UNIVERSITY OF CAMBRIDGE INTERNATIONAL EX
International General Certificate of Secondary Educati

CANDIDATE NAME

CENTRE NUMBER | | | | | |

CAN NUMBER

5834552395

ENVIRONMENTAL MANAGEMENT **0680/12**

Paper 1 **May/June 2013**

1 hour 30 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.
Write in dark blue or black pen.
You may use a soft pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.
DO **NOT** WRITE IN ANY BARCODES.

Electronic calculators may be used.

Answer **all** questions.

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.

For Examiner's Use	
1	
2	
3	
4	
5	
6	
Total	

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Answer **all** the questions.

1 **(a)** Insolation is a measure of the solar radiation reaching a give in a given time.

Explain why insolation is greatest at the equator and least at

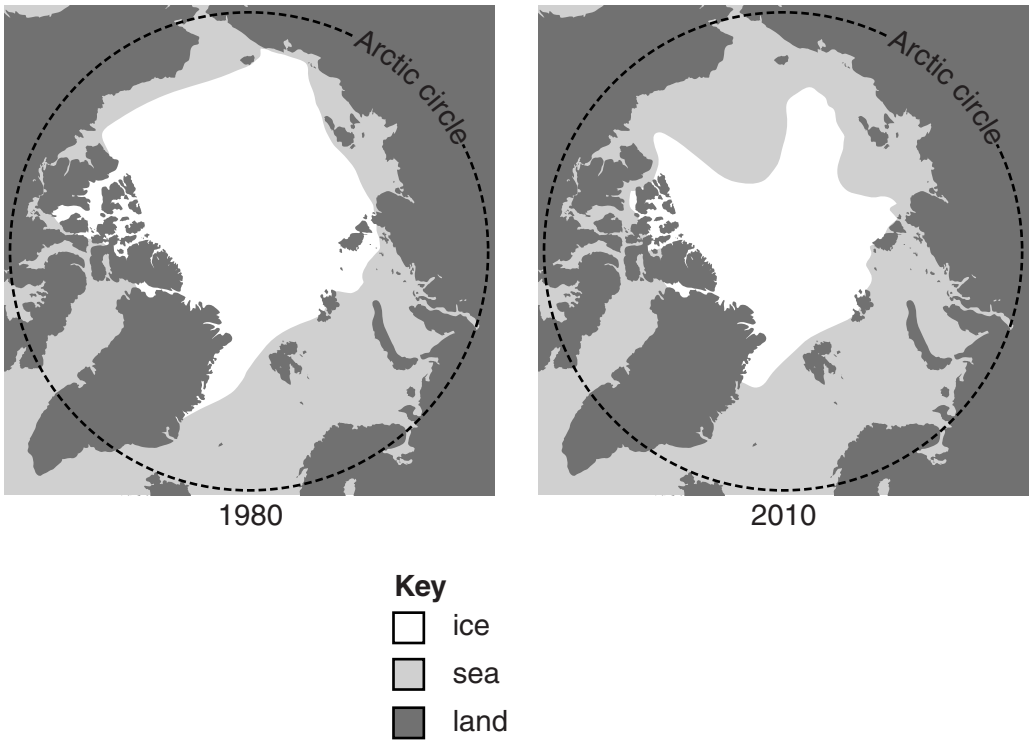
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(b) **(i)** The maps show the permanent polar ice as it was in 1980 and 2010.



Describe the changes over the 30 years.

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.....[2]

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(ii) Many people believe that global warming is the cause of

Explain this view from your knowledge of the greenhous

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(iii) What measures could governments take to prevent further change in the extent of polar ice?

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[Total: 10]

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2 **(a)** People obtain food from the land in different ways. The oldest few people still live like this in the tundra, deserts and tropical

Choose **one** of these three ecosystems and name it here .....

Suggest how hunter gatherers get food in this environment environment have allowed this traditional way of life to remai elsewhere.

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(b) **(i)** The table below shows changes in the land area (in hectares) covered by forest in the state of Victoria in Australia.

year	area / millions of hectares of forest
1869	20.0
1900	17.0
1950	13.0
1972	10.5
2000	8.0

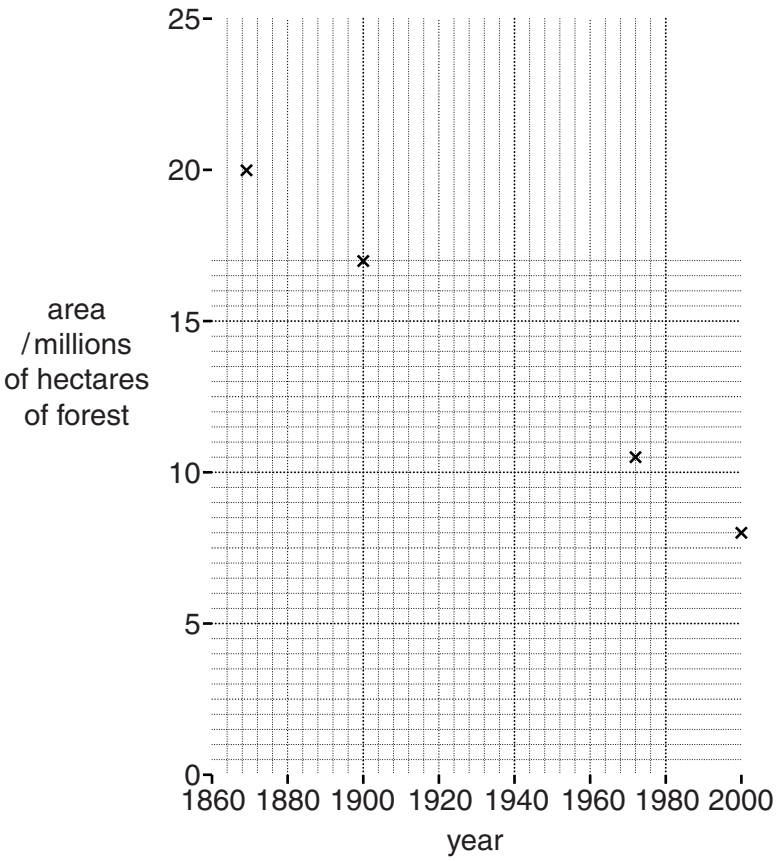
What percentage of the forest cover of 1869 had been lost by 2000?

Show your working.

.....% [2]

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(ii) Complete the graph below using the data in the table an trend.



[2]

(iii) Describe the trend of the graph that you have completed.

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.....[1]

(iv) A government minister in a conservation speech emphasised the importance of conserving forests to sustain the tourism industry in his country.

Explain what he meant. In your answer refer to ecotourism.

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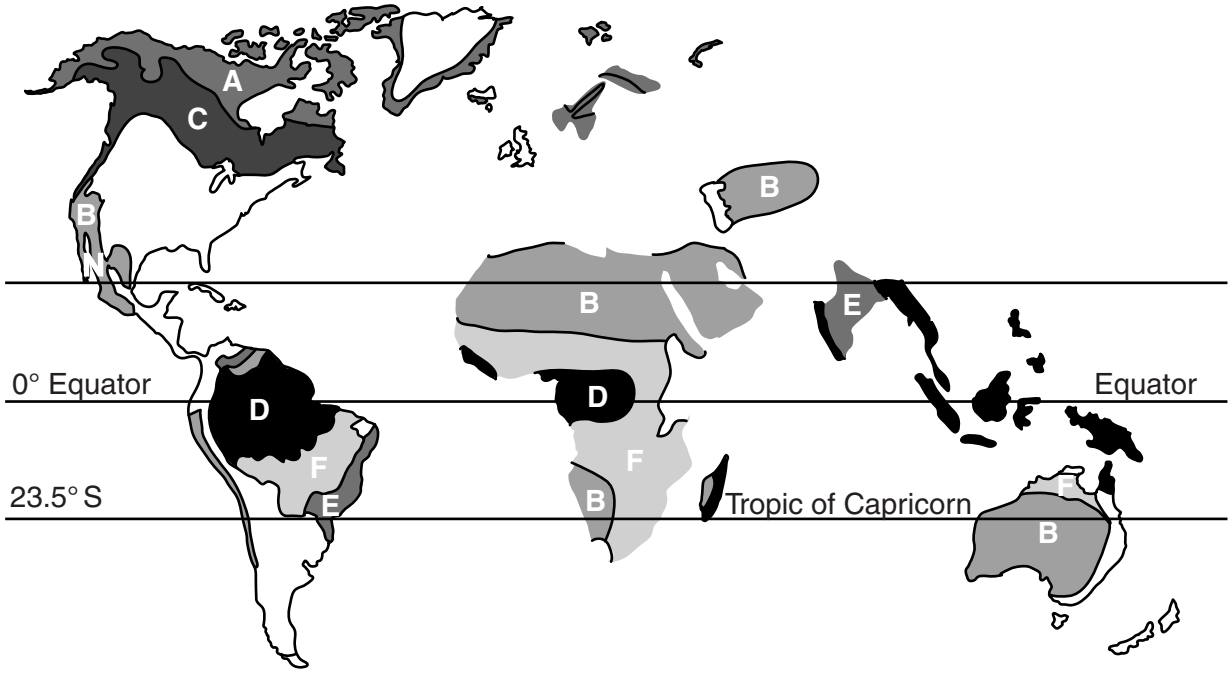
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3 **(a)** The map shows six biomes, marked **A** to **F**.



(i) Three of the biomes are forests.

Which letters on the map show taiga, tropical rainforest and monsoon forest?

taiga ……

tropical rainforest ……

monsoon forest …… [2]

(ii) Choose **two** of the forest biomes and describe the main differences between the trees in these biomes.

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.....[2]

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(b) The 2011 World Environment Day had as its theme, 'Forest
The theme was chosen to highlight the environmental, econo
of the world's forests as they are affected by deforestation.

(i) What did the organisers mean by 'the environmental forests'?

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(ii) How can the problem of deforestation be reduced?

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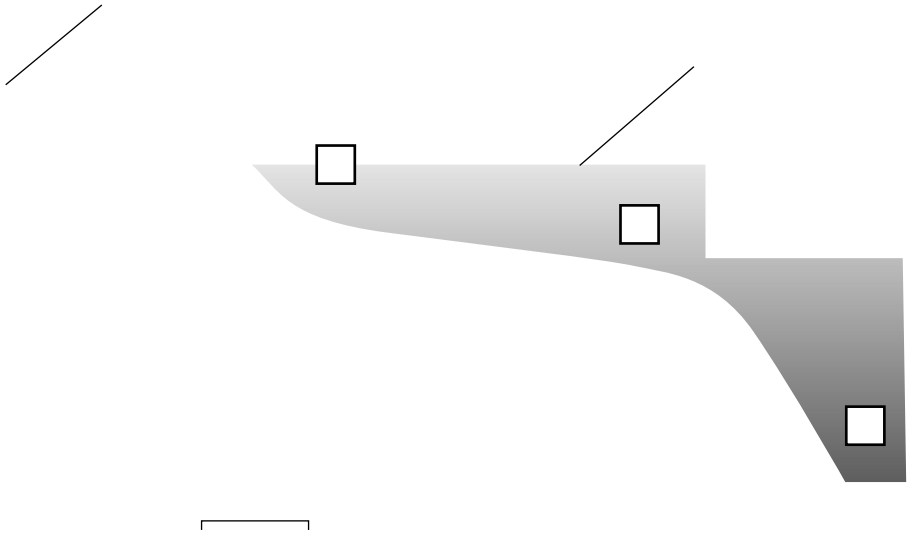
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4 **(a)** The diagram shows a section through the coastal zone and o



(i) Which part of the sea, **P**, **Q** or **R**, is the most productive for:

fish and other food ……

oil ……

tourism. …… [2]

(ii) Choose **one** of the above and explain how you arrived at your answer.

choice ……

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(b) Overfishing is a serious problem in many of the world's ocea

(i) State and explain **two** causes of overfishing.

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(ii) Why is the problem of overfishing difficult to reduce?

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[Total: 10]

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5 **(a)** In China, surface water quality has been classified on a five p

G – Excellent
H – Good
J – Satisfactory
K – Poor
L – Very Poor

In 2011 a report stated that surface water quality in China var

- 60% of rivers were grade **J** or better
- 23.6% of rivers were graded **K** or **L**
- 16.4% were too poor to be graded

(i) What percentage of rivers was less than satisfactory?

Space for working.

.....[1]

26 lakes or reservoirs were also surveyed. Eutrophication was found to affect 42.3% of these lakes and reservoirs.

(ii) Explain what is meant by *eutrophication*.

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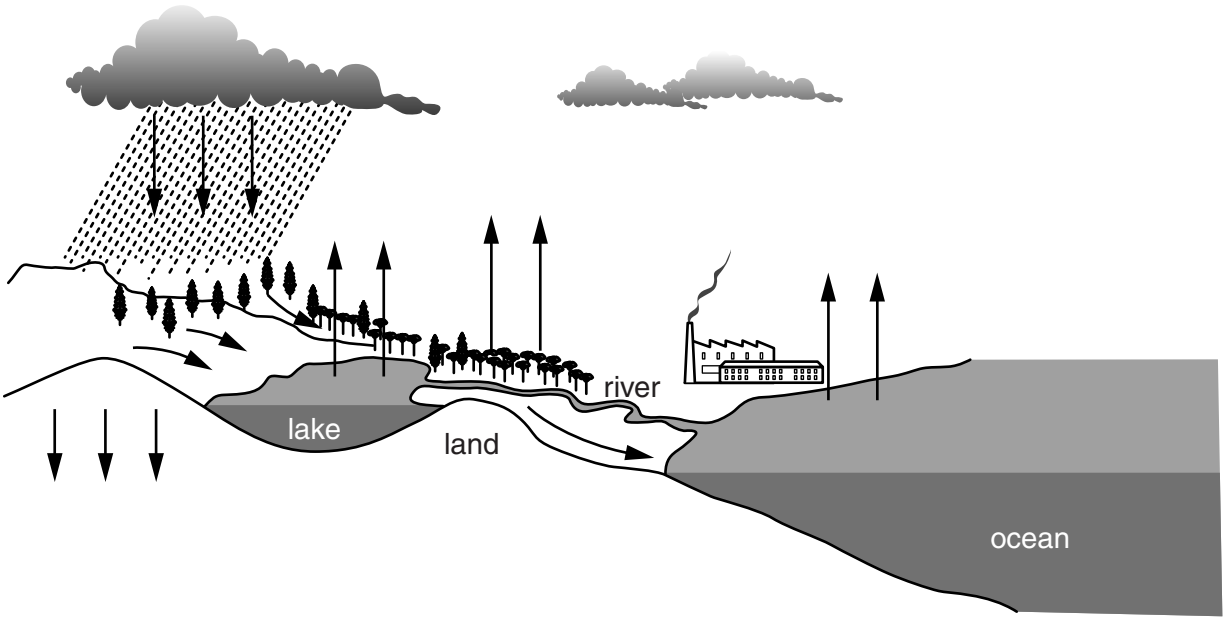
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(b) Humans also affect processes within the water cycle.



(i) Which letters show run-off and infiltration?

run-off ……

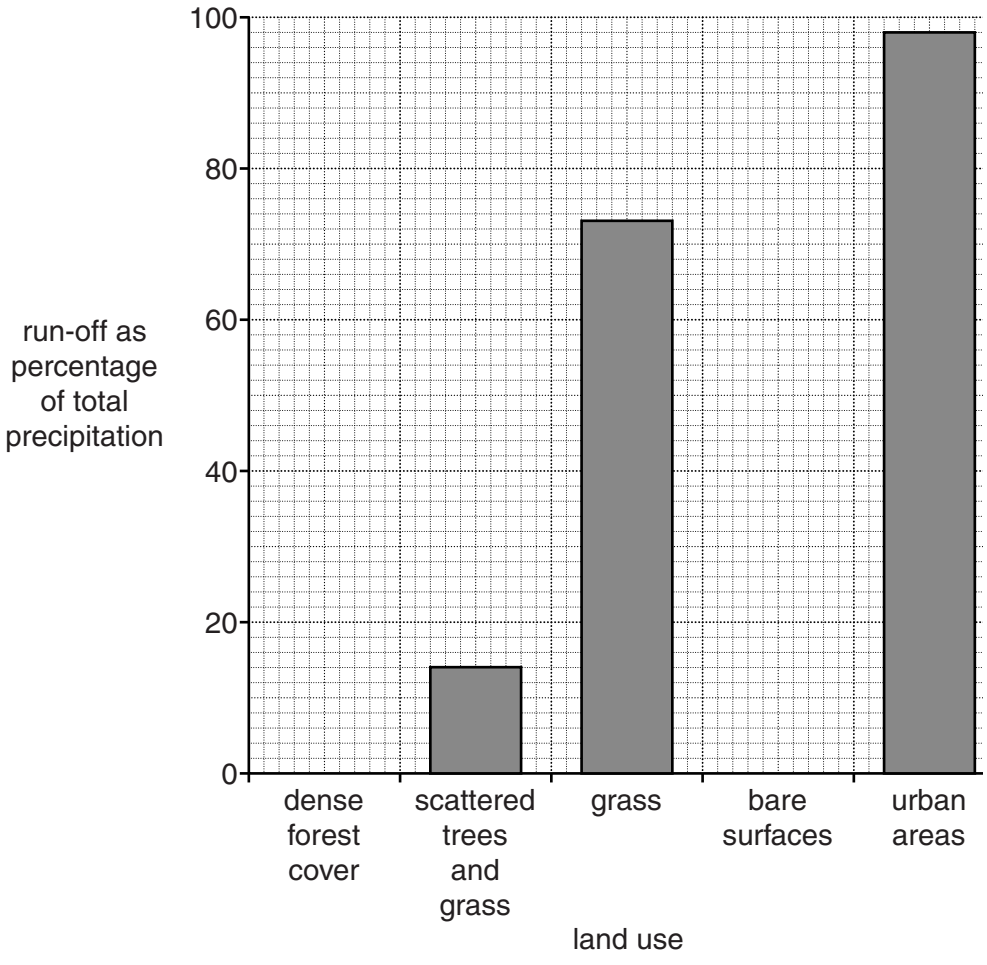
infiltration …… [1]

(ii) On the diagram above mark with a letter **X** a place where interception occurs. [1]

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(iii) The table below shows the run-off as a percentage of surfaces with different land use.

land use	run-off as percentage of total precipitati
dense forest cover	2
scattered trees and grass	14
grass	73
bare surfaces	85
urban areas	98



Use the table to complete the bar chart.

Your answer should give a complete bar chart. [1]

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(iv) Using the information in the table and the bar chart, explain how and why humans affect run-off.

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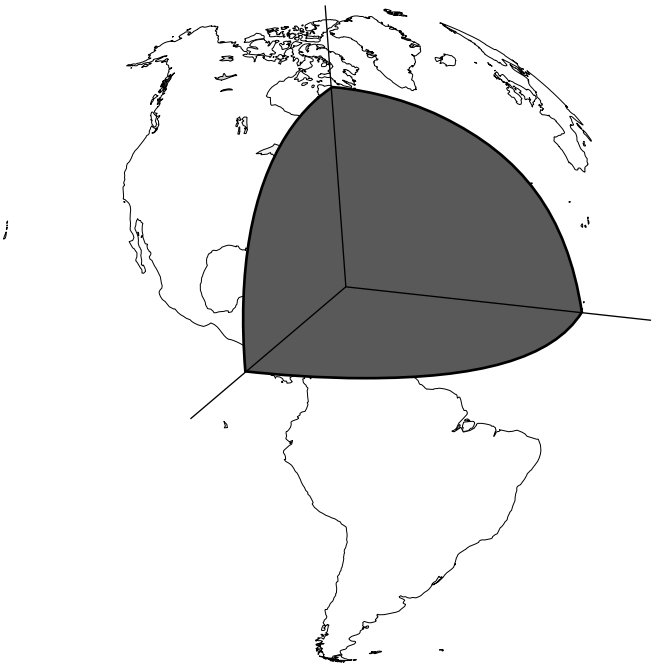
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6 **(a)** The diagram shows a section through the Earth.



(i) Name layers **N** and **O**.

N .....

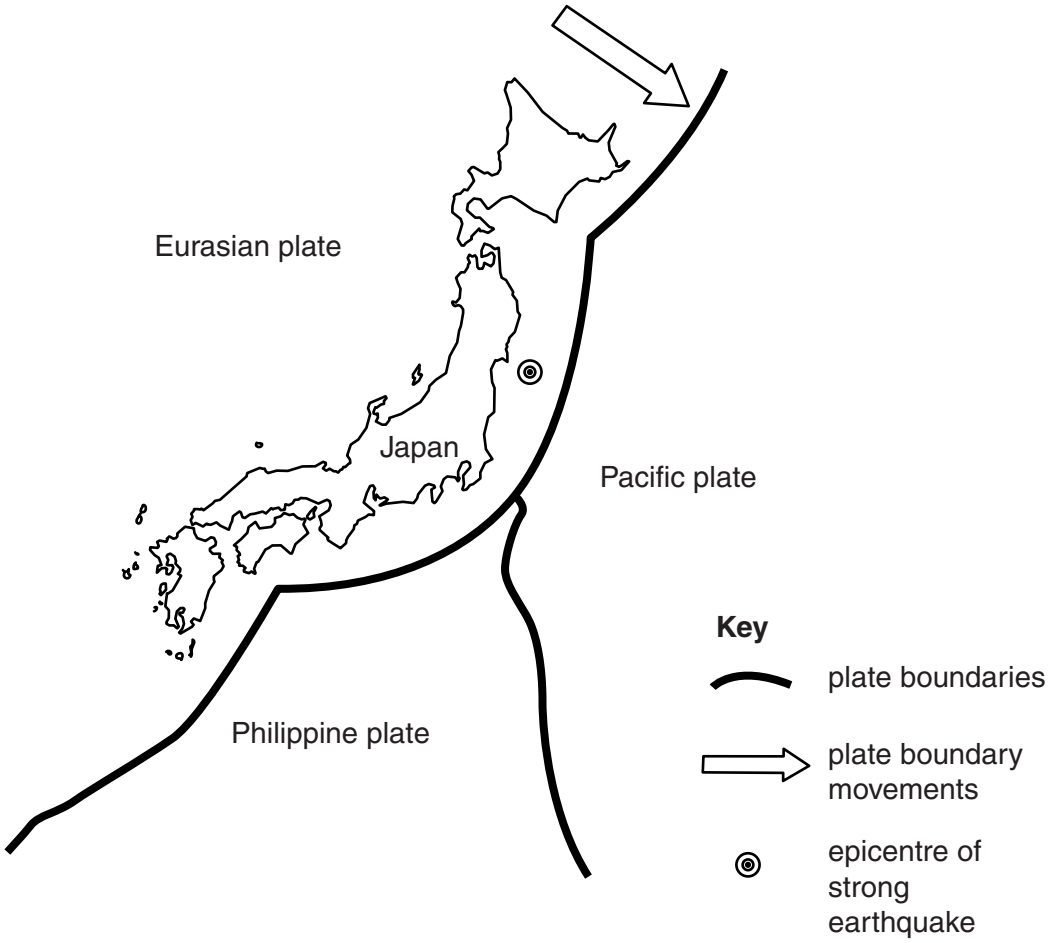
O ..... [2]

(ii) Complete the sentence below.

Layer **M** is called the …… . This layer is broken into large pieces, called …… plates, that move around. [2]

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(b) In 2011 a strong earthquake occurred off the coast of Japan. T



(i) Explain why a strong earthquake occurred at this location.

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(ii) Over 15 000 people living on the NE coast of Japan lost

Explain why people in this area were the worst affected.

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[Total: 10]

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