Rewarding Learning

| Centre Number | |
|---|---|
| 71 | |

| Candidate Number |
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General Certificate of Secondary Education
2013

# Geography

## Unit 1:
## Understanding Our Natural World

## Higher Tier

**[GGG12]**

GGG12

**TUESDAY 4 JUNE, AFTERNOON**

**TIME**

1 hour 30 minutes.

**INSTRUCTIONS TO CANDIDATES**

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.
Write your answers in the spaces provided in this question paper.
Answer **all three** questions.

**INFORMATION FOR CANDIDATES**

The total mark for this paper is 108.
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 Question **3(d)**.
Spelling, punctuation and the accurate use of grammar will be assessed in questions **1(i)** and **2(c)(iii)**.

| For Examiner's use only | |
|---|---|
| Question Number | Marks |
| 1 | |
| 2 | |
| 3 | |
| Total Marks | |

## Theme A: The Dynamic Landscape

| Examiner Only | |
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| Marks | Remark |
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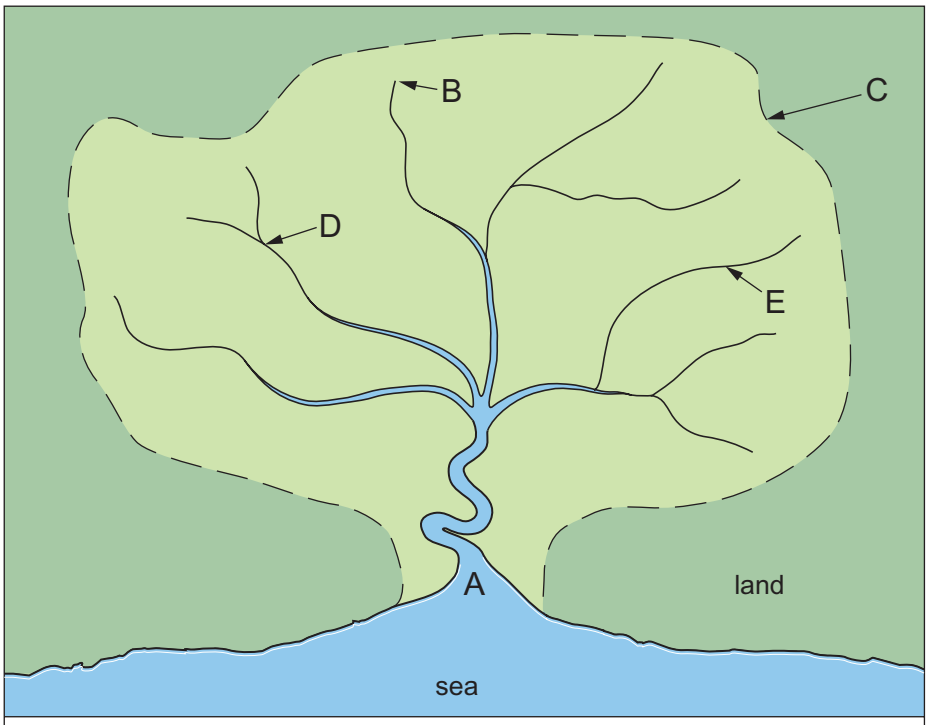
**1** **(a)** Study **Fig. 1** which shows a drainage basin. Answer the questions which follow.




Key

A = _____ = Where the river enters the sea.

B = _____ = The start of a river.

C = _____ = High ground which separates one drainage basin from another.

D = _____ = Where two rivers meet.

E = _____ = A small river which joins the main river.

*Source: Principal Examiner*

**Fig. 1**

**(i)** Complete the key for **Fig. 1** by labelling features A–E. [5]

**(ii)** Name **two** stores of water within the drainage basin system.

1. _____

2. _____ [2]

**(iii)** State the meaning of the term **infiltration**.

_____

_____

_____

_____ [2]

| Examiner Only | |
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| Marks | Remark |
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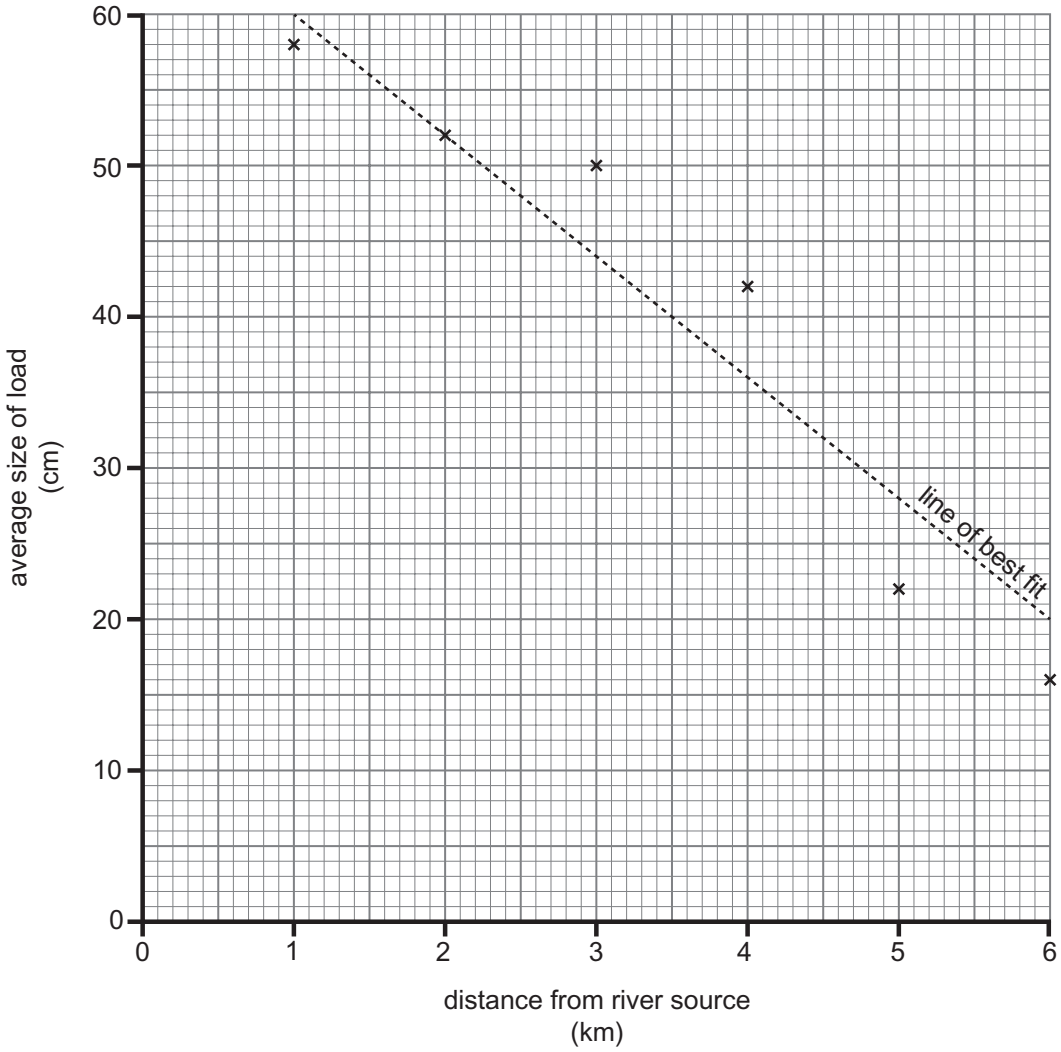
**(b)** Study **Fig. 2** which shows how load size varies along the Colin River in Belfast. Answer the questions which follow.




*Source: Principal Examiner*

**Fig. 2**

**(i)** Describe how load size varies along the Colin River.

[4]

**(ii)** Underline the **two** types of erosion in the list below which could account for the variation seen in **Fig. 2**.

**Abrasion** **Hydraulic Pressure** **Weathering** **Attrition** [2]

**(c)** **(i)** State **two** reasons why a river might deposit material.

1. _____

2. _____ [2]

**(ii)** Name **two** river features which are formed by the process of deposition.

1. _____

2. _____ [2]

**(d)** With reference to a river in the British Isles, explain the physical and human causes of a flood on your named river.

Name of river _____

Causes of the flood

_____

_____

_____

_____

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_____ [7]

| Examiner Only | |
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| Examiner Only | |
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| Marks | Remark |
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**(e)** Coasts are shaped by waves. State **two** facts about constructive waves.

_____

_____

_____

_____ [2]

**(f)** Study **Fig. 3** which shows a labelled photograph of a coastal spit in Alaska called Homer Spit. Answer the questions which follow.


*Source: Alaska ShoreZone Program NOAA/NMFS/AKFSC; Courtesy of Mandy Lindeberg, NOAA/NMFS/AKFSC*

**Fig. 3**

Identify the **two** land uses (**X** and **Y**) shown in **Fig 3**. Choose your answers from the list below.

**Residential** **Industry** **Transport** **Tourism**

**X** _____

**Y** _____ [2]

**(g)** Explain the formation of a spit.

[6]

**(h)** Explain the formation of a wave-cut platform.

[6]

| Examiner Only | |
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| Marks | Remark |
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**(i)** With reference to a case study from the British Isles, evaluate the sustainability of a coastal management strategy you have studied.

[8]

Spelling, punctuation and accurate use of grammar [4]

| Examiner Only | |
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| Marks | Remark |
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**(Questions continue overleaf)**

Examiner Only

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**2 (a)** Study **Fig. 4** which shows a simple weather forecast about an anticyclone that is over Northern Ireland in July. Answer the questions which follow.

A. The temperature will be a very warm 28 °C.
B. The wind speed will be calm.
C. Warm air will come from a south-easterly direction.
D. There will be no rain.

**Fig. 4**

**(i)** Using **Fig. 4** complete **Table 1** by writing in the names of the instruments that could be used to collect information on each of these elements of the weather forecast.

**Table 1**

| Weather element | Instrument |
|---|---|
| A | |
| B | |
| C | |
| D | |

[4]

**(ii)** State the name of the air mass that is most likely to be responsible for this weather.

_____ [1]

**(iii)** Explain why there will be no rain.

_____

_____

_____

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_____ [3]

| Examiner Only | |
|---|---|
| Marks | Remark |

**(b)** Weather forecasts are created by the Met Office in the U.K. They often rely on satellite images to help create them. Answer the questions which follow.

*Courtesy: NASA*

**(i)** Explain how satellites help to create a weather forecast.

_____

_____

_____

_____

_____

_____ [3]

**(ii)** State the type of satellite which is fixed in the same location in space.

_____ [1]

| Examiner Only | |
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**(c)** Study **Fig. 5** which shows the number of barrels of oil consumed per day in a number of countries. Answer the questions which follow.

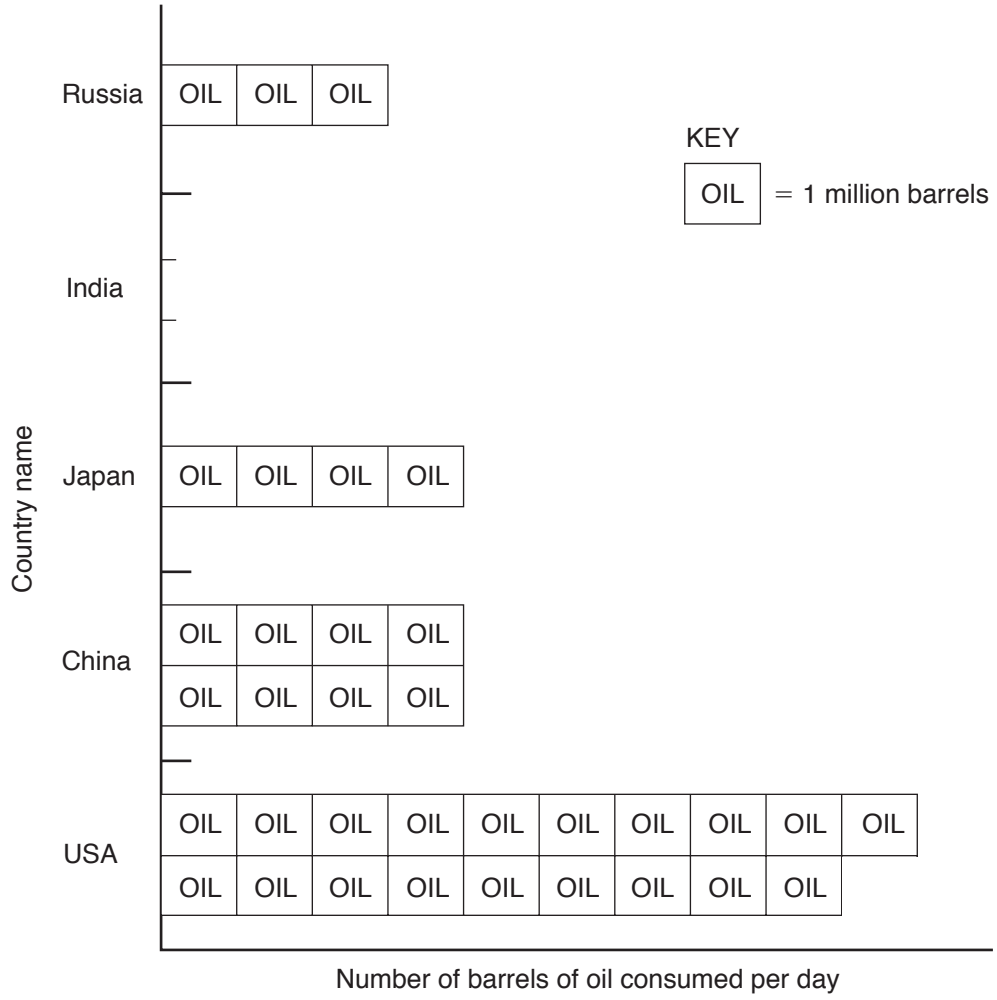


**Fig. 5**

**(i)** Complete **Fig. 5** by inserting the correct symbol for the number of barrels of oil consumed per day in India.

**India = 3 million barrels** [1]

**(ii)** State the number of barrels of oil consumed per day in the USA.

_____ [1]

**(iii)** With reference to a named country that you have studied, describe the likely effects of climate change on the society and economy of that country.

Examiner Only

| Marks | Remark |
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_____ [6]

Spelling, punctuation and accurate use of grammar [4]

**(d)** Study **Fig. 6** which shows the cities where international agreements on climate change have been discussed. Answer the questions which follow.


*© Don Hammond/Design Pics/Corbis*

**Fig. 6**

**(i)** Using **Fig. 6** state the name of the city where the 2011 international agreement on climate change was discussed.

_____ [1]

**(ii)** Outline **two** challenges associated with securing international co-operation to deal with climate change.

_____

_____

_____

_____

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_____

_____ [4]

Examiner Only

| Marks | Remark |
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Examiner Only

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**3** **(a)** Study **Fig. 7** which shows some rock types. Answer the questions which follow.

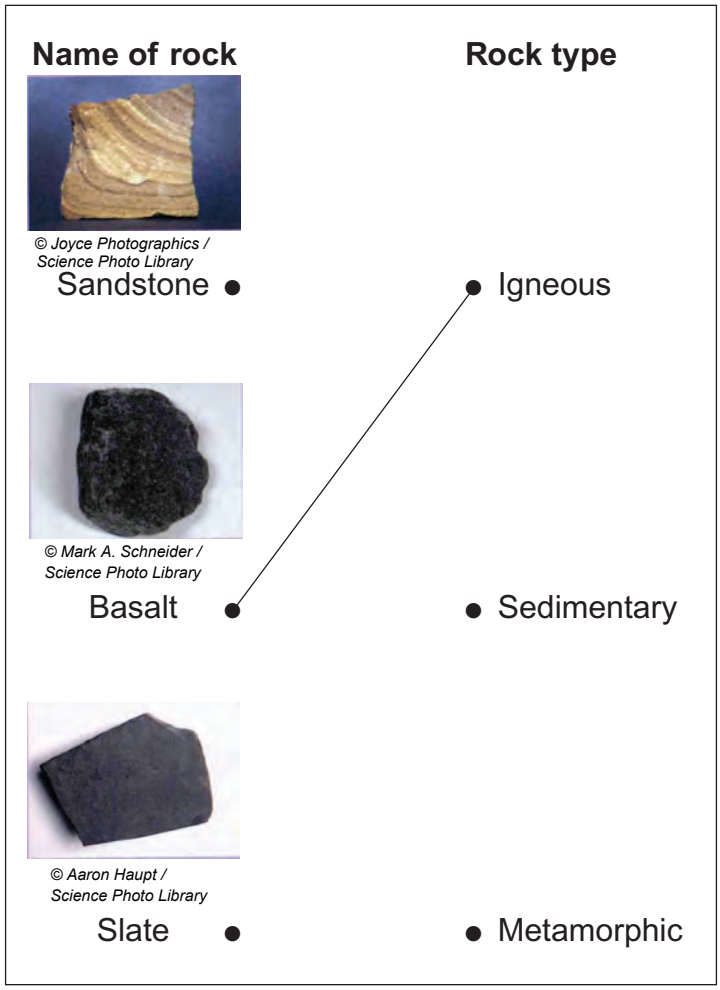



**Fig. 7**

**(i)** Complete **Fig. 7** by matching the name of each rock to its rock type. One has been completed for you. [2]

**(ii)** Explain how basalt is formed.

_____

_____

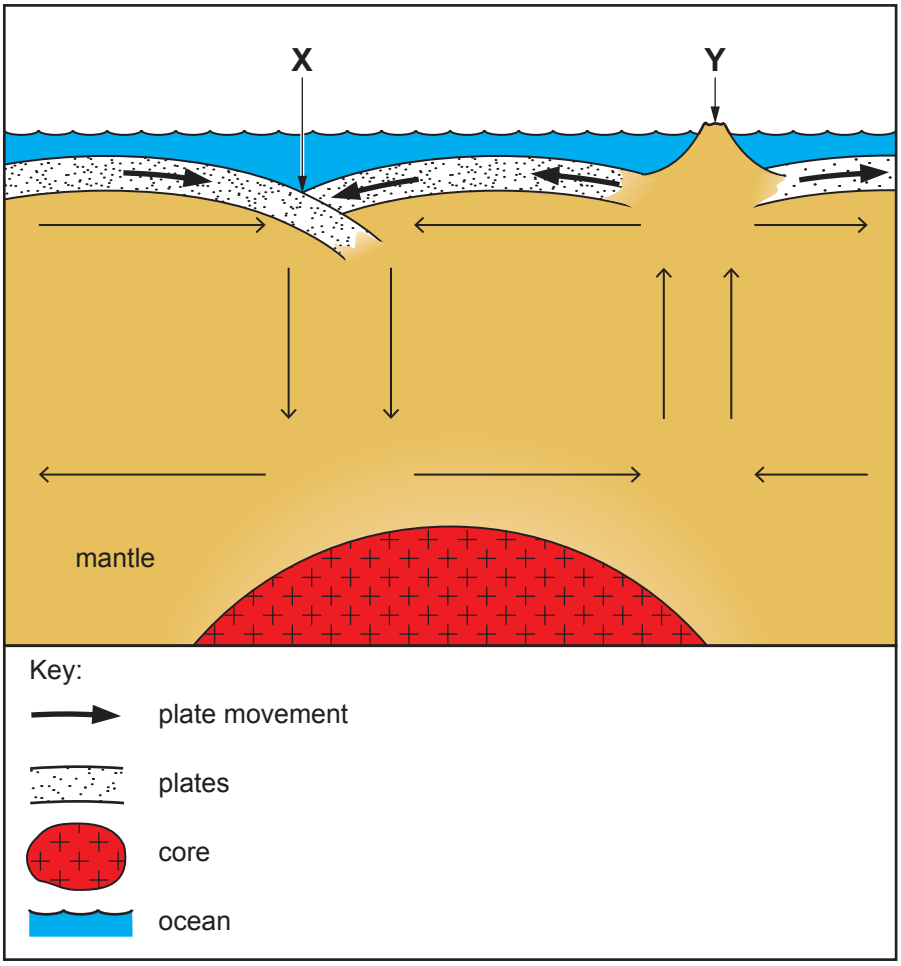
_____

_____

_____

_____ [3]

**(b)** Study **Fig. 8** which shows part of the earth's structure. Answer the questions which follow.




*Source: Principal Examiner*

**Fig. 8**

**(i)** Name the features **X** and **Y**.

**X** _____

**Y** _____ [2]

| Examiner Only | |
|---|---|
| Marks | Remark |
| | |

**(ii)** Use **Fig. 8** to help you to explain why plates move.

Examiner Only

| Marks | Remark |
|---|---|
| | |

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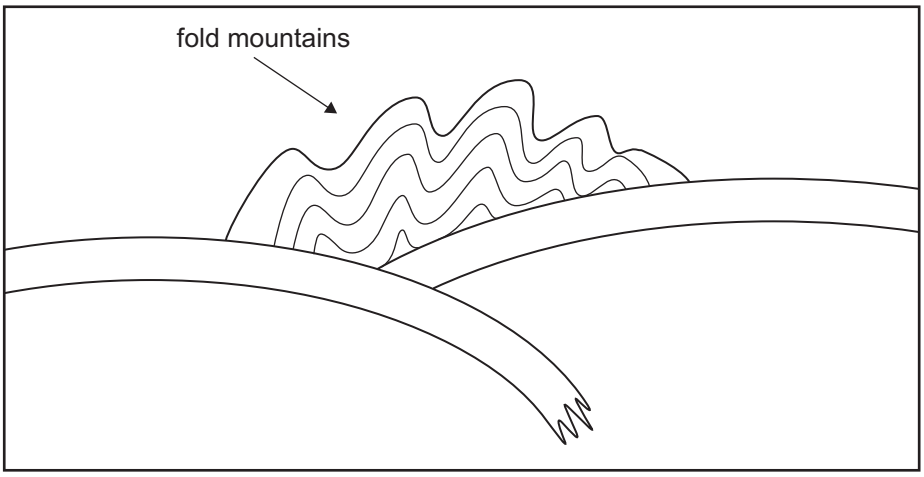
_____ [3]

**(iii)** Complete **Fig. 9** by drawing in arrows to show the direction of plate movement and mark the likely position of an earthquake focus with **X**.




[3]

**Fig. 9**

**(iv)** Name this type of plate boundary.

_____ [1]

| Examiner Only | |
|---|---|
| Marks | Remark |

**(c)** Study **Fig. 10** which shows a tsunami. Answer the questions which follow.

© *PA*

**Fig. 10**

**(i)** State the meaning of the term **tsunami**.

_____

_____

_____

_____ [2]

**(ii)** Explain why an earthquake occurred in a **LEDC** which you have studied.

Name of LEDC _____

_____

_____

_____

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_____ [3]

**(d)** For an earthquake in a **MEDC** which you have studied, evaluate the success of the precautions put in place before the earthquake happened. Refer to **two** precautions in your answer.

Name of MEDC _____

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_____ [6]

| Examiner Only | |
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## THIS IS THE END OF THE QUESTION PAPER

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