

Section A The challenge of natural hazards

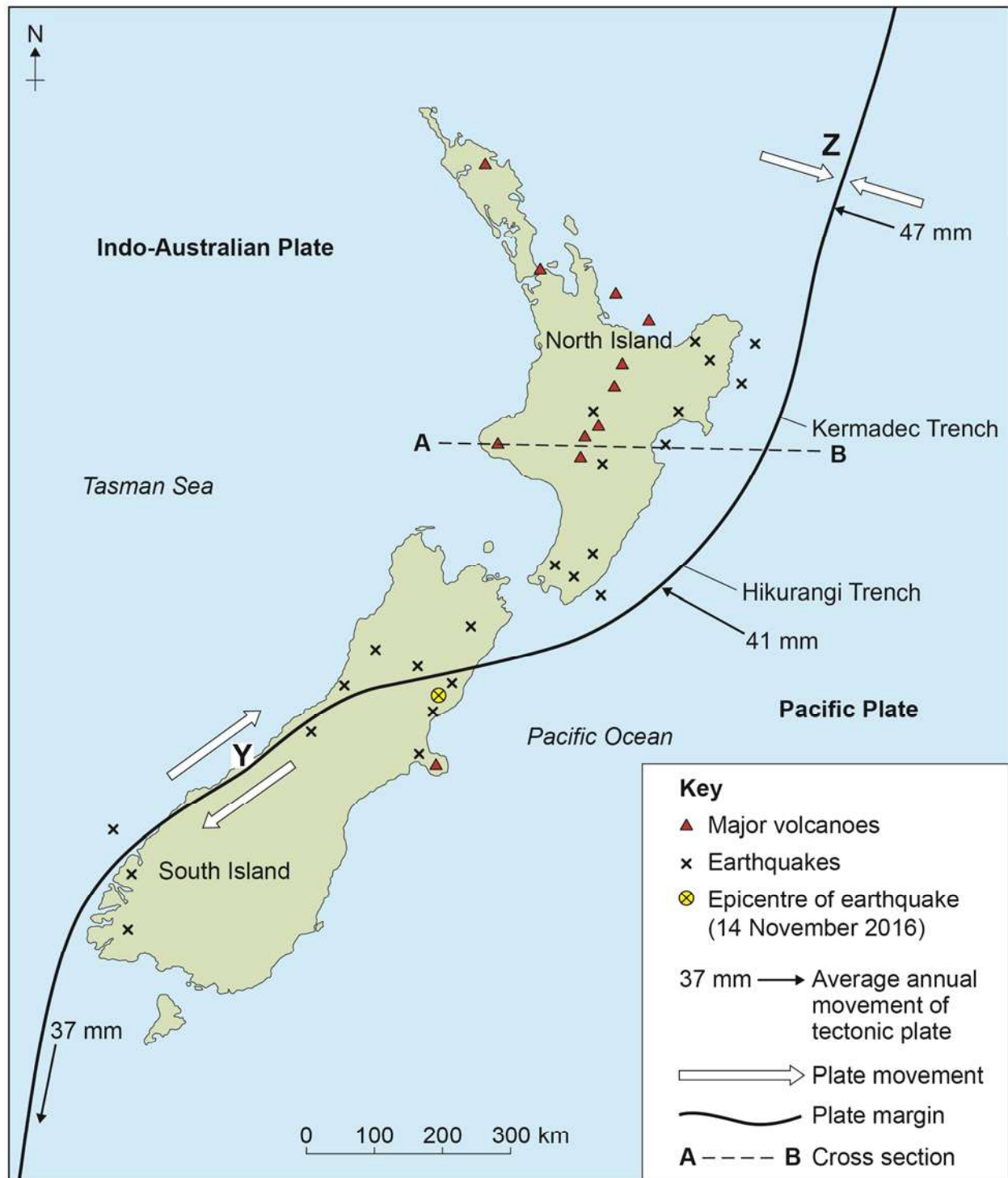
Answer **all** questions.

0 1

The challenge of natural hazards

Study **Figure 1**, a map showing tectonic hazards in New Zealand.

Figure 1



0 1 . 1 Using **Figure 1**, name the type of plate margin at **Y**.

[1 mark]

0 1 . 2 Using **Figure 1**, which **one** of the following statements is true?

Shade **one** circle only.

[1 mark]

A All earthquakes are found along a plate margin.

☐

B Earthquakes and volcanoes are evenly spread across New Zealand.

☐

C Volcanoes and earthquakes only take place on land.

☐

D The majority of volcanoes occur in a line through the central part of North Island.

☐

0 1 . 3 Using **Figure 1**, how much movement will there be along plate margin **Z** in 100 years?

Shade **one** circle only.

[1 mark]

A 47 millimetres

☐

B 47 centimetres

☐

C 4.7 metres

☐

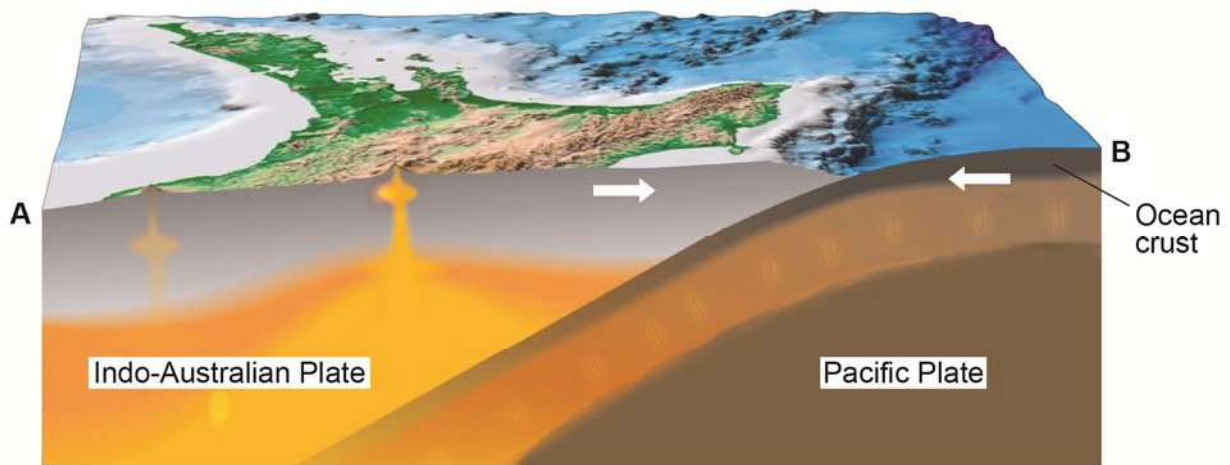
D 47 metres

☐

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Figure 2

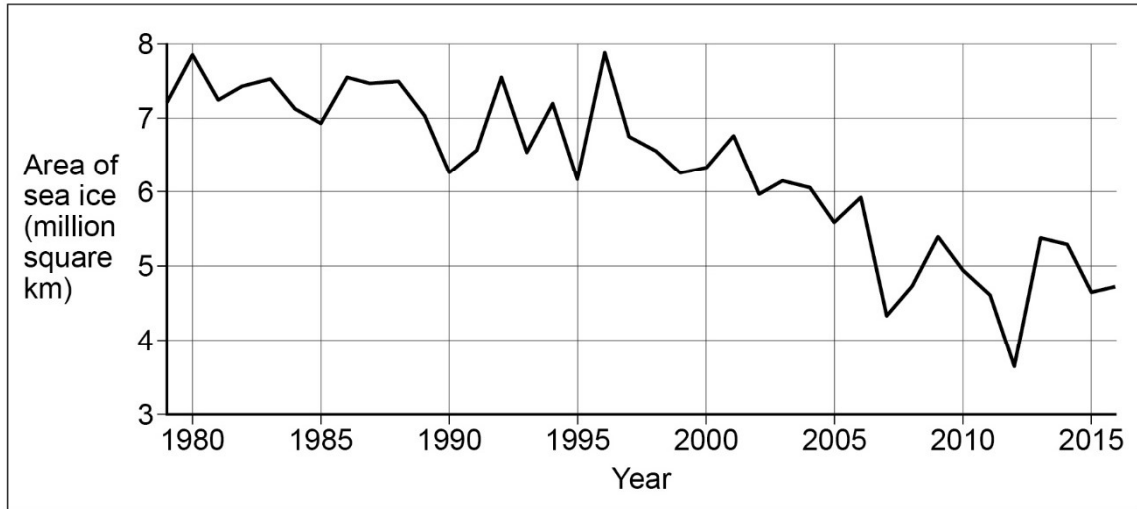


[6 marks]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

Study **Figure 3**, a graph showing the area of Arctic sea ice each September between 1979 and 2016.

Figure 3



0 1 . 5 Using **Figure 3**, describe how the area of Arctic sea ice has changed.

[2 marks]

0 1 . 6 Give **two** ways that human activity may have contributed to the changes shown in **Figure 3**.

[2 marks]

1

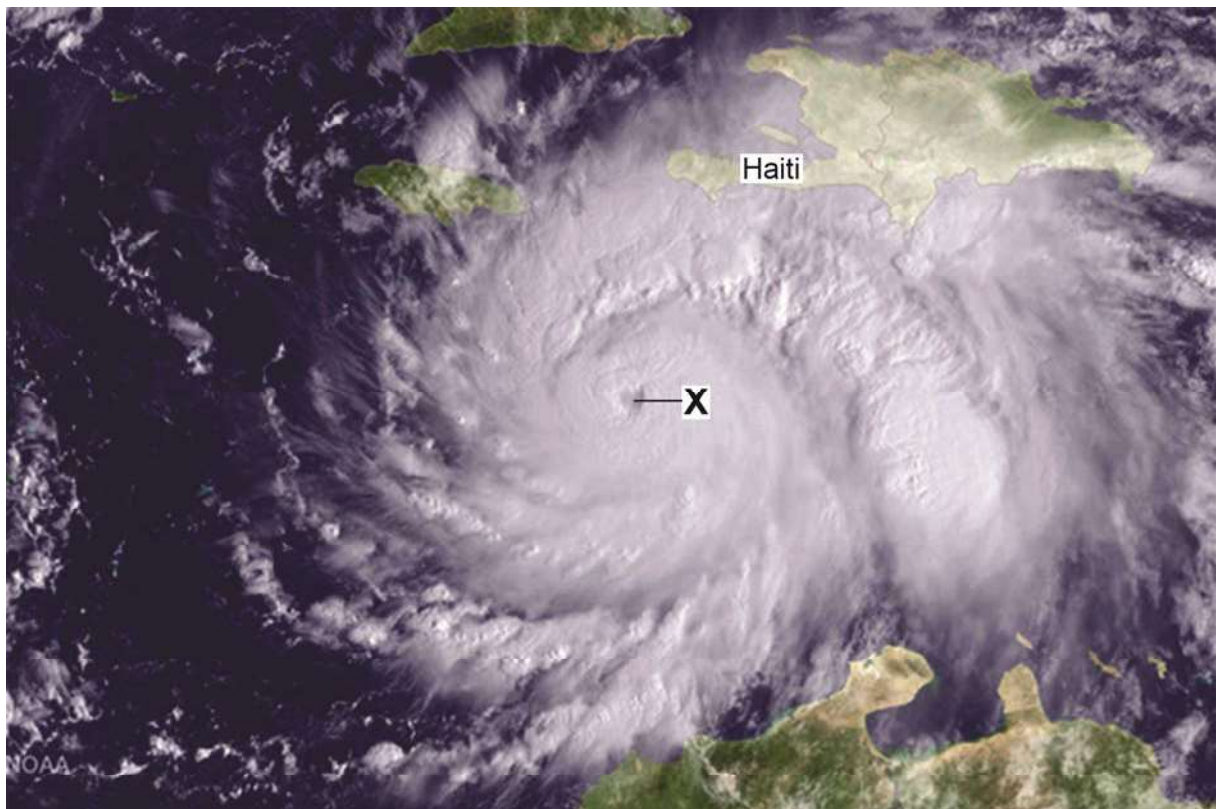
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0 1 . 7 Explain how volcanic activity and orbital changes may cause long-term climate change. [4 marks]

Study **Figure 4**, a satellite image of Hurricane Matthew shortly before it crossed Haiti in October 2016.

Figure 4



0 1 . 8

Using **Figure 4** and your own understanding, complete the following sentences.

[2 marks]

Figure 4 shows that the pattern of winds moving around the hurricane centre was anticlockwise because _____

At X, the eye of the hurricane, the weather conditions were likely to be _____

Question 1 continues on the next page

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Study **Figure 5**, a photograph showing the effects of Hurricane Matthew in south western Haiti.

Figure 5



0 1 . 9 Using **Figure 5**, state **two** primary effects of Hurricane Matthew.

[2 marks]

1

2

Using a named example, evaluate the immediate and long-term responses to tropical storms.

[illegible]

Turn over for Section B

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