

New
Specification

Centre Number

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Candidate Number

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General Certificate of Secondary Education
2018

Geography

Unit 1

Understanding Our
Natural World

ML

[GGY11]

TUESDAY 22 MAY, AFTERNOON

TIME

1 hour 30 minutes, plus your additional time allowance.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

You must answer the questions in the spaces provided.

Do not write outside the boxed area on each page or on blank pages.

Complete in black ink only. **Do not write with a gel pen.**

Answer **all four** questions.

You are provided with an O.S. map for use with **Questions 1 and 2.**

Do **not** write your answers on this map.

INFORMATION FOR CANDIDATES

The total mark for this paper is 100.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

Quality of written communication will be assessed in questions **1(e)**, **2(d)(ii)** and **3(e)**.

Theme A: River Environments

- 1 (a) Study the Ordnance Survey extract of part of the coast of Cornwall, England. Complete **Table 1** by naming a river feature found at each grid reference given.

Table 1

Grid Reference	River Feature
GR 2092	
GR 0888	

[2]

- (b) A drainage basin has inputs, stores, transfers and outputs. Complete **Table 2** by drawing arrows to show which components of a drainage basin are stores and which are transfers. One has been completed for you.

Table 2

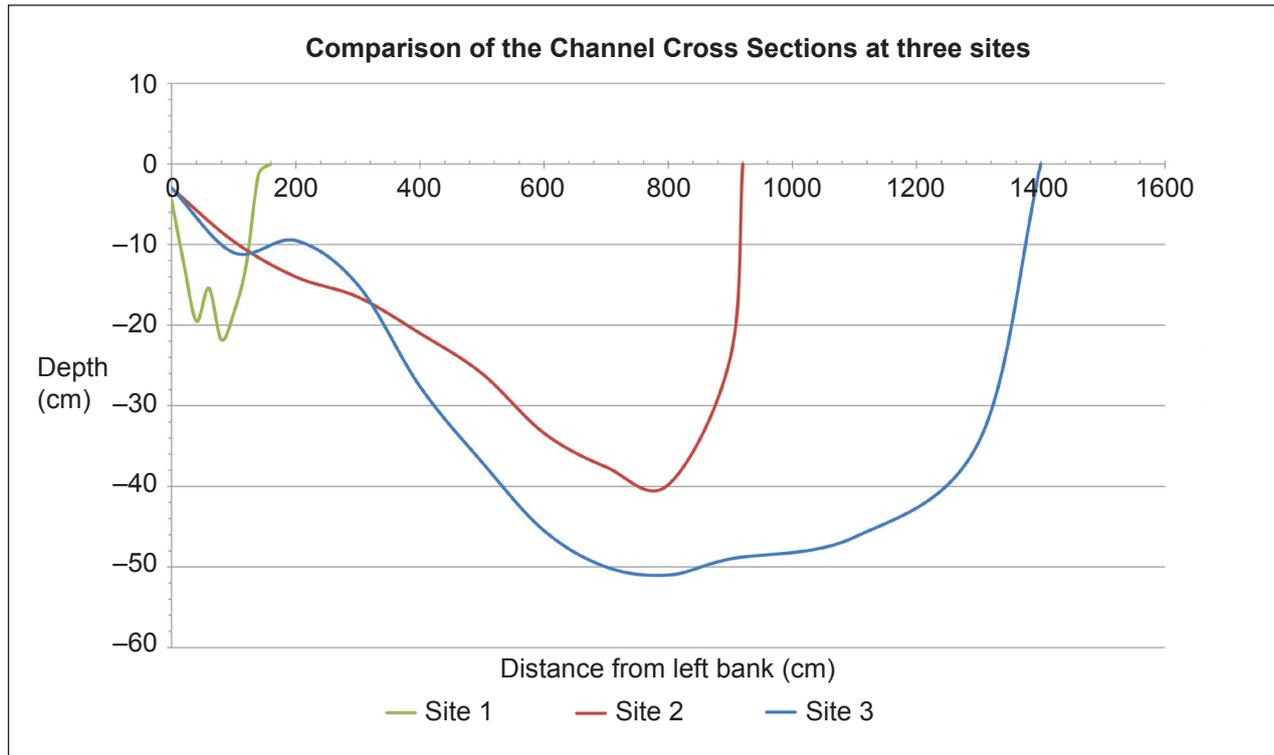
Stores	Drainage Basin Component	Transfers
	Surface runoff	
	Infiltration	
	Interception by vegetation	
	Groundwater flow	→
	Percolation	

[4]



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(c) Study Fig. 1. This shows data collected by geography students on a field trip at three different sites on a river. Answer the question that follows.



Site Number	Location	Discharge (cumecs)
1	Close to source	0.06
2	Middle course	1.10
3	Near the mouth	3.95

Source: Chief Examiner

Fig. 1

Theme B: Coastal Environments

2 (a) Study the Ordnance Survey extract of part of the coast of Cornwall, England. Answer the questions that follow.

(i) What is the height of the land shown by the spot height at the top of Rusey Cliff, GR 128935?

_____ m [1]

(ii) What is the straight line distance from the campsite near Ringford Farm GR 126926 to the bridge on the River Ottery at Trengune GR 189933?

_____ km [2]

(iii) What is the direction of Pencannow Point GR 1397 from Boscastle GR 0990?

_____ [1]

(iv) Coasts are shaped by waves. State **two** facts about destructive waves.

1. _____

2. _____ [2]

- (b) Study **Fig. 2**. This shows Durdle Door, an arch located in Cornwall. Answer the questions that follow.



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Fig. 2

- (i) Complete **Table 3** below by placing the statements in the correct order to show how the arch in **Fig. 2** was formed. One has been completed for you.

Table 3

Statement	Order
Cracks in the rock are widened by wave action to form a cave	
A line of weakness in a cliff is widened by erosion	1
Eventually the cave will be eroded all the way through the cliff to form an arch	
Over time the back wall is further eroded	

[3]

- (ii) Name the feature which will be formed when the roof of the arch collapses.

_____ [1]

[Turn over

(c) Fig. 3 is a photograph of a wave cut platform.



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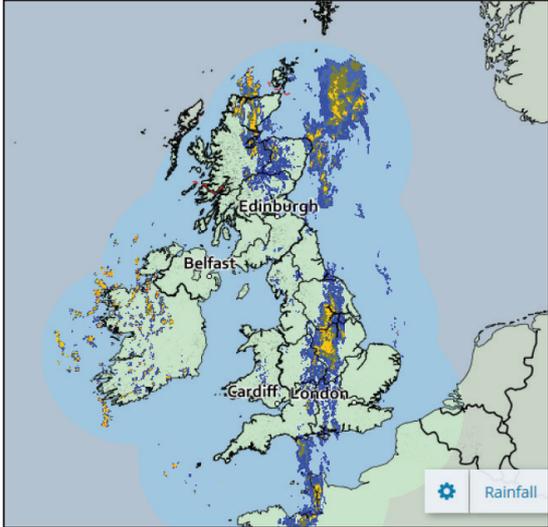
Fig. 3

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[Turn over

Theme C: Our Changing Weather and Climate

- 3 (a) (i) Different sources are used when making a weather forecast. Name the sources of data shown in **Fig. 4** below. Write your answers in the boxes provided.

	<p>A:</p>
	
<p>B:</p>	<p>C:</p>

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Fig. 4

[3]

(ii) What is the difference between weather and climate?

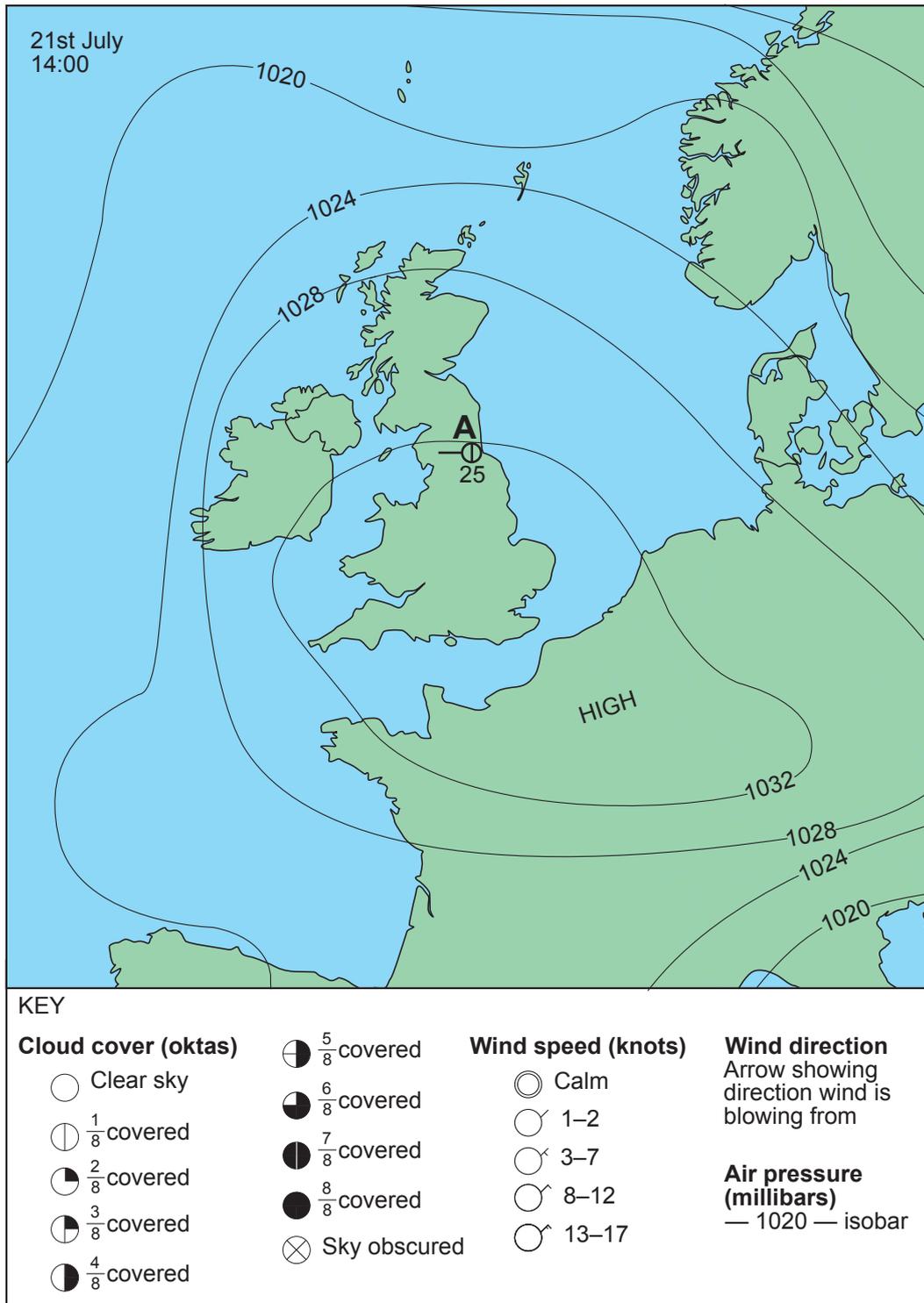
[3]

(b) Describe and explain the temperature and moisture characteristics of a Polar Maritime air mass.

[4]

[Turn over

(c) Study Fig. 5. This shows an anticyclone over the British Isles on a day in July. Answer the questions that follow.



Source: Principal Examiner

Fig. 5

- (i) Complete **Table 4** to show what the weather is like at weather station **A** (Newcastle upon Tyne) on **Fig. 5**. One has been completed for you.

Table 4

Weather Element	Weather conditions
Temperature	25 °C
Wind Speed	Knots
Wind Direction	

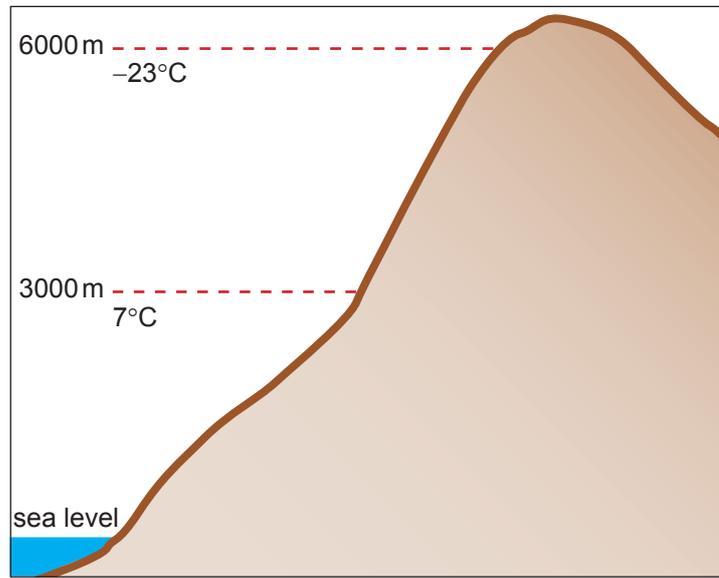
[2]

- (ii) State fully **one** reason why the weather system in **Fig. 5** brings high temperatures.

[3]

[Turn over

(d) Study **Fig. 6**. This shows how altitude can affect temperature. Answer the question that follows.



Source: Principal Examiner

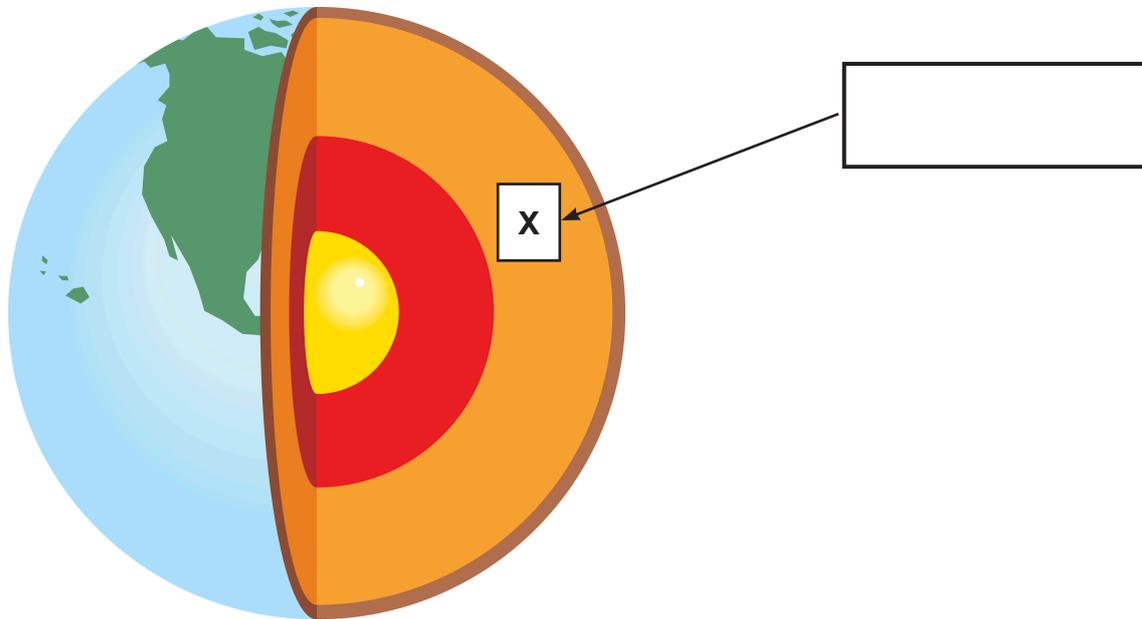
Fig. 6

Using **Fig. 6** describe fully **how** and explain **why** altitude affects temperature.

[4]

Theme D: The Restless Earth

- 4 (a) Study Fig. 7. This shows the structure of the Earth. Answer the questions that follow.



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Fig. 7

- (i) Name the section of the Earth at X on Fig. 7. [1]

- (ii) The following statements are about the structure of the Earth. Underline the correct word in each statement. One has been done for you.

The Earth's surface is divided into tectonic plates / convection currents.

The crust is the **thickest** / thinnest layer of the Earth.

Convection currents / plate margins occur underground.

The **outer** / inner core is solid.

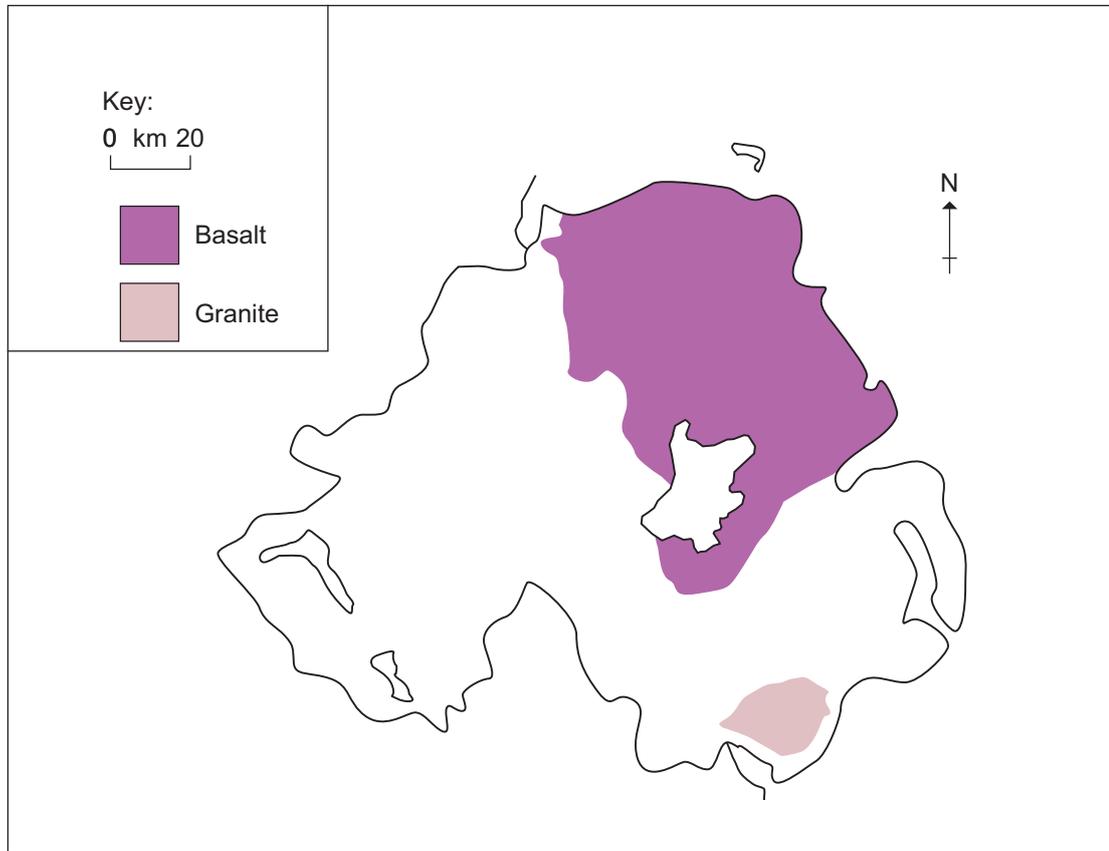
Fault lines are areas of **strength** / weakness in the Earth's crust.

[4]



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(b) Study **Fig. 8**. This shows the location of igneous rocks in Northern Ireland. Answer the questions that follow.



Source: Principal Examiner

Fig. 8

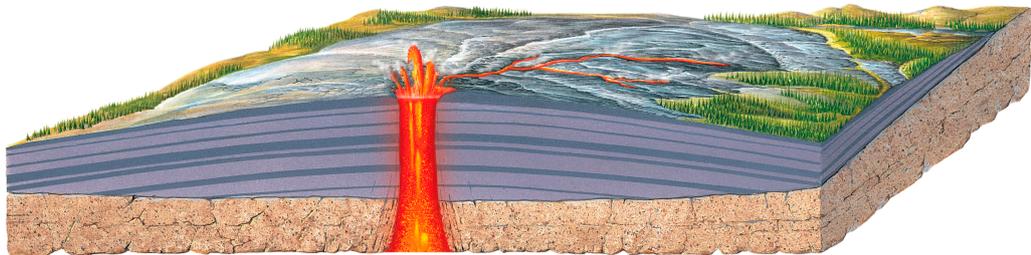
(i) Describe the distribution of granite in Fig. 8.

[2]

(ii) Explain how granite forms.

[3]

(c) Study **Fig. 9**. This shows a diagram of a shield volcano. Answer the questions that follow.



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Fig. 9

(i) Write down **two** characteristics of a shield volcano.

1. _____

2. _____ [2]

(ii) Name one other type of volcano _____ [1]

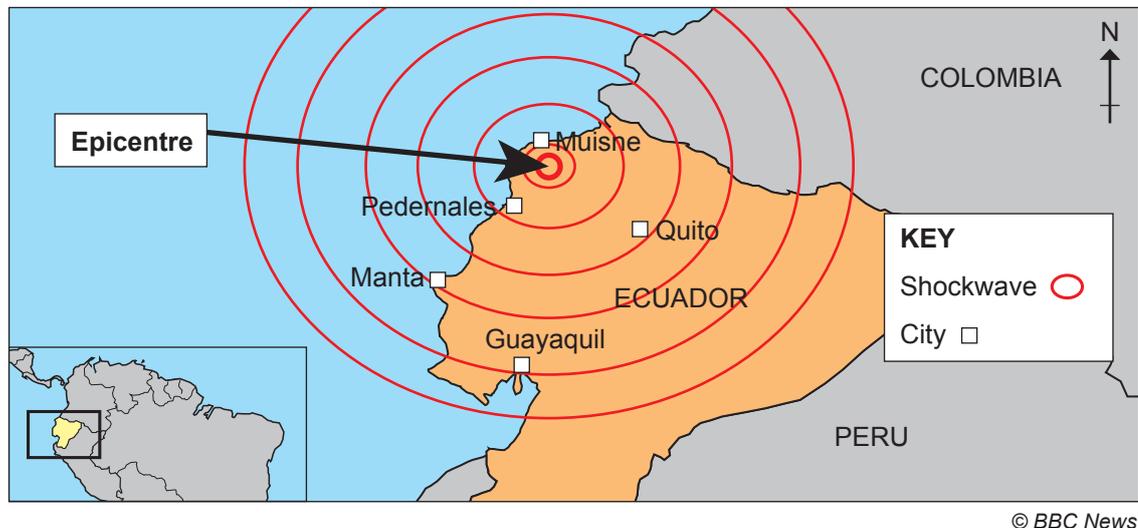


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(d) Study **Fig. 10**. This shows information about an earthquake in Ecuador in April 2016. Answer the questions that follow.



- Ecuador was hit by its most powerful earthquake in decades.
- The 7.8 earthquake struck on Saturday evening.
- During the rescue operation, 10,000 troops and 3,500 police were deployed.
- Coastal areas in the north-west were closest to the epicentre.

Fig. 10

(i) What is the name of the city furthest away from the epicentre?

_____ [1]

(ii) What does the term **epicentre** mean?

_____ [2]

(iii) Ecuador lies on a destructive plate boundary.

Explain why earthquakes often occur at a destructive boundary.

_____ [3]

[Turn over



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Question Number	Marks
1	
2	
3	
4	

Total Marks	
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Examiner Number

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WATER FEATURES

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TOURIST INFORMATION

LAND FEATURES

ABBREVIATIONS

