GradeMax

Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME

CENTRE NUMBER | | | | | |

CANDIDATE NUMBER | | | | |

7611817912

GEOGRAPHY **0460/21**

Paper 2 **May/June 2015**

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 Photograph A for Question 3, and Photographs B and 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 **14** printed pages, **2** blank pages and **1** Insert.

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CAMBRIDGE International Examinations

[Turn over

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1 Study the map extract for Umvukwe Range, Zimbabwe. The scale is 1:50 000.

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

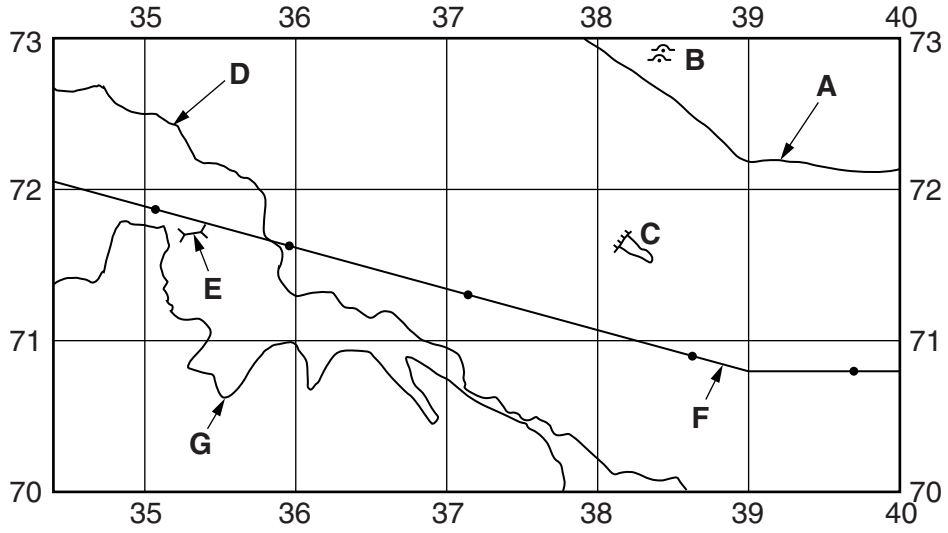

Fig. 1

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

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

.....[1]

(ii) features **B**;

.....[1]

(iii) feature **C**;

.....[1]

(iv) the name of river **D**;

.....[1]

(v) feature **E**;

.....[1]

(vi) feature **F**;

.....[1]

(vii) the height of contour **G**.

.....[1]

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(b) Fig. 2 is a cross section along northing 72 from 410720 to 480720.

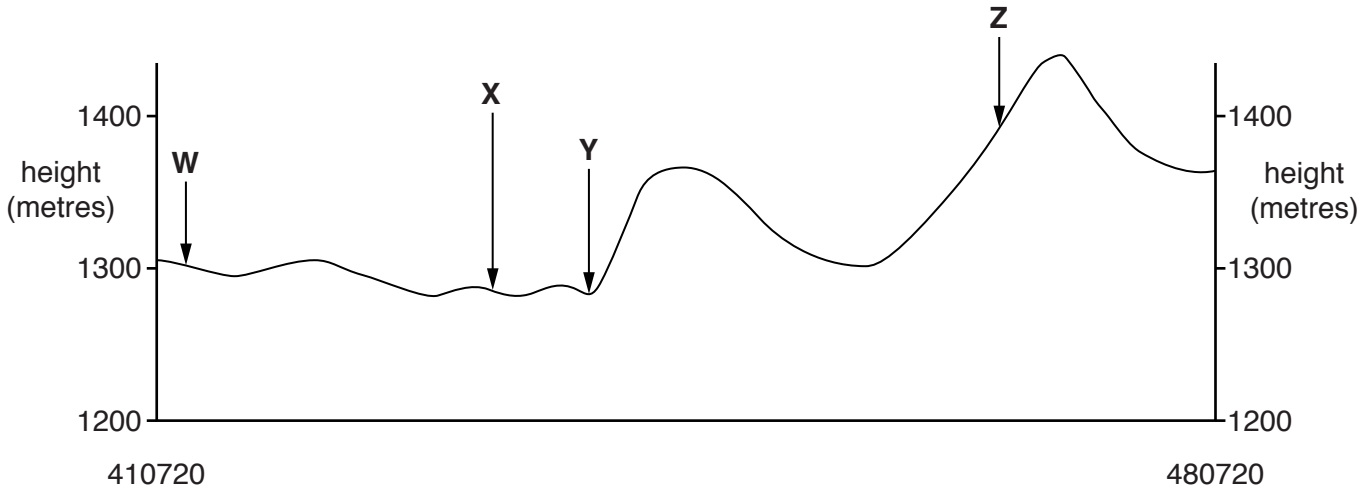

Fig. 2

Identify the following features shown on Fig. 2:

(i) the land use at **W**;

.....[1]

(ii) the transport feature at **X**;

.....[1]

(iii) the feature on the river at **Y**;

.....[1]

(iv) the vegetation at **Z**.

.....[1]

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(c) Look at the Mukwadzi river. Which **three** of the following statements about the river and its valley are true? Tick **three** boxes.

Statement	Tick (✓)
The river has variable width	
The river flows through orchard or plantation	
The river flows across land lower than 1000 metres above sea level	
There are some settlements next to the river	
The river has no tributaries	
The river has waterfalls	
There are no bridges across the river	
Parts of the river valley in the south-east are narrow	

[3]

(d) The Umvukwe Range is shown in the east of the map extract. Describe how the height, gradient and cultivation of the Umvukwe Range is different from the rest of the map.

Height above sea level

.....

.....[1]

Gradient of slopes

.....

.....[1]

Amount of cultivation

.....

.....[1]

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(e) Fig. 3 shows the roads in the south east of the map extract.

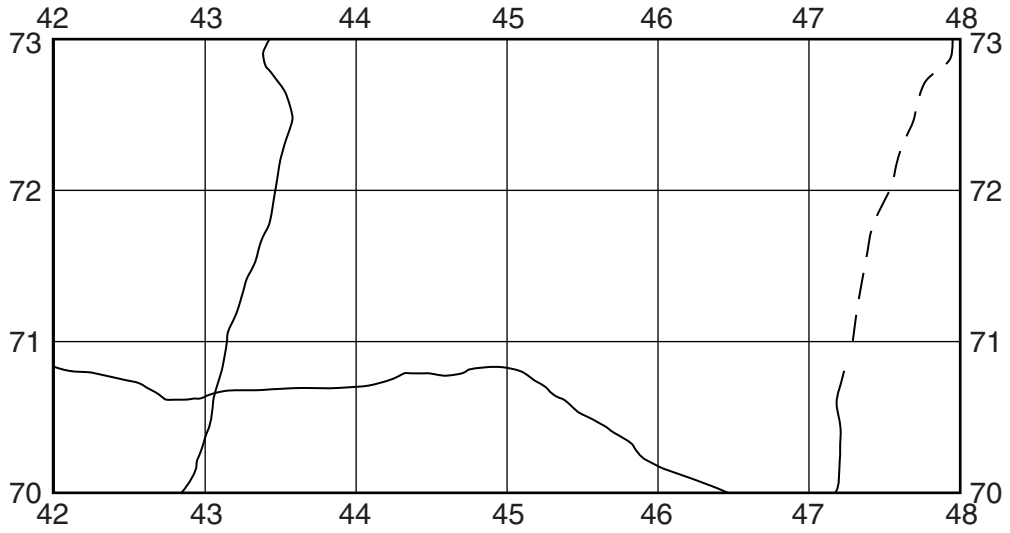

Fig. 3

Describe how the routes of the roads have been affected by relief.

.....

.....

.....

.....

.....

.....[3]

[Total: 20 marks]

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2 Fig. 4 shows plate boundaries (plate margins), plate movements and earthquake epicentres in part of North America and the Pacific Ocean.

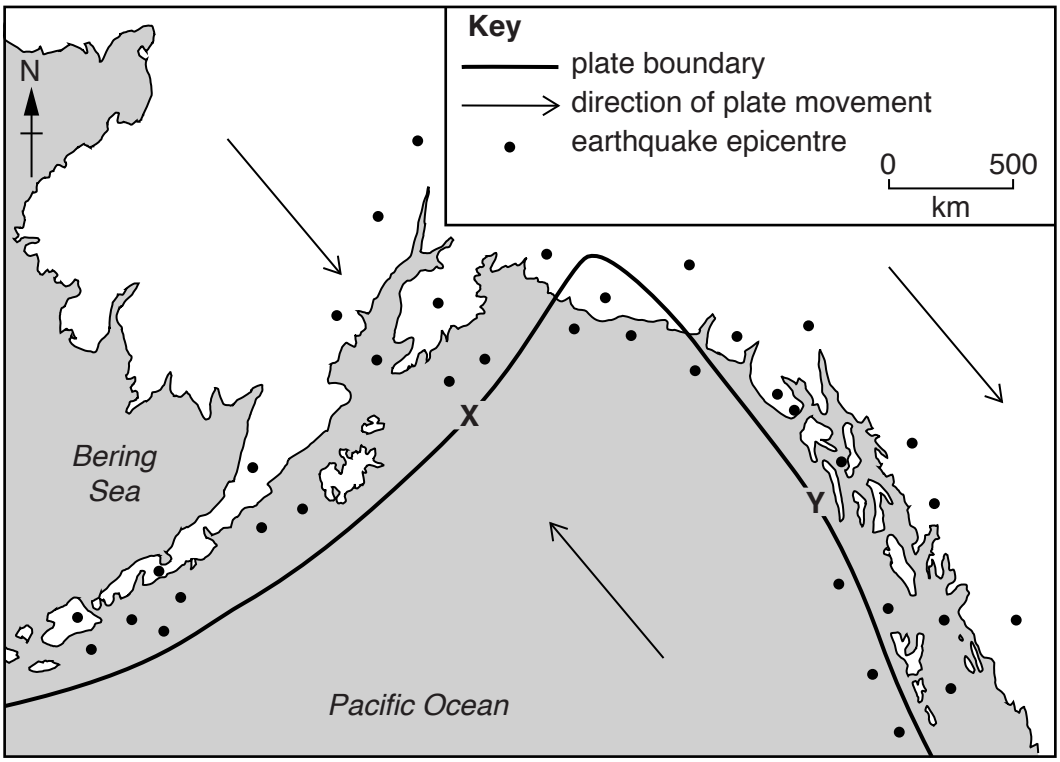

Fig. 4

(a) What is meant by the following terms:

(i) epicentre;.....

.....[1]

(ii) plate? .....

.....[1]

(b) Identify the types of plate boundary shown at **X** and **Y** on Fig. 4.

X……..

Y…….. [2]

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(c) Fig. 5 shows the effects of one of the earthquakes in the area. An intensity value of 12 is strong and 1 is weak.

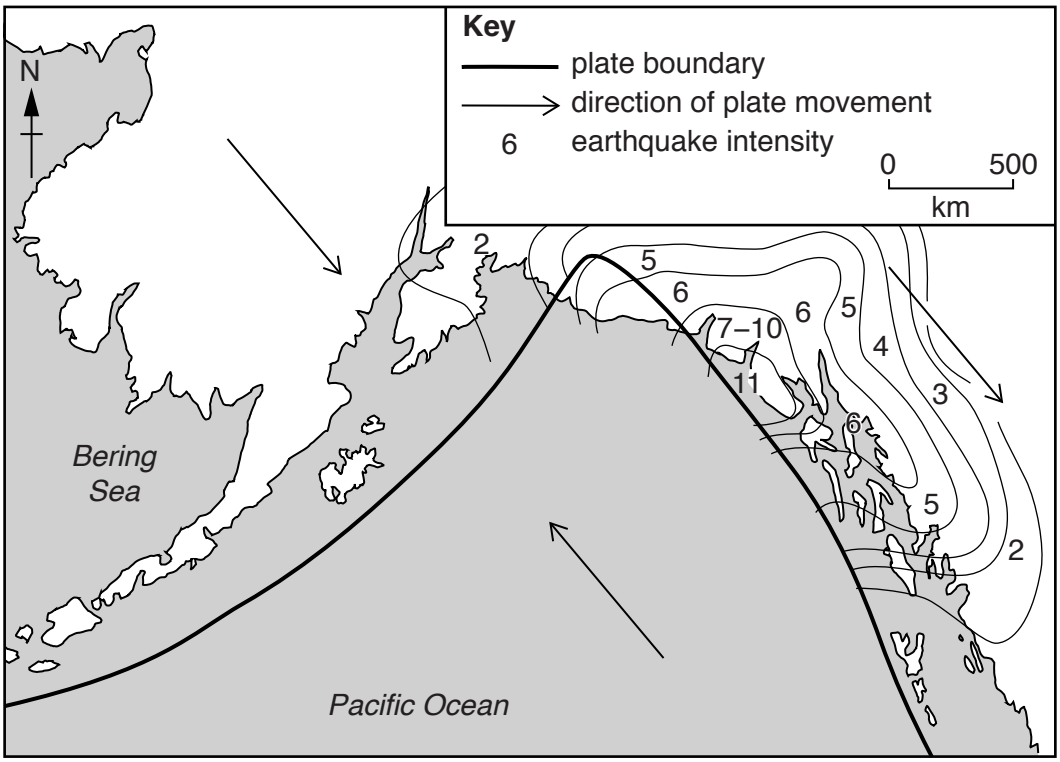

Fig. 5

(i) On Fig. 5, mark the position of the epicentre of the earthquake with the letter E. [1]

(ii) Using information from Fig. 5 and your own knowledge, explain the cause of the earthquake.

.....

.....

.....

.....

.....

.....[3]

[Total: 8 marks]

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[Turn over

3 **(a)** Table 1 shows some processes which occur at the Earth's surface.

Table 1

A	carbonation
B	traction
C	frost shattering
D	exfoliation
E	saltation
F	suspension
G	erosion

For each of the following descriptions, choose the correct process from Table 1.

(i) The process by which solid material moves along the bed of a river in a series of hops.

letter …….. [1]

(ii) The process by which a river or waves in the sea wear away and remove rocks and weathered material.

letter …….. [1]

(iii) The process occurring in deserts where layers of rock peel off parallel to the surface.

letter …….. [1]

(iv) The process where calcium carbonate in limestone is attacked by carbonic acid produced in rainwater.

letter …….. [1]

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(b) Study Photograph A (Insert). Describe and explain the evidence of weathering seen in the photograph.

.....

.....

.....

.....

.....

.....

.....

.....

.....[4]

[Total: 8 marks]

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4 **(a)** Photograph B (Insert) shows part of Moscow, Russia.

(i) Describe the buildings seen in the photograph.

.....

.....

.....

.....

.....

.....

.....

.....[4]

(ii) Suggest which land use zone of the city is shown in the photograph.

.....[1]

(b) Photograph C (Insert) shows part of Johannesburg, South Africa. Describe the evidence seen in the photograph which suggests that this is a suburban shopping area.

.....

.....

.....

.....

.....

.....[3]

[Total: 8 marks]

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[Turn over

5 Fig. 6 gives information about the wheat production of the world's ten leading wheat producing countries. Fig. 7 shows the location of these countries. Study Figs 6 and 7 and answer the questions on the page opposite.

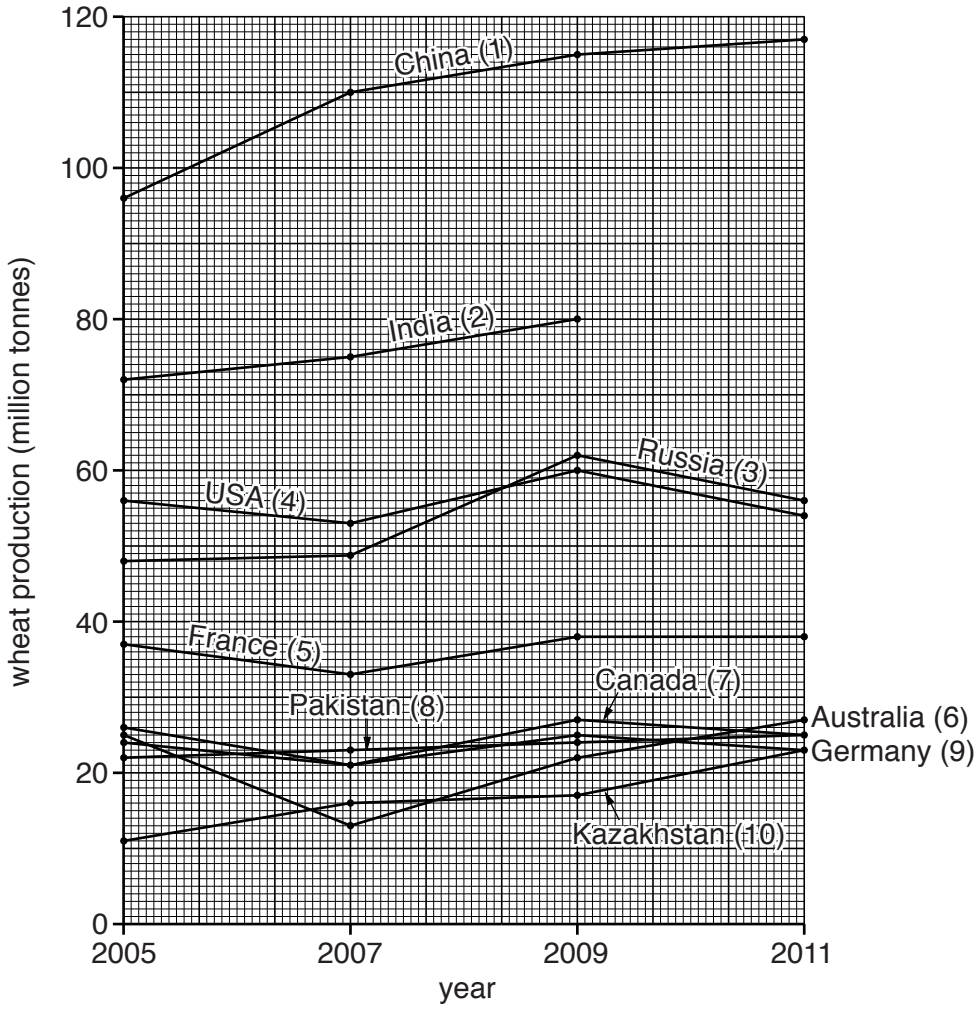

Fig. 6

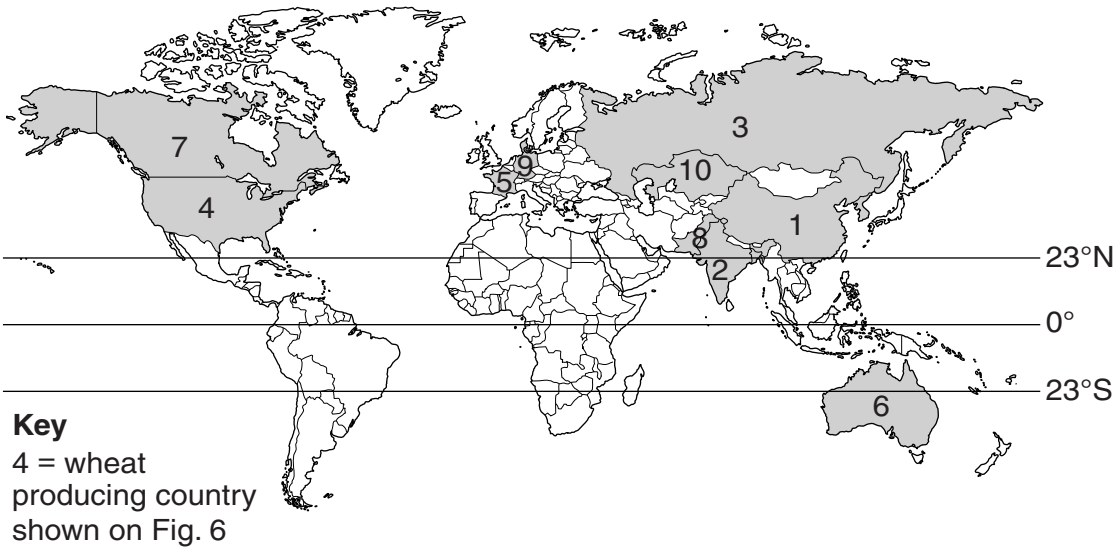

Fig. 7

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(a) **(i)** In 2011 India produced 87 million tonnes of wheat. Use this information to complete Fig. 6. [1]

(ii) Using Fig. 6, identify **two** countries where wheat production decreased between 2009 and 2011.

1…… 2…….. [2]

(b) Fig. 6 was designed to show the wheat production of the world's ten leading wheat producing countries. Give **one** advantage and **one** disadvantage of using Fig. 6 to do this.

Advantage

.....

.....

Disadvantage

.....

.....[2]

(c) **(i)** Using Figs 6 and 7, identify **two** continents which do **not** have one of the ten leading wheat producing countries.

1…… 2…….. [1]

(ii) Using Fig. 7, which **two** of the following statements about the leading wheat producing countries is correct? Tick **two** boxes in the table.

Statement	Tick (✓)
most are in the tropics	
most are near the poles	
most are in temperate latitudes	
most are in the northern hemisphere	
most are in the southern hemisphere	
most are close to the Equator	

[2]

[Total: 8 marks]

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6 Fig. 8 shows an area where it is planned to build a new thermal power station. Four possible sites for the power station, **A**, **B**, **C** and **D**, are shown.

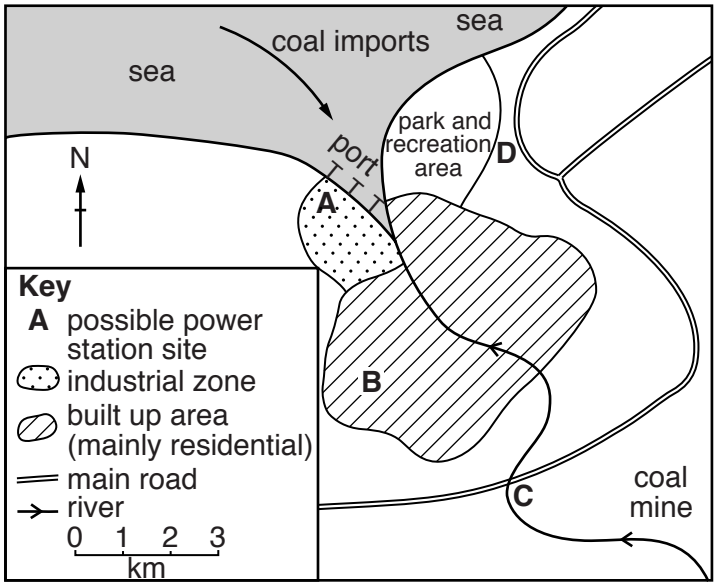

Fig. 8

(a) **(i)** Measure the distance along the main road from where it crosses the river to the road junction in the north east of the map.

..... km [1]

(ii) What is the general direction of flow of the river? Circle **one** correct answer below.

to the north east to the north west to the south east to the south west [1]

(b) For each of the following factors, choose a suitable site for the power station. Tick **one** box for each factor and give a reason for your choice.

(i) Transport

Site	**A**	**B**	**C**	**D**
Tick (✓)				

Reason .....

.....[1]

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(ii) Raw materials

Site	**A**	**B**	**C**	**D**
Tick (✓)				

Reason .....

.....[1]

(iii) Supply of cooling water

Site	**A**	**B**	**C**	**D**
Tick (✓)				

Reason .....

.....[1]

(iv) Room for expansion

Site	**A**	**B**	**C**	**D**
Tick (✓)				

Reason .....

.....[1]

(v) Disposal of waste ash

Site	**A**	**B**	**C**	**D**
Tick (✓)				

Reason .....

.....[1]

(vi) Least visual impact

Site	**A**	**B**	**C**	**D**
Tick (✓)				

Reason .....

.....[1]

[Total: 8 marks]

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