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Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME

CENTRE NUMBER | | | | | |

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1686914389

GEOGRAPHY **0460/21**

Paper 2 **October/November 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.
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.

This document consists of **16** printed pages and **1** Insert.

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

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

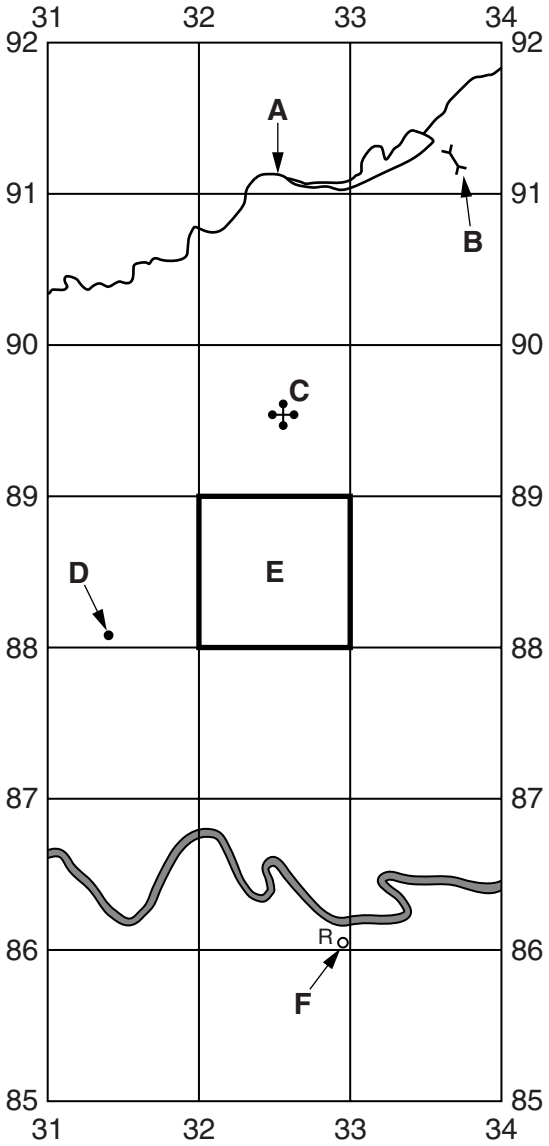

Fig. 1

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

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

..... [1]

(ii) feature **B**;

..... [1]

(iii) feature **C**;

..... [1]

(iv) the height above sea level at point **D**;

..... [1]

(v) the main land use in area **E**;

..... [1]

(vi) feature **F**.

..... [1]

(b) Look at the Nkazhe river in the south of the map extract. Which **four** of the following statements about the river are true? Tick **four** boxes in the table below.

Statement	Tick (✓)
The river flows towards the north	
The river is about 100 metres wide	
The river flows across land lower than 800 metres above sea level	
The river runs through orchard or plantation	
The river has many tributaries	
The river flows towards the east	
There is a dam on the river	
There are rapids on the river	
The river meanders	
There are waterfalls on the river	

[4]

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(c) **(i)** What is the main settlement pattern shown on the map? Tick (✓) **one** correct answer below.

	Tick (✓)
dispersed	
linear	
nucleated	

[1]

(ii) Suggest **one** reason why this settlement pattern has developed.

.....

..... [1]

(iii) Study the settlements shown on the map. What is the main type of building in the settlements?

..... [1]

(d) Fig. 2 is a cross section from north to south through Banbanika hill and the Nkazhe river from 282900 to 282850.

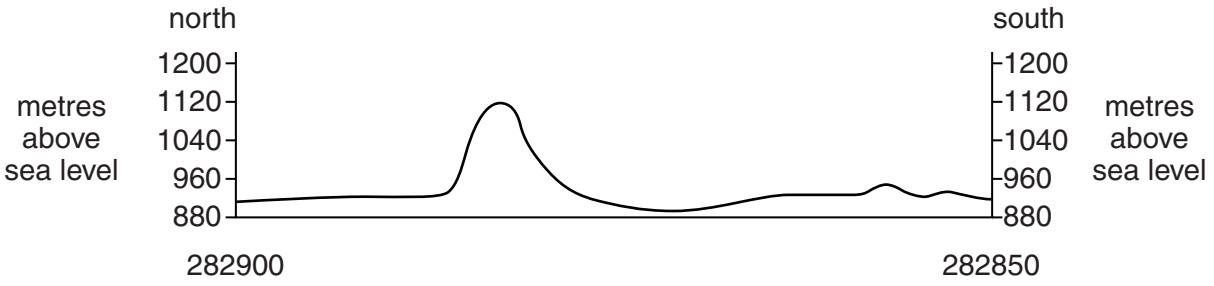

Fig. 2

On Fig. 2, using labelled arrows, mark the positions of:

(i) the Nkazhe river; [1]

(ii) the south facing slope of Banbanika hill; [1]

(iii) a track. [1]

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(e) A person travels along the road from Nkazhi School to Matshiya School. The location of the two schools and the road is shown on Fig. 3.

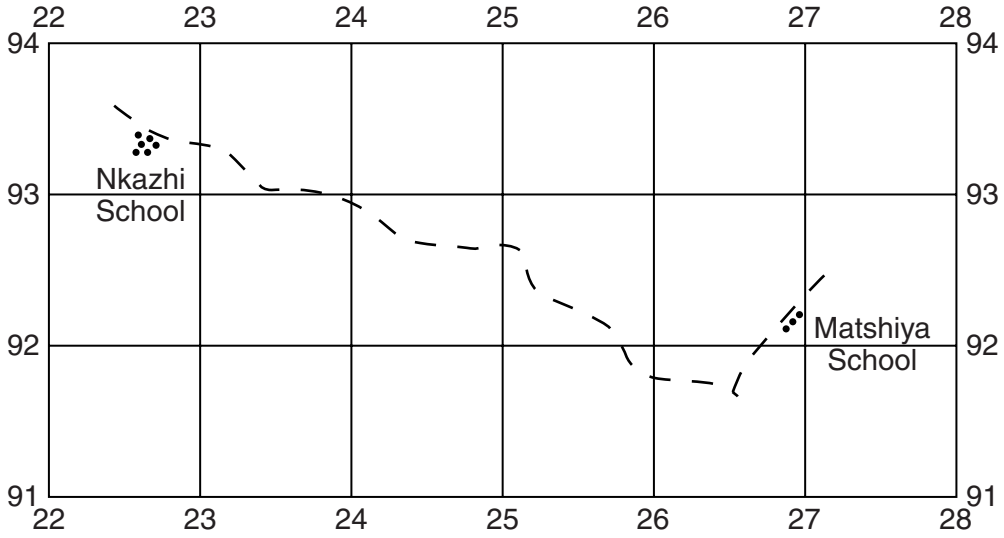

Fig. 3

(i) What is the main type of land-use on either side of the road?

..... [1]

(ii) In which compass direction does the person travel **from** Nkazhi School **to** Matshiya School? Tick (✓) **one** correct answer in the table below.

	Tick (✓)
north	
south	
east	
west	

[1]

(iii) Estimate the distance that the person travels. Tick (✓) **one** correct answer in the table below.

	Tick (✓)
5 km	
7 km	
9 km	
11 km	

[1]

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(iv) What is the average height above sea level of the road? Tick (✓) **one** correct answer in the table below.

	Tick (✓)
900 metres	
940 metres	
980 metres	
1000 metres	

[1]

[Total: 20 marks]

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2 **(a)** Fig. 4 shows some recent international population migrations affecting Asia.

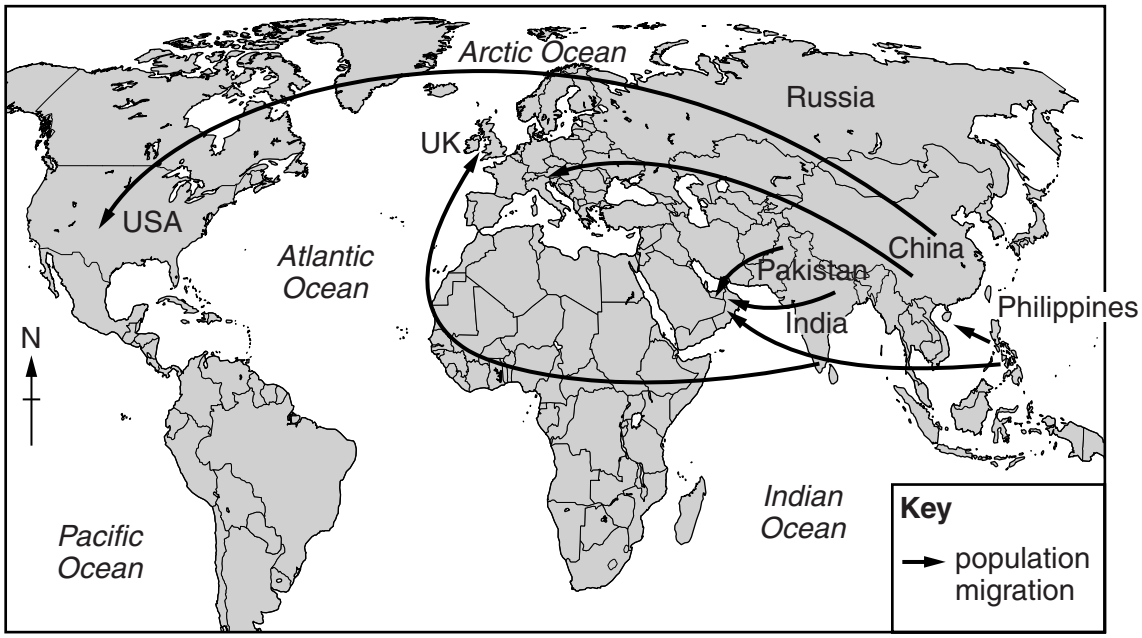

Fig. 4

Using Fig. 4 **only**, describe the different population migrations affecting Asia.

.....

.....

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.....

.....

.....

.....

.....

.....

..... [5]

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(b) Fig. 5 gives information about the populations of four countries. It shows statistics about the percentage of each country's population born in another country.

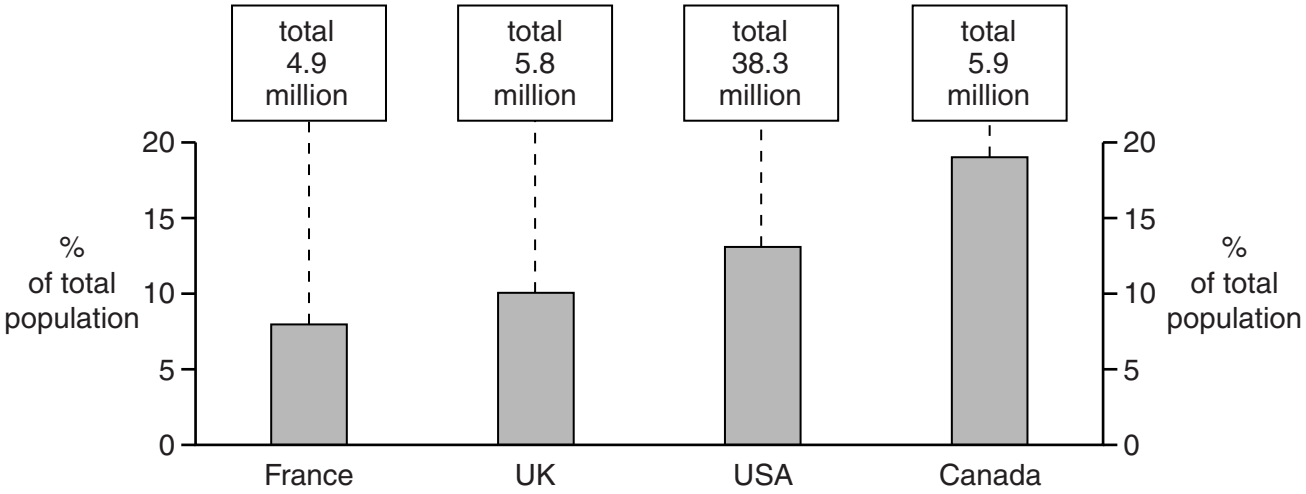

Fig. 5

(i) Which **one** of the four countries has the greatest percentage of people born in another country and what is the percentage?

Country ....% [1]

(ii) Which **one** of the four countries has the least number of people born in another country and what is the number?

Country .... million [1]

(iii) Using information from Fig. 5, how do the statistics for the USA differ from those of the other three countries?

.....

..... [1]

[Total: 8 marks]

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3 Photographs A and B (Insert) show two river valleys.

(a) Identify features **X**, **Y** and **Z** on Photograph A.

Choose your answers from the list below:

flood plain, *V-shaped valley*, *meanders*, *plateau*, *levees*, *interlocking spurs*.

X .....

Y .....

Z ..... [3]

(b) Describe the river and the relief of the valley in Photograph B.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

[Total: 8 marks]

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4 Fig. 6 shows the areas of tropical rainforest climate and tropical desert climate in South America. Fig. 7 shows the climates of Arica in the tropical desert and Iquitos in the tropical rainforest. Study Figs 6 and 7 and answer the questions on the opposite page.

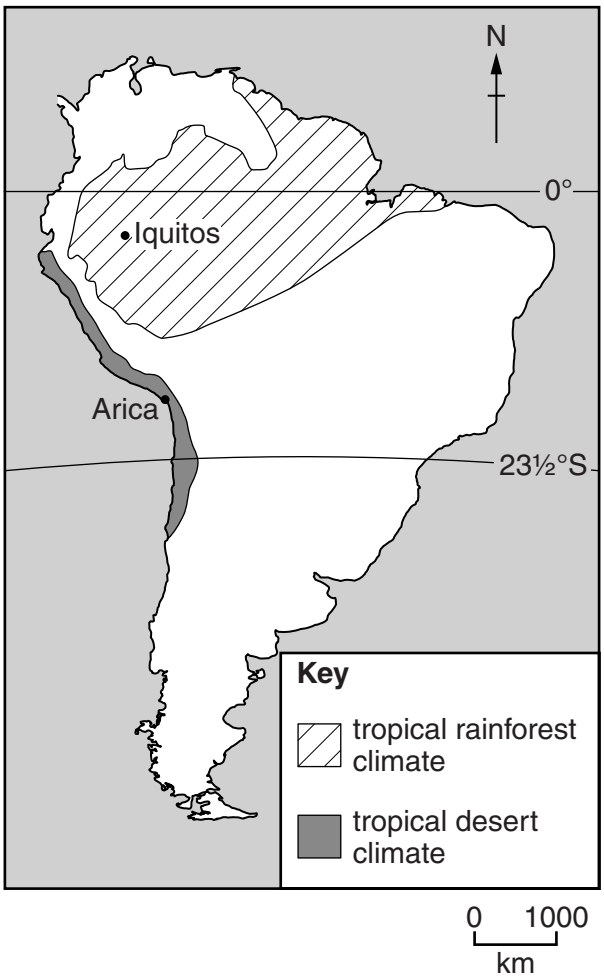

Fig. 6

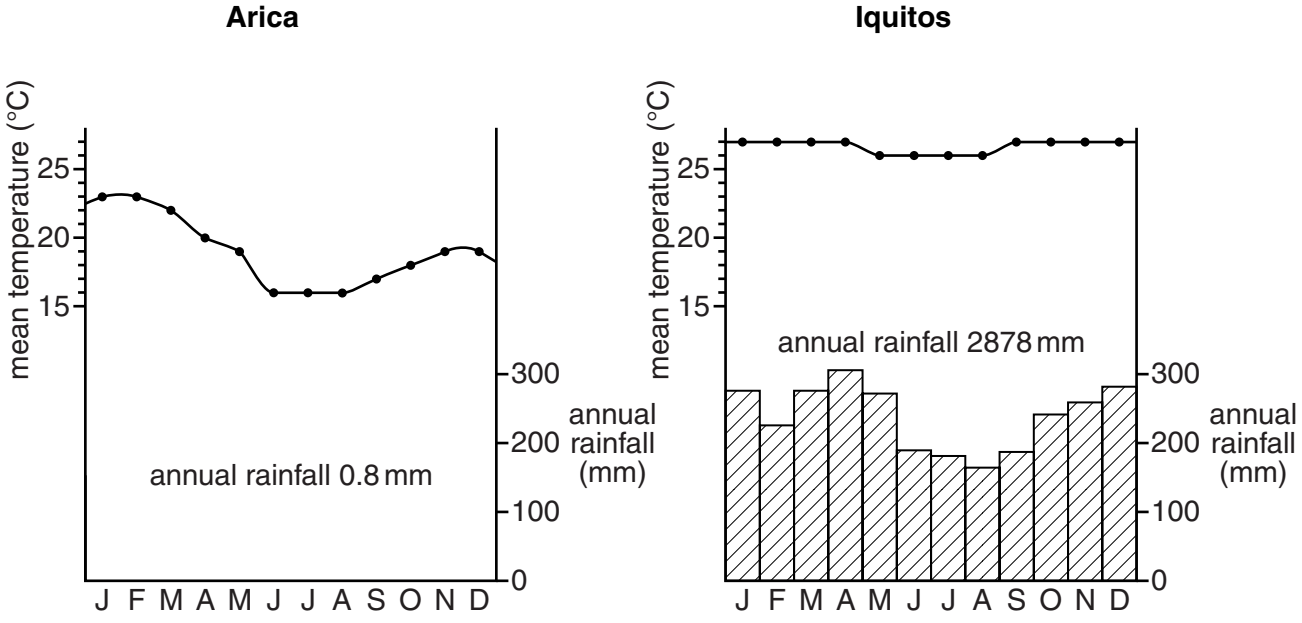

Fig. 7

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(a) Describe the distribution of the area of tropical rainforest climate shown on Fig. 6.

.....

.....

.....

..... [2]

(b) Describe the difference between the annual temperature range at Arica and the annual temperature range at Iquitos shown on Fig. 7.

.....

.....

.....

..... [2]

(c) **(i)** Give reasons for the amount of rainfall at Arica.

.....

.....

.....

..... [2]

(ii) Give reasons for the temperatures at Iquitos.

.....

.....

.....

..... [2]

[Total: 8 marks]

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5 Table 1 shows the use of agricultural land in Kazakhstan.

Table 1

Land use	Percentage of total area
pasture	61
arable	32
fallow	4
hay	3

(a) Use information from Table 1 to complete Fig. 8 below. Use the key provided. [2]

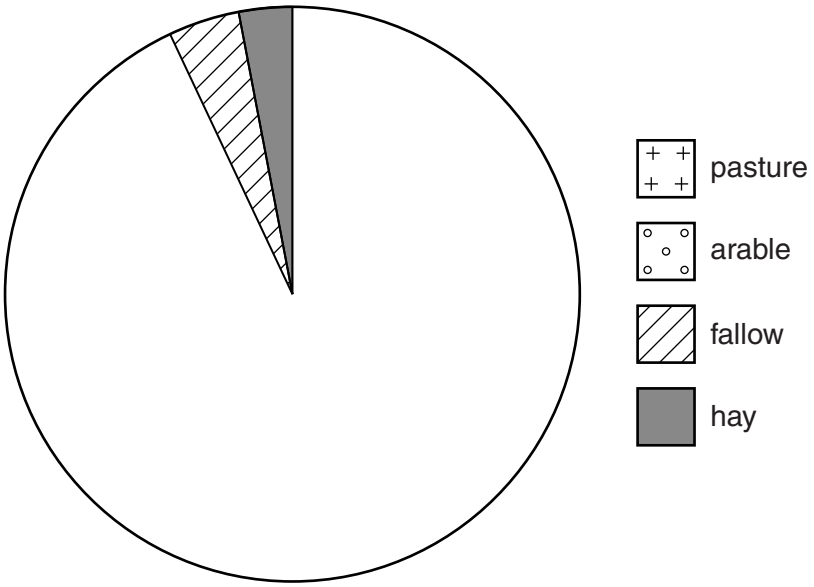

Fig. 8

(b) (i) What is the difference between *commercial farming* and *subsistence farming*?

.....

..... [1]

(ii) Describe **one** difference between *intensive farming* and *extensive farming*.

.....

..... [1]

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(c) Fig. 9 gives information about wheat farming in Kazakhstan.

Wheat farming in Kazakhstan

Kazakhstan is one of the world's big producers and exporters of wheat. Wheat is mainly grown in north-central Kazakhstan where there are fertile soils and the land is flat. Individual fields frequently measure over 400 hectares. Precipitation is low, about 450 mm per year, and wheat fields in this region are not irrigated. The region is subject to frequent drought.

The use of fertilizer increased by nearly 500% between 1999 and 2007 and continues to increase due in part to the government subsidising prices. A technological factor contributing to the improvement in Kazakhstan's wheat yield is the increase in the use of improved seeds. The government provides support to agricultural research facilities.

The efficiency of Kazakhstan's agricultural machinery is improving, mainly because of the replacement of ageing combined harvesters with new equipment. 77% of the total grain output is produced on farms that are larger than 5000 hectares. Family farms are substantially smaller than this. Family farms and the larger farms produce mainly for sale rather than for private consumption.

Fig. 9

(i) Using Fig. 9 **only**, give **one** physical input of wheat farming in Kazakhstan.

.....

..... [1]

(ii) Using Fig. 9 **only**, give **one** human input of wheat farming in Kazakhstan.

.....

..... [1]

(iii) Is wheat farming in Kazakhstan commercial or subsistence? Give **one** piece of evidence from Fig. 9 to support your answer.

.....

..... [1]

(iv) Is wheat farming in Kazakhstan intensive or extensive? Give **one** piece of evidence from Fig. 9 to support your answer.

.....

..... [1]

[Total: 8 marks]

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6 Bulgaria, a country in eastern Europe, is encouraging industrial development.

(a) Table 2 shows the current employment structure in Bulgaria.

Table 2

Sector	Percentage of employment
primary	8
secondary	35
tertiary	57

Use the information in Table 2 to complete Fig. 10, the divided bar graph below. Use the key provided. [2]

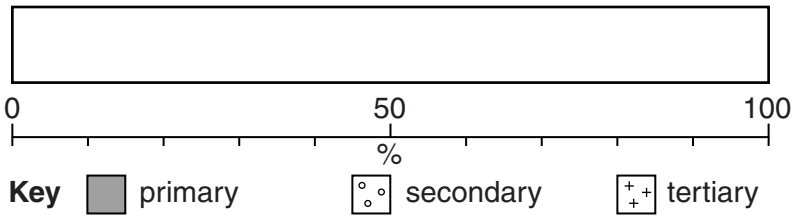

Fig. 10

(b) Development is being encouraged at three industrial sites near the city of Plovdiv. These are at Kuklen, Maritsa and Parvomay. The three sites and their sizes are shown on Fig. 11. Study Fig. 11 and answer the questions on pages 15 and 16.

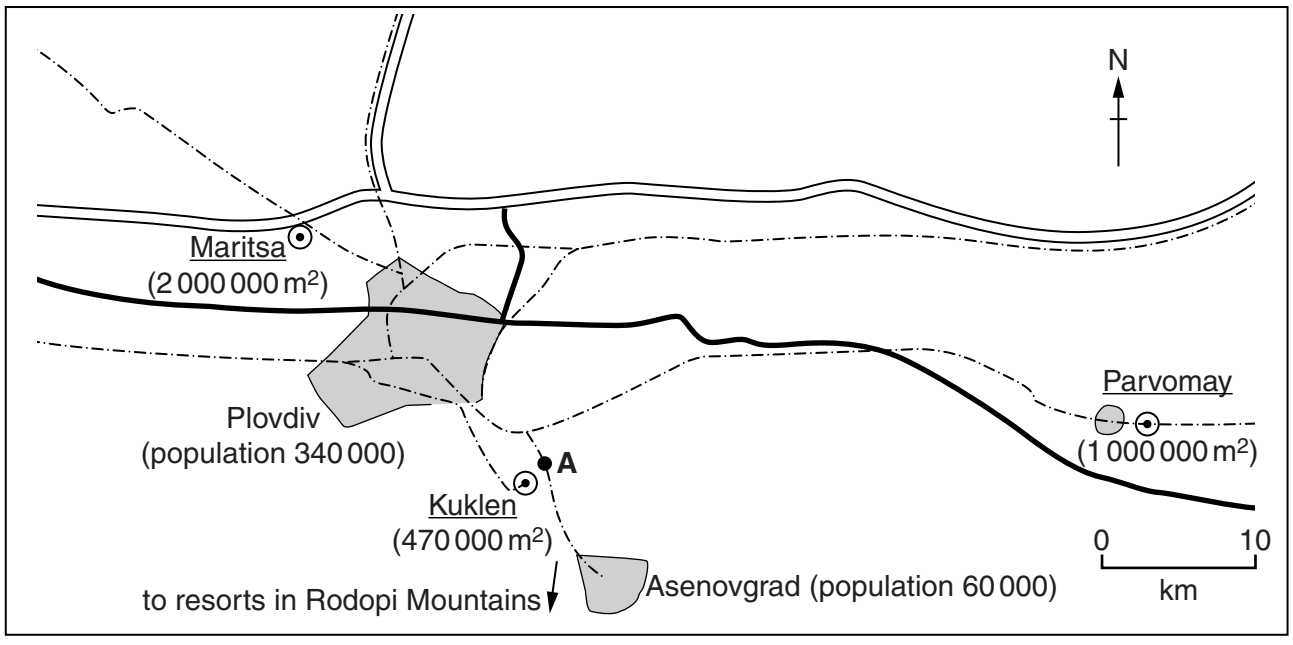

Fig. 11

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For each of the following factors, choose the site which offers the best facilities. Tick **one** box for each factor and give a reason for your choice.

(i) Road transport

Site	Kuklen	Maritsa	Parvomay	No difference
Tick (✓)				

Reason .....

..... [1]

(ii) Air transport

Site	Kuklen	Maritsa	Parvomay	No difference
Tick (✓)				

Reason .....

..... [1]

(iii) Rail transport

Site	Kuklen	Maritsa	Parvomay	No difference
Tick (✓)				

Reason .....

..... [1]

(iv) Market and labour supply

Site	Kuklen	Maritsa	Parvomay	No difference
Tick (✓)				

Reason .....

..... [1]

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(v) Amount of land available

Site	Kuklen	Maritsa	Parvomay	No difference
Tick (✓)				

Reason .....

..... [1]

(vi) Closeness to resorts

Site	Kuklen	Maritsa	Parvomay	No difference
Tick (✓)				

Reason .....

..... [1]

[Total: 8 marks]

Copyright Acknowledgements:

Question 2 Fig. 4 © Garrett Nagle and Briony Cooke; *Geography*; OUP; 2011; ISBN 0199135436.
Question 3 Photographs A & B D Kelly © UCLES.
Question 5 Fig. 8 Adapted from: www.eng.stat.kz
Question 6 Table 2 © http://www.industrial-zones.com/rakovski_eng.html

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