UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Ordinary Level

CANDIDATE
NAME

CENTRE
NUMBER

CANDIDATE
NUMBER

GEOGRAPHY **2217/02**

Paper 2 **October/November 2007**

2 hours 15 minutes

Candidates answer on the Question Paper.

Additional Materials: Calculator
Ruler

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.
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	
Section B	
Total	

This document consists of **22** printed pages, **2** blank pages and **1** Insert.

UNIVERSITY *of* **CAMBRIDGE**
International Examinations

[Turn over

Section A

Answer **all** questions in this section.

1 Study the map extract of part of eastern Jamaica, which is at a scale of 1:50 000.

(a) Describe the land-use and relief in each of the following squares:

(i) 2942 ....

....

....[2]

(ii) 2247 ....

....

....[2]

(b) What is the feature found at 222463? .... [1]

(c) Give the six figure grid reference for the bridge where the main road crosses the Plantain Garden River, near the centre of the map extract.

.... [1]

(d) Find the hospital at Duckenfield at 278407.

(i) How far is it by road to the nearest point on the coast? .... [1]

(ii) What direction is this point on the coast from the hospital? .... [1]

(e) Describe the distribution of settlement to the north of the Plantain Garden River.

....

....

....

....

....

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....

....

....[5]

(f) Describe **four** different features of the coastline that would be seen if you walked from Booby South Point at 312471 as far as 330426.

....

....

....

....

....

....[4]

(g) Compare the A road route and the C road route from Happy Grove (2750) to the crossroads at 274444.

....

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....

....

....

....[3]

2 Study Fig. 1, showing Karachi, a city in Pakistan and Photographs A and B (Insert), s
Mohammad Nagar, a part of Karachi.
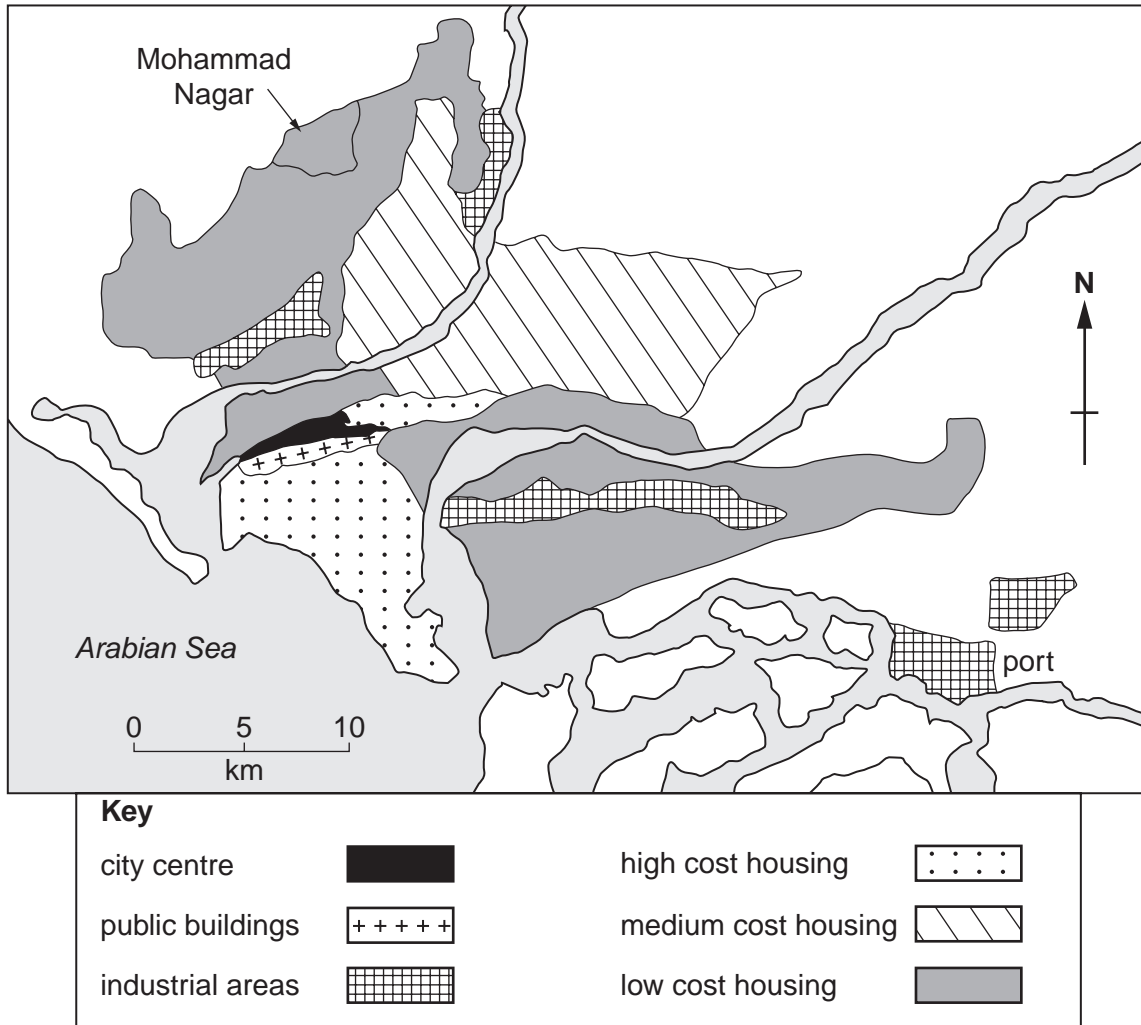
General land-use zones in Karachi

Mohammad Nagar

N

Arabian Sea

0   5   10
km

port

Key			
city centre	■	high cost housing	: : : :
public buildings	+ + + + +	medium cost housing	///
industrial areas	▦	low cost housing	▨

Fig. 1

(a) Describe the location within Karachi of:

   (i) areas of high cost housing; ....
   ....
   ....
   ....[2]

   (ii) areas of low cost housing. ....
   ....
   ....
   ....[2]
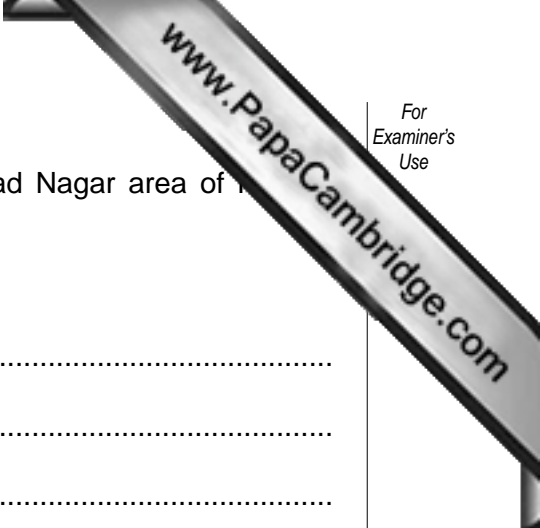
(b) Photographs A and B (Insert) were taken in the Mohammad Nagar area of shown on Fig. 1.

Describe the location of this area.

....

....

....

....[2]

(c) Using **both** Fig. 1 **and** Photographs A and B (Insert), describe the advantages and disadvantages of living in Mohammad Nagar.

Advantages ....

....

....

....

Disadvantages ....

....

....

....[4]

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3 Study Fig. 2, which shows world oil reserves and world oil consumption.

oil reserves		oil consumption
56.5%	Middle East	6.2%
14.8%	Canada	2.5%
8.1%	Central and South America	6.7%
6.6%	Eastern Europe & Former USSR	6.6%
6.4%	Africa	3.6%
2.9%	Asia	26.2%
1.9%	United States	25.5%
1.6%	Western Europe	19.2%
0.3%	Australasia	1.3%
0.9%	Others	2.2%
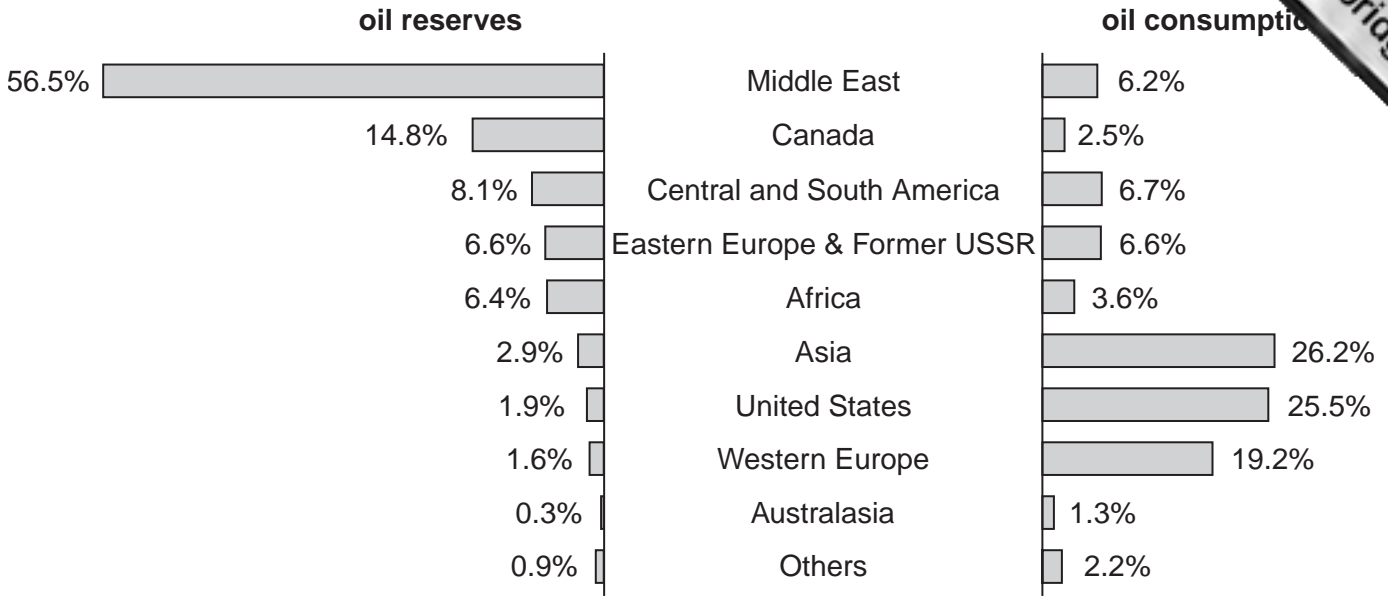
Fig. 2

(a) What is Africa's percentage of:

(i) world oil reserves; ....

(ii) world oil consumption? .... [1]

(b) Which areas have a higher percentage of oil consumption than their percentage of reserves?

....

....[2]

(c) Fig. 3A shows the route of an oil pipeline from Chad to Cameroon in Africa.
Fig. 3B shows statements about this pipeline project from a variety of organisations.
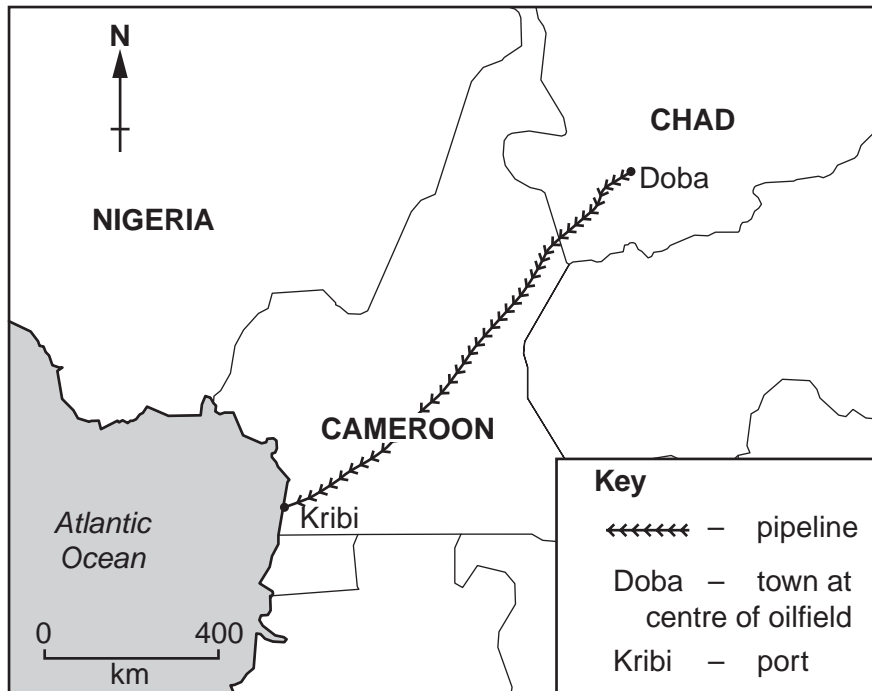
Fig. 3A

The Chad Cameroon Pipeline Project

Update
By the end of 2005 Chad had earned US$306 million from the export of its oil. The project employed over 4000 people, 80% of whom were nationals.

Chad – Poorest of the poor
Chad is one of the poorest countries in the world. Much of it is desert. Oil was discovered in the mid 90s and the World Bank was asked to support the construction of a 1100 km pipeline to the coast.

Cameroon
Cameroon has more fertile land and a better climate than Chad but over 20% of its people live on less than US$1 a day. It was hoped that the pipeline would create jobs for the local people and that taxes on the oil would be used to improve the infrastructure.

Jobs?
Most of the jobs created were unskilled and temporary. The better paid jobs went to workers from the cities.

Poverty?
Some people fear that the income from the project will not reach the poorest and that much will be lost through corruption and incompetence.

Local people?
Springs were destroyed in some local villages, leading to a loss of drinking water. Health problems and food shortages were linked to the project.

Economy?
The estimated profits are US$8 billion. Cameroon will receive 7%, Chad 22% and the oil companies 71%.

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(i) In what direction is the nearest point on the coast from the Chad oilfields?

....

(ii) Describe **three** benefits and **three** problems that the pipeline could bring to the two countries.

Benefits

1 ....

....

2 ....

....

3 ....

....[3]

Problems

1 ....

....

2 ....

....

3 ....

....[3]

4 Study Fig. 4A, a climate graph for Kano, and Fig. 4B, a map giving wind directions. Ka[...] in Nigeria, in the Sahel region of Africa.

Kano
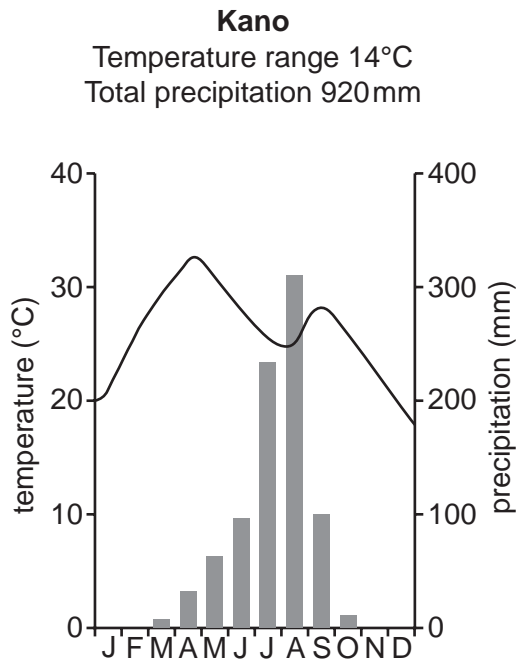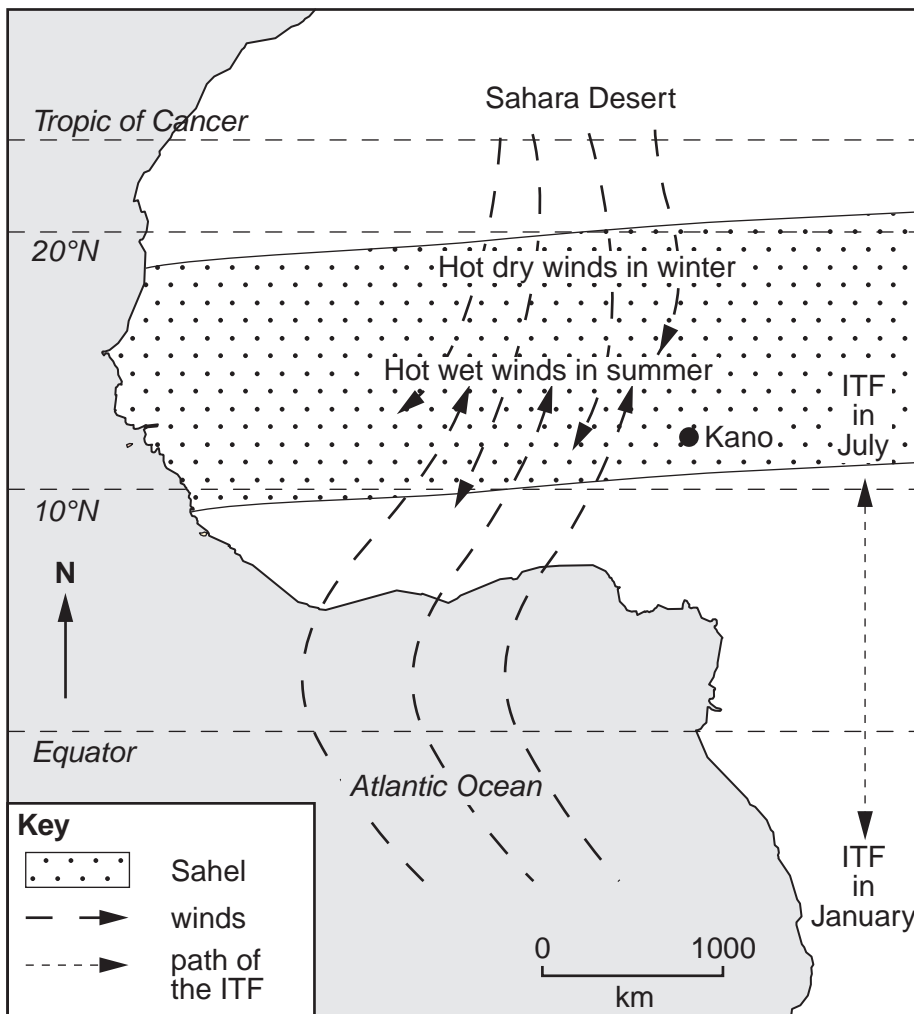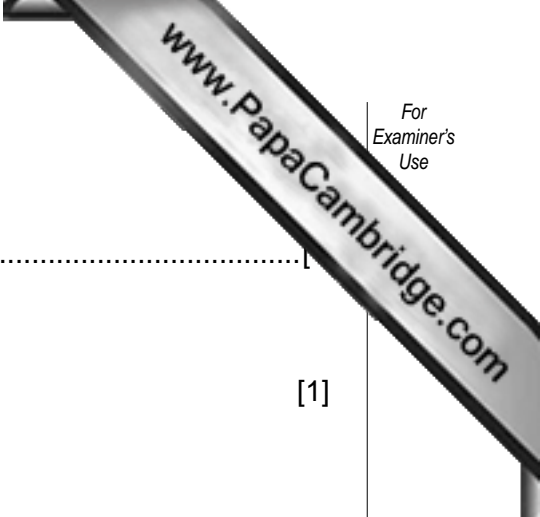Temperature range 14°C
Total precipitation 920 mm

Fig. 4A

ITF – the Inter Tropical Front

This is where the moist air from the south meets the dry air from the north. Its position is affected by the movement of the earth in relation to the sun.

(a) Which **five** months make up Kano's rainy season?

....[

(b) How much rain falls in Kano in August?

.... [1]

(c) How far is Kano from the nearest point on the coast?

.... [1]

(d) Using the information on the map, suggest why Kano is hot and dry for part of the year.

....

....

....

....[2]

(e) What weather changes cause the rainy season to arrive?

....

....

....

....[2]

(f) The Sahel region suffers from unreliable rainfall.

(i) Using evidence from the map, suggest what could cause this unreliability.

....

....[1]

(ii) State **two** possible effects of the rains not arriving in the Sahel.

1 ....

....

2 ....

....[2]

5   Study the information in Figs 5 and 6 about tourism in Kenya.

Extracts from an advertisement for a holiday in Kenya

Day 1 Nairobi/Samburu (310 km)

After breakfast drive north, cross the Equator and pass Mt Kenya, to Samburu Lodge. After lunch there will be a game drive when you should see elephant, buffalo, lion, giraffe, zebra, crocodile and many bird species.

Day 2 Samburu

Early morning game drive. Relax at midday around the swimming pool or watch the Samburu perform traditional dances. Late afternoon game drive.

Day 3 Samburu/Treetops (200 km)

Drive south for lunch at the Outspan Hotel. A short journey takes you into the Aberdare Mountains where you will spend the night at Treetops, the world-famous tree hotel. As evening approaches, buffalo, elephant and rhino join other animals at the waterhole.
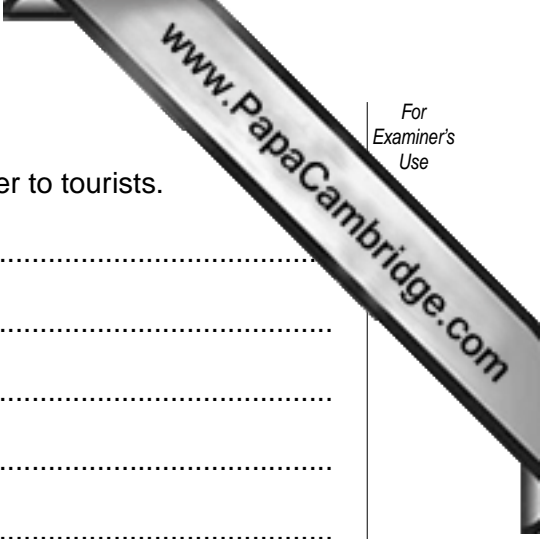
Day 7 Maasai Mara/Nairobi (260 km)

Early morning departure, arriving at Nairobi for lunch. Afternoon flight to Mombasa to continue your holiday at a beach hotel.

Fig. 5

Map of Kenya showing some of the tourist attractions

Fig. 6

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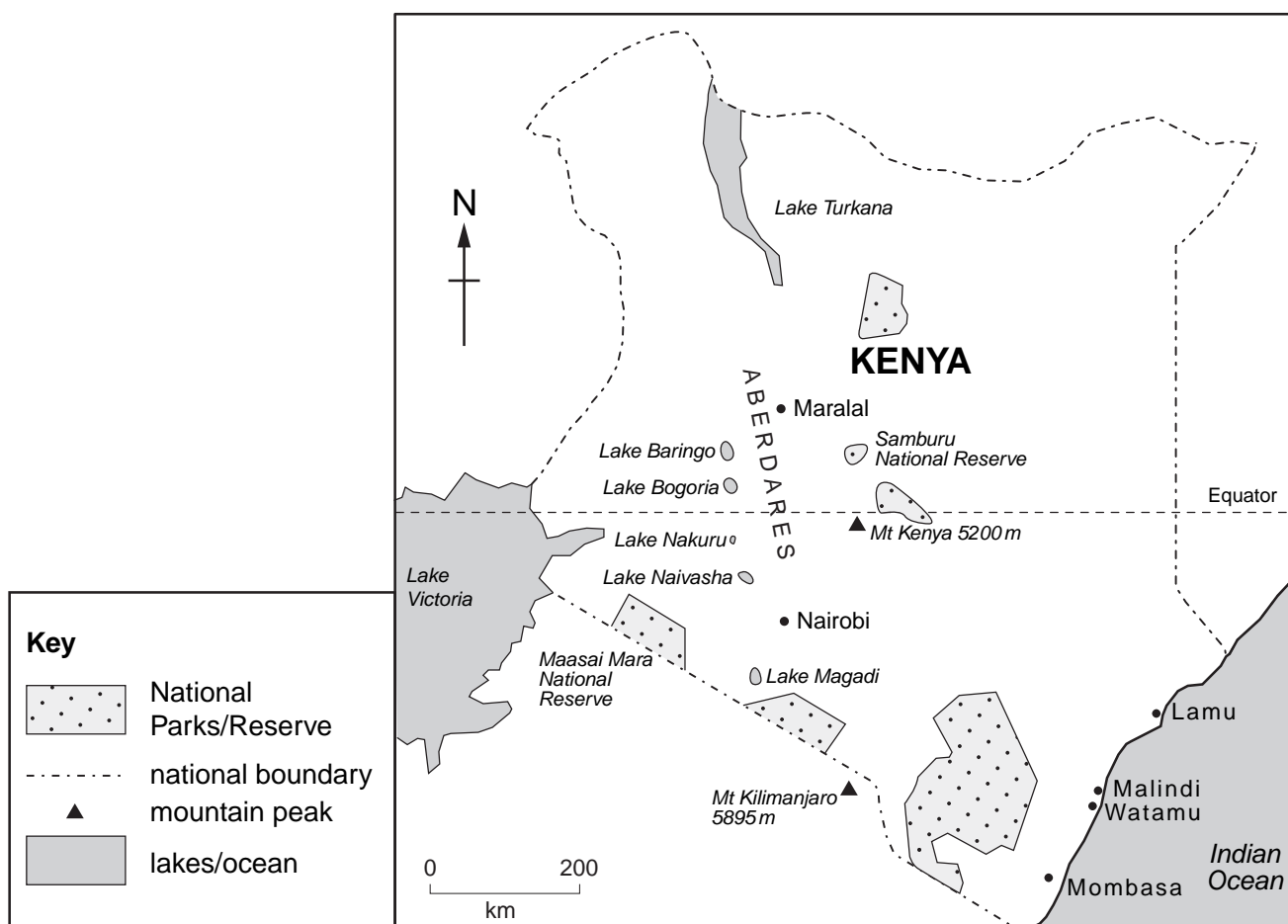
(a) (i) State **four** different types of attraction that Kenya can offer to tourists.

1 ....

....

2 ....

....

3 ....

....

4 ....

....[4]

(ii) For one of these types, give **two** reasons why it attracts tourists.

Type of attraction chosen ....

1 ....

....

2 ....

....[2]

(b) Suggest **two** ways in which tourism could benefit people in Kenya.

1 ....

....

2 ....

....[2]

(c) Suggest **two** problems that could be caused by people relying on tourism for income.

1 ....

....

2 ....

....[2]

Section B

Answer **one** question in this section.

6   Study Fig. 7. Students investigated the changes in the width and depth of a stream at three
     sites, Site A, Site B and Site C, as distance increased from the source.

(a) Complete the hypothesis for this investigation by selecting the correct words from the
     following: [1]

    decrease   increase   shallower   deeper

    'The width will _____ *and the depth will become*

    _____ *as distance from the source increases'*
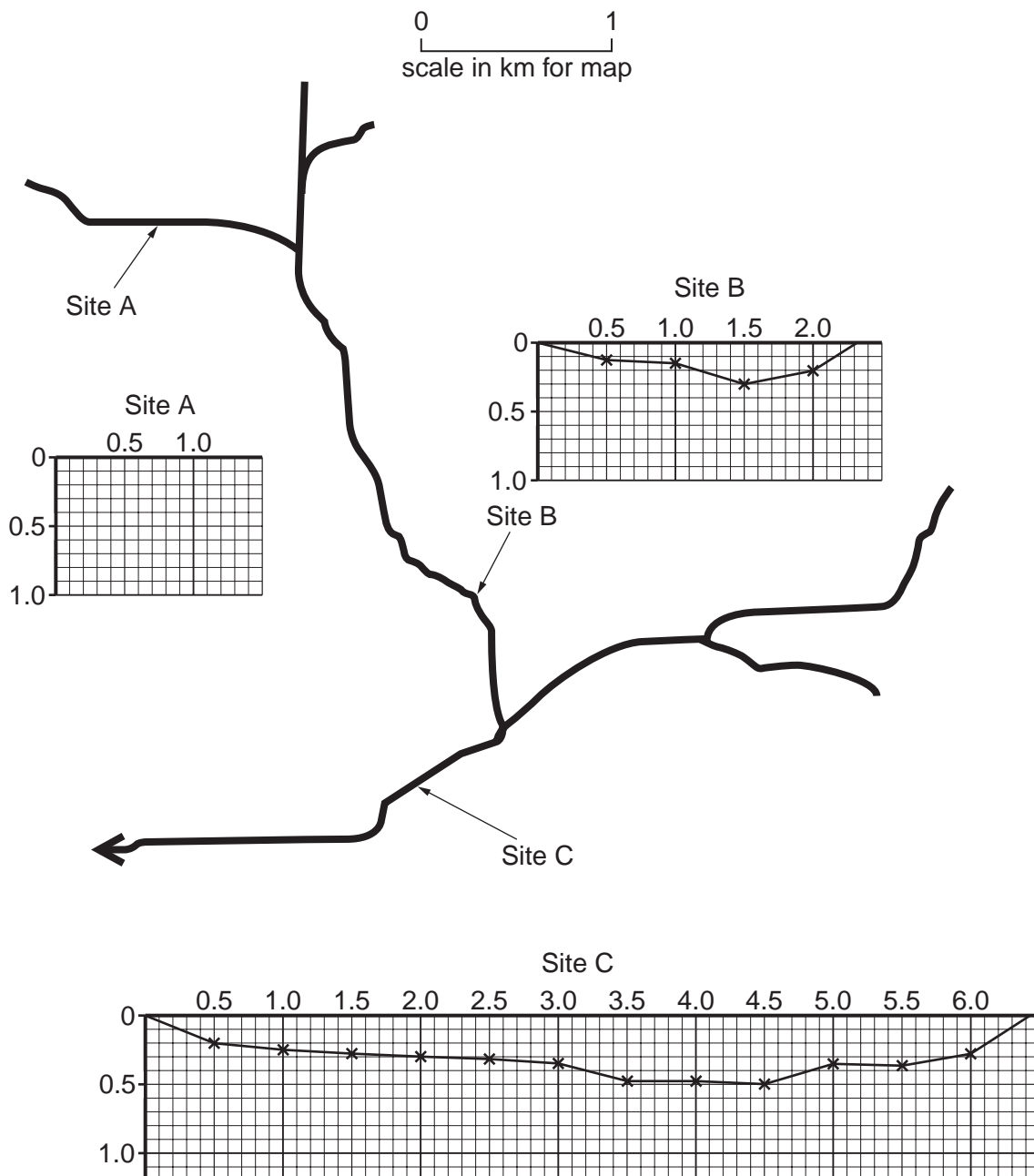
(b) (i) How did the students measure the width of the stream at each site? Their equ[...]
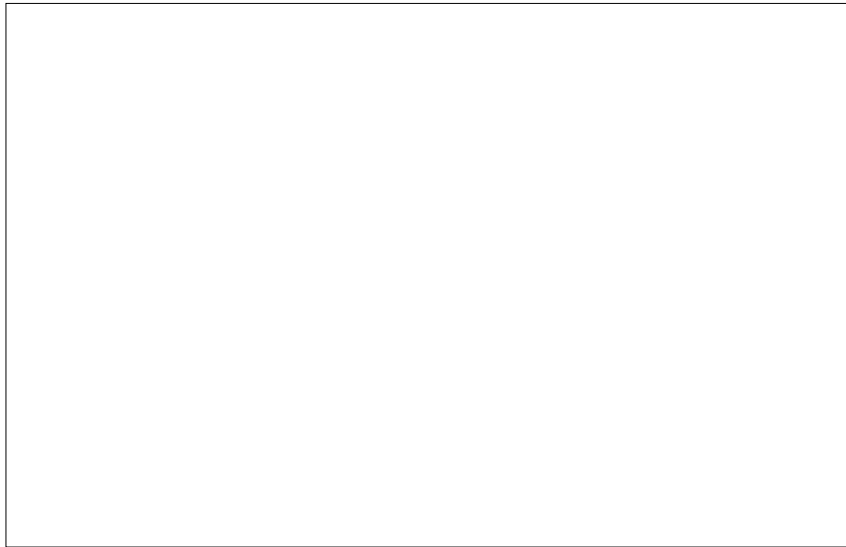included two ranging poles and a measuring tape. Draw a labelled diagram, [...]
for your answer.

Fig. 8 [3]

Table 1

Site	Total Width (m)	Depth in metres at distances from left bank												Wetted perimeter (m)	Discharge (m³/sec)
		0.5m	1.0m	1.5m	2.0m	2.5m	3.0m	3.5m	4.0m	4.5m	5.0m	5.5m	6.0m		
A	1.40	0.15	0.10											1.50	0.01
B	2.31	0.12	0.15	0.30	0.20									2.50	0.09
C	6.42	0.20	0.25	0.28	0.30	0.32	0.35	0.48	0.48	0.50	0.35	0.36	0.28		1.25

(ii) At each site, the students also measured the depth of the stream systematically (every $\frac{1}{2}$ metre). The results of the investigation are shown in Table 1.

Draw a line graph for Site A on Fig. 7, to show the depth of the stream, using information from Table 1. [3]

(c) (i) The wetted perimeter is the amount of bank and bed which the stream water touches.

Use Fig. 7 to calculate the length of the wetted perimeter at Site C. Write your answer in Table 1. [2]

(ii) Explain how the wetted perimeter can change the speed of the river.

....

....

....[2]

(d) (i) The students also measured the velocity of the stream at each site. A ____ object was timed travelling over a distance of 10 metres. The recording sheet fo ____ B is shown in Fig. 9. Fill in two other pieces of important information on the record ____ sheet.

Location	Site B				
Time in seconds of floating object over 10 metres					
18.0	16.8	15.4	18.5	13.3	

Fig. 9   [2]

(ii) State a reason why the timing of the floating object over 10 metres was repeated five times.

Reason ....

....[1]

(iii) The cross-sectional area is used to calculate the discharge. Look again at Fig. 7 and select the cross-sectional area most appropriate for Site B from the possibilities below. Underline your answer.   [1]

$3.29\,m^2$ $0.32\,m^2$ $0.09\,m^2$

(e) Study Table 1 and Fig. 7 again. Describe how the following characteristics of the stream change from Site A to Site C. You should state data to support your descriptions.

Width

....

....

....

....

Depth

....

....

....

....

Discharge

....

....

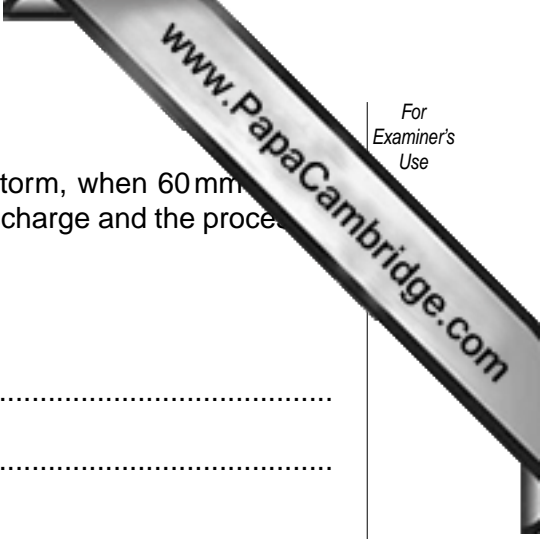...

(f) The stream was measured again at the same sites after a storm, when 60 mm
fell in 48 hours. Describe how this storm would change the discharge and the proce...
of the stream.

Discharge change

....

....

Processes change

....

....

....

....[3]

(g) (i) Describe in detail how the investigation could be improved. Suggest reasons for
these improvements.

....

....

....

....

....

....

....

....[4]

(ii) Write a brief conclusion to this investigation.

....

....

....

....

....

....[2]

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7 Students at an international school in Spain investigated migration and population in in a coastal tourist town. The teacher suggested the main reason for the population incre was the growth in worldwide tourism in the past 40 years.

(a) Suggest **three** reasons why there has been a growth in worldwide tourism in the past 40 years.

Reason 1 ....

....

Reason 2 ....

....

Reason 3 ....

....[3]

The students wrote a short questionnaire to investigate the hypothesis

'people who moved to the tourist town came from countries close to Spain'

The questionnaires were given to 100 parents at a school event. Study the questionnaire shown in Fig. 10.

Questionnaire to investigate migration

Q1   Were you born in this coastal town?   YES   ☐

                                                              NO   ☐

Q2   How long have you lived here?   Under 10 yrs.   ☐

                                                    10 – 19 yrs   ☐

                                                   20 – 29 yrs.   ☐

                                                   30 – 39 yrs.   ☐

                                                   40 – 49 yrs.   ☐

                                                   Over 50 yrs.   ☐

Q3   In which country were you born?   ☐

Fig. 10

(b) (i) Why was it important to ask Question 1 (shown in Fig. 10)?

....

....[1]

(ii) State **one** advantage and **one** disadvantage of the method of using paren[...] source of data.

Advantage

....

....

Disadvantage

....

....[2]

Table 2

Q1. Were you born in this coastal town?	Yes = 69%		No = 31%			
Q2. How long have you lived here?			Born in coastal town		Not born in coastal town	
	Under 10 yrs		0		13	
	10–19 yrs		0		10	
	20–29 yrs		6		4	
	30–39 yrs		19		4	
	40–49 yrs		33		0	
	Over 50 yrs		11		0	
Q3. In which country were you born?	USA	2	Norway	1	UK	6
	Brazil	2	Netherlands	2	Thailand	1
	Italy	2	France	1	Germany	2
	Austria	1	Tunisia	4	India	3
	Spain	4				

(c) (i) Table 2 shows the results of the questionnaire.

Using the results of Question 2 in Table 2, complete the bar graph, Fig. 11. Use the key and write a title to the graph.
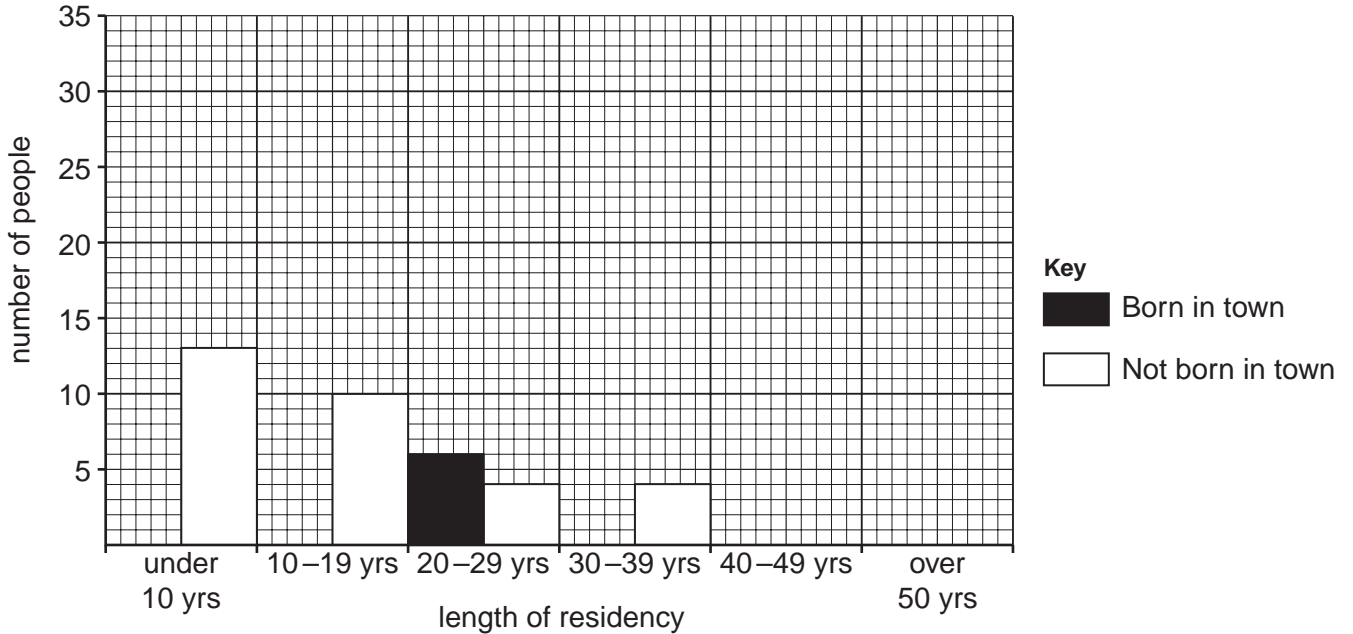
Title ....

Fig. 11 [4]

(ii) Look again at the results of Questions 1 and 2 in Table 2 and the graph, Fig. 11. Describe the pattern shown by the data.

....

....

....

....

....

....

....[3]

Scale: 1 mm = 1 person

Fig. 12

(d) (i) Study Fig. 12, which shows responses to Question 3 on the questionnaire.
Add the flow lines for India and Thailand using the data in Table 2. [2]

Table 3

Europe	19
North America	2
South America	2
Asia	4
Africa	4

(ii) Study Table 3, which shows which continent the migrants came from. Suggest why so many of the migrants came from European countries.

....

....

....

....

....

....

....[3]

(iii) Write a conclusion to this investigation.

Is the hypothesis correct?

Give reasons for your answer. Support your reasons by stating data.

Suggest how the investigation could be improved.

....

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....

....

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....

....

....[5]

(e) The students decided to find out more about why people move to the coastal town. They found information about the town on the internet. This information is shown on Fig. 13.

> 45 years ago this coastal town was a small fishing and market town. It had very few shops and just one hotel. Restaurants, bars and hotels were rapidly built from 1960 onwards. This provided many employment opportunities and an international airport opened in 1965. The roads were improved to cope with the increase in visitors, who wanted to enjoy the warm climate and local culture.

Fig. 13

(i) The internet information is secondary data. What is *secondary data*? State **two** other examples of secondary data.

....

....

....[2]

(ii) On Fig. 13 underline the pull factors of people moving to live in this tourist town. [2]

(iii) The students decided to write an additional question to investigate the different reasons why people moved to live in the town.

On Fig. 14 write a suitable question in the style of Question 2 (Fig. 10), as part of that questionnaire.

Fig. 14   [3]

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