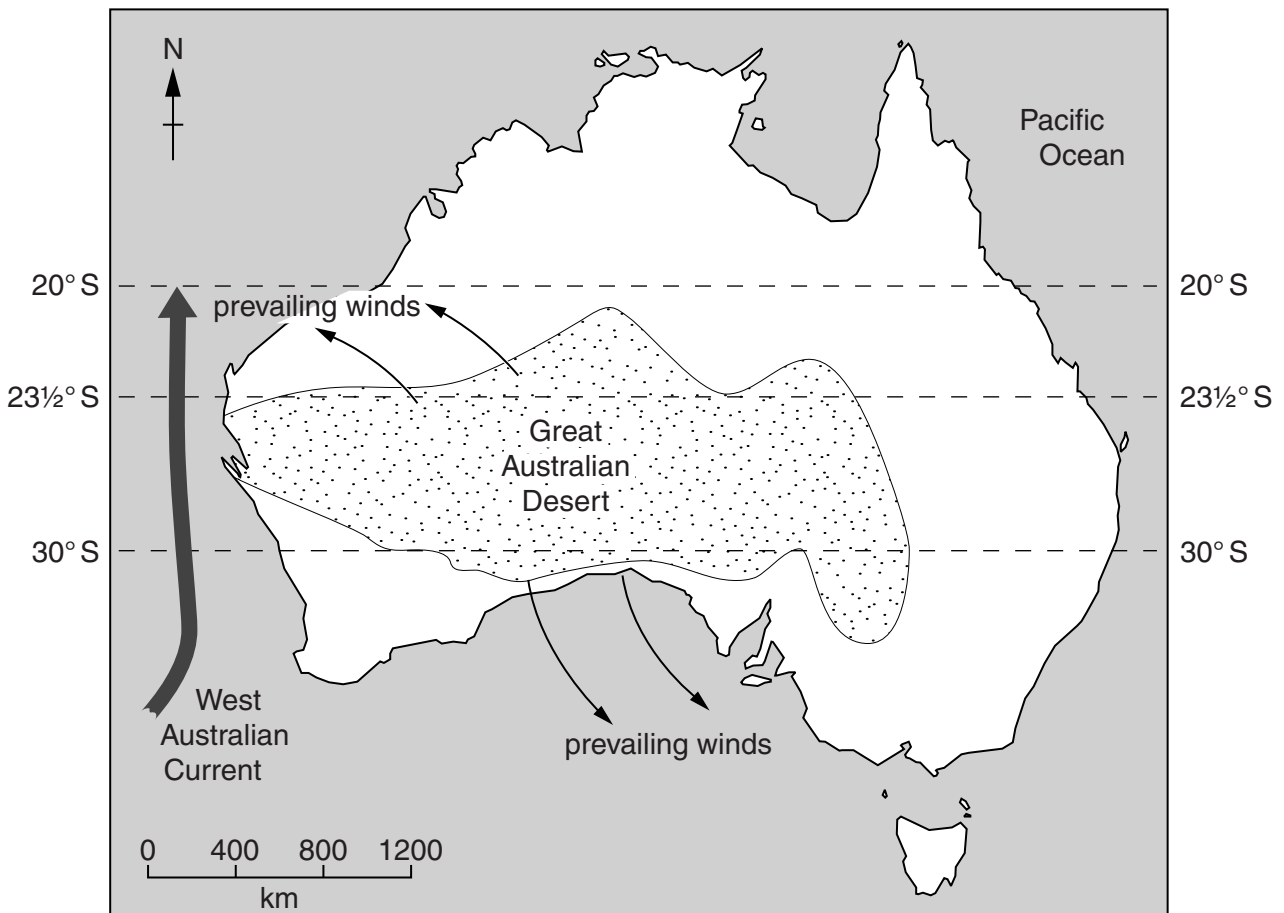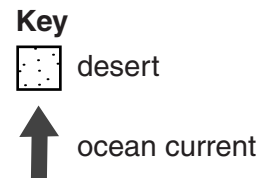**4 (a)** Figs 3A and 3B show the locations of deserts in North America and Australia.

Fig. 3A

Key
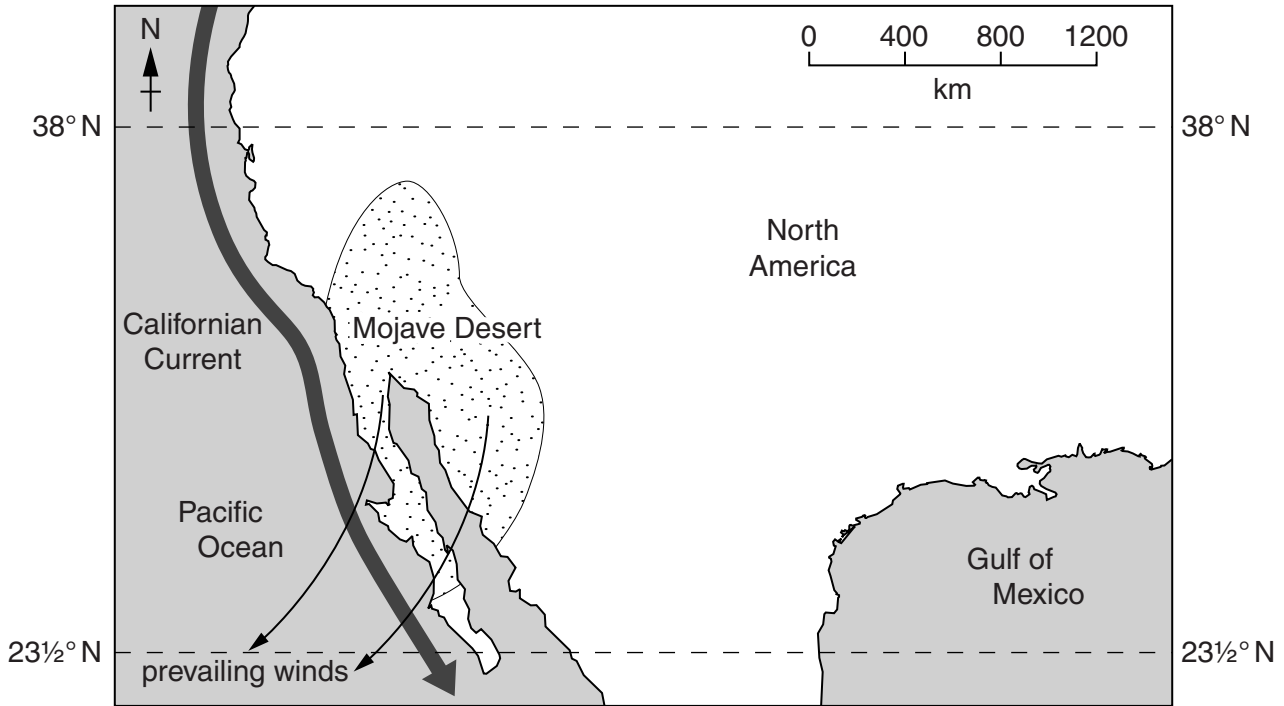
⋮ desert

▲ ocean current

Fig. 3B

(i) What type of ocean current is offshore near both these deserts?

....[1]

(ii) Compare the latitudes over which the Mojave and Great Australian Deserts extend.

....

....[1]

(iii) State **one** way in which the location of these deserts is similar.

....

....[1]

(iv) Will the season be summer or winter in the Australian Desert in December? Explain your answer.

Season .... because ....

....

....[1]

(b) Fig. 4 shows air movement between the Equator and 30° north and south.

Tropopause

Key

→ air movement

LP low pressure

HP high pressure
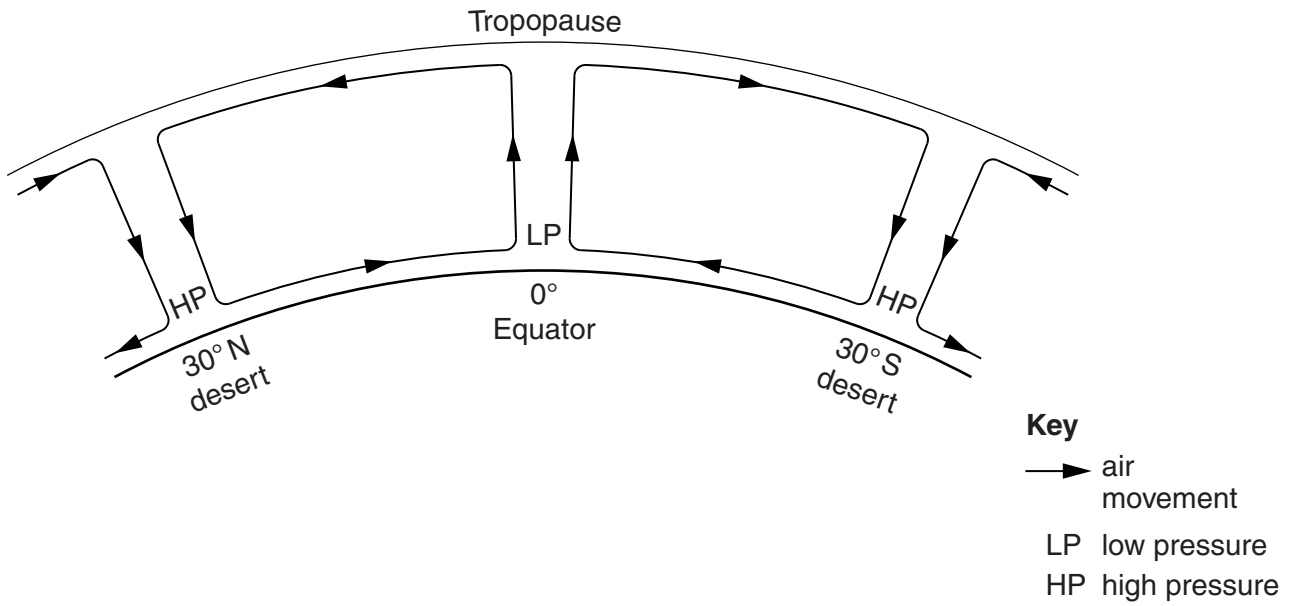
Fig. 4

(i) What changes are occurring in the air above the deserts? Tick **two** choices in the table below.

	Tick (✓)
cooling	
expanding	
relative humidity increasing	
rising	
sinking	
warming	

[2]

(ii) What is the type of pressure where the deserts are located?

....[1]

(iii) How does the wind pattern in Australia on Fig. 3B indicate the type of pressure you have named in **(b)(ii)**?

....

....[1]

[Total: 8 marks]

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Turn over for Question 5

 [Turn over

5 **(a)** Fig. 5 gives information about the number of tourists arriving in different regions of the world in 1965,1985 and 2005.
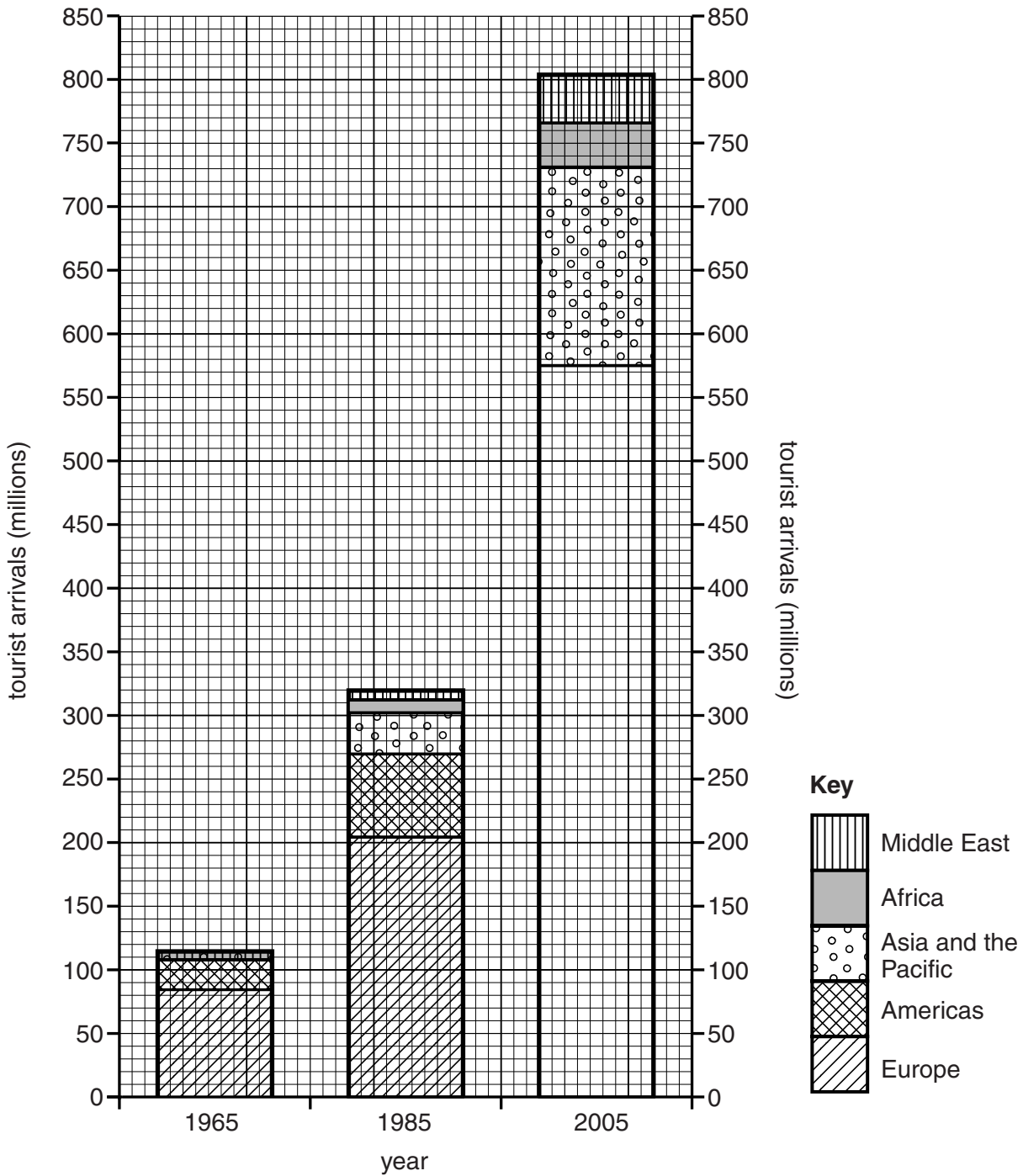
Fig. 5

(i) Complete Fig. 5 to show that 440 million tourists arrived in Europe and 135 million arrived in the Americas in 2005. Use the key provided. [1]

(ii) Which region has attracted most tourists in each of the years shown on Fig. 5?

....[1]

(iii) How many tourists arrived in the Middle East in 2005? Circle the correct answer.

39   49   760   810   million   [1]

(iv) Approximately what proportion of the total tourist arrivals in 1985 were to Asia and the Pacific? Circle the correct answer.

$$\frac{1}{10} \qquad \frac{3}{10} \qquad \frac{6}{10} \qquad \frac{9}{10}$$

[1]

(v) Compare the change in total tourist arrivals between 1965 and 1985 with the change between 1985 and 2005.

....

....

....

....[2]

(b) In some years, tourist arrivals are lower than in previous years. Suggest **two** possible reasons for this.

1 ....

....

2 ....

....[2]

[Total: 8 marks]

6 Fig. 6A shows the average amounts of water available per person for countries in Africa. Fig. 6B shows the variation in annual rainfall in Africa.
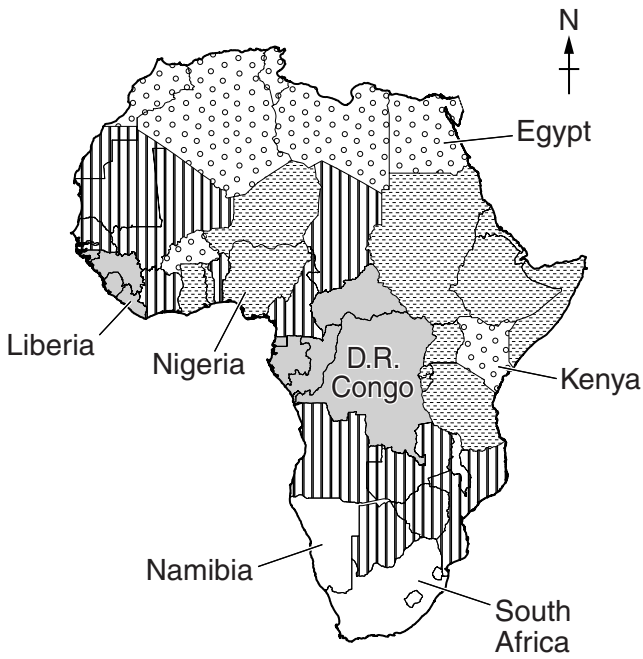
Key
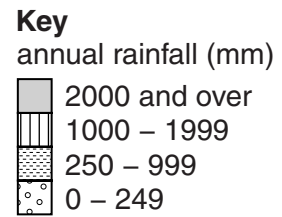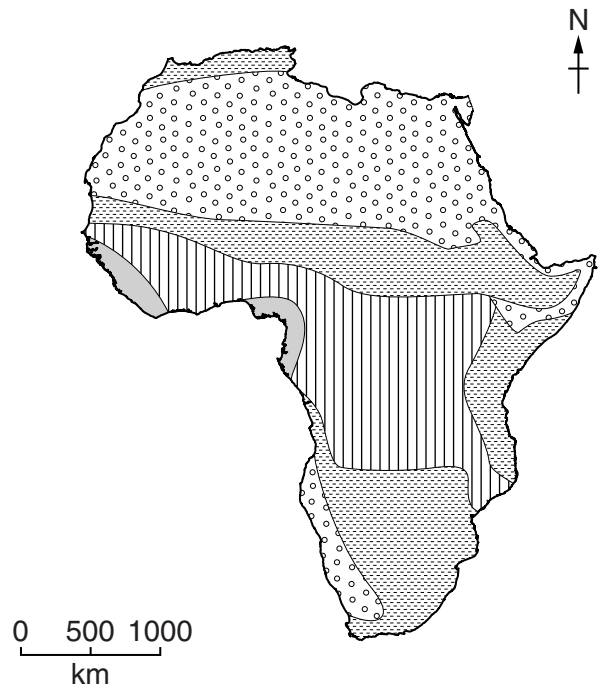available water
(m³ per person per year)

▨	15 000 and over
▥	2500 – 14 999
▦	1000 – 2499
○	0 – 999

Fig. 6A

0   500 1000
km

Key
annual rainfall (mm)

▨	2000 and over
▥	1000 – 1999
▦	250 – 999
○	0 – 249
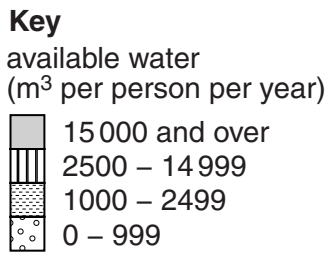
Fig. 6B

Table 2

country	water available per person (m³ per person per year)
Namibia	6130
South Africa	1400

(a) Complete Fig. 6A using the information in Table 2. Use the key provided. [1]

(b) (i) Describe the distribution of the countries with the lowest water availability in Africa.

....

....

....

....[2]

(ii) Complete the table below by inserting the name of countries which have the water availability and rainfall described in the table. Select **only** from the countries named in Fig. 6A.

country	water availability (m³ per person per year)	annual rainfall
....	15 000 and over	2000 mm and over
....	15 000 and over	1000 – 1999 mm
....	0 – 999	0 – 249 mm

[3]

(iii) Suggest **two** reasons why some countries with high rainfall are unable to supply enough water to meet demand.

1 ....

....

2 ....

....[2]

[Total: 8 marks]

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