Cambridge IGCSE

Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME	
CENTRE NUMBER	
CANDIDATE NUMBER	

3032410025

ENVIRONMENTAL MANAGEMENT **0680/13**

Paper 1 **May/June 2018**

1 hour 30 minutes

Candidates answer on the Question Paper.

No Additional Materials are required.

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 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.

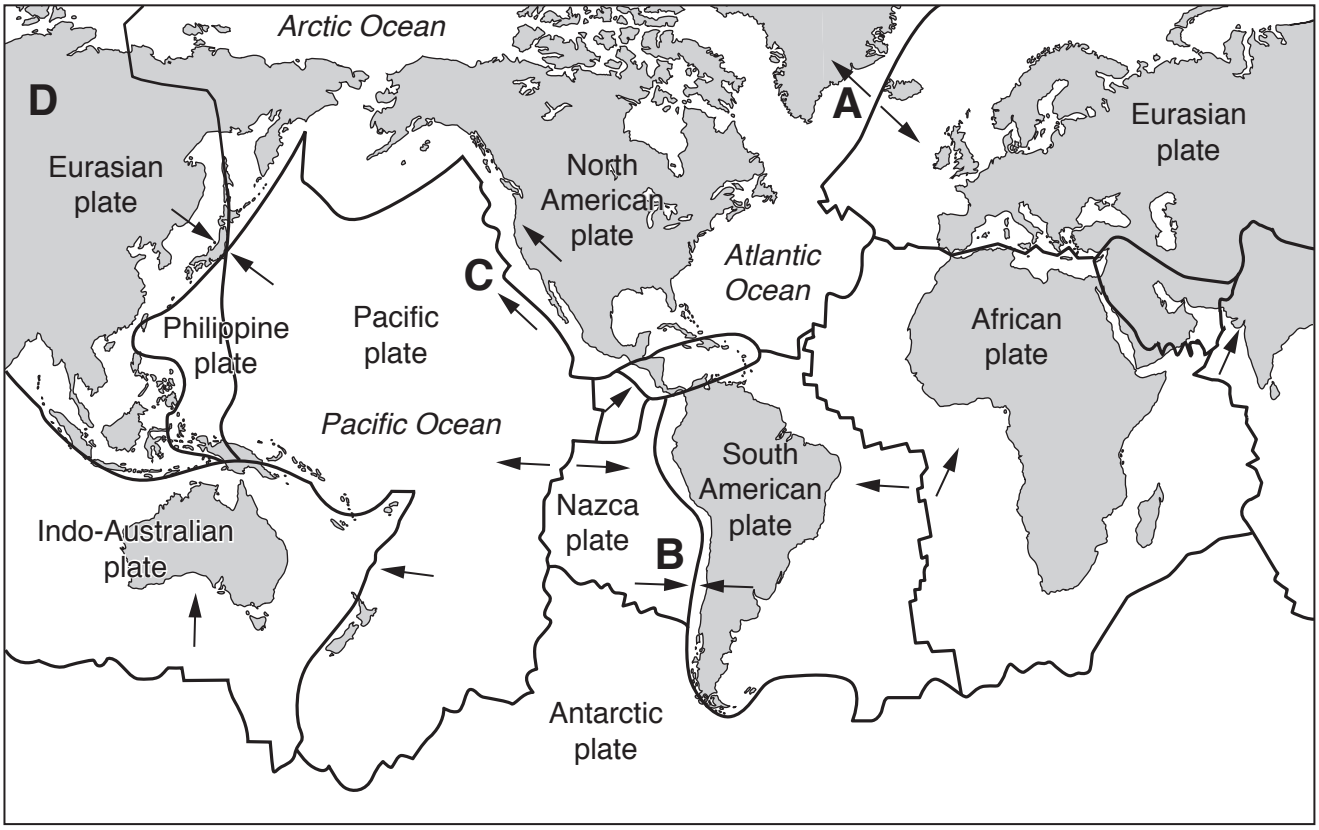
Electronic calculators may be used.
You may lose marks if you do not show your working or if you do not use appropriate units.

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.

This document consists of **13** printed pages and **3** blank pages.

CAMBRIDGE International Examinations

1 The map shows the Earth's main tectonic plate boundaries and the directions of tectonic plate movement.



Key

—— tectonic plate boundaries

—► direction of tectonic plate movement

(a) (i) Find letters **A** to **D** on the map.

State the letter of the location where:

- earthquakes are **not** likely to happen .....
- two plates are moving apart near an island .....
- two plates are moving towards each other .....
- two plates are sliding past each other ..... .

[2]

(ii) State **one** difference between the location of plate boundaries in the Atlantic Ocean and in the Pacific Ocean.

.....

..... [1]

(b) Suggest reasons why the number of deaths and injuries in earthquakes is often greater in developing countries than in developed countries.

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..... [3]

(c) Explain ways in which buildings can be designed to reduce the impact of an earthquake.

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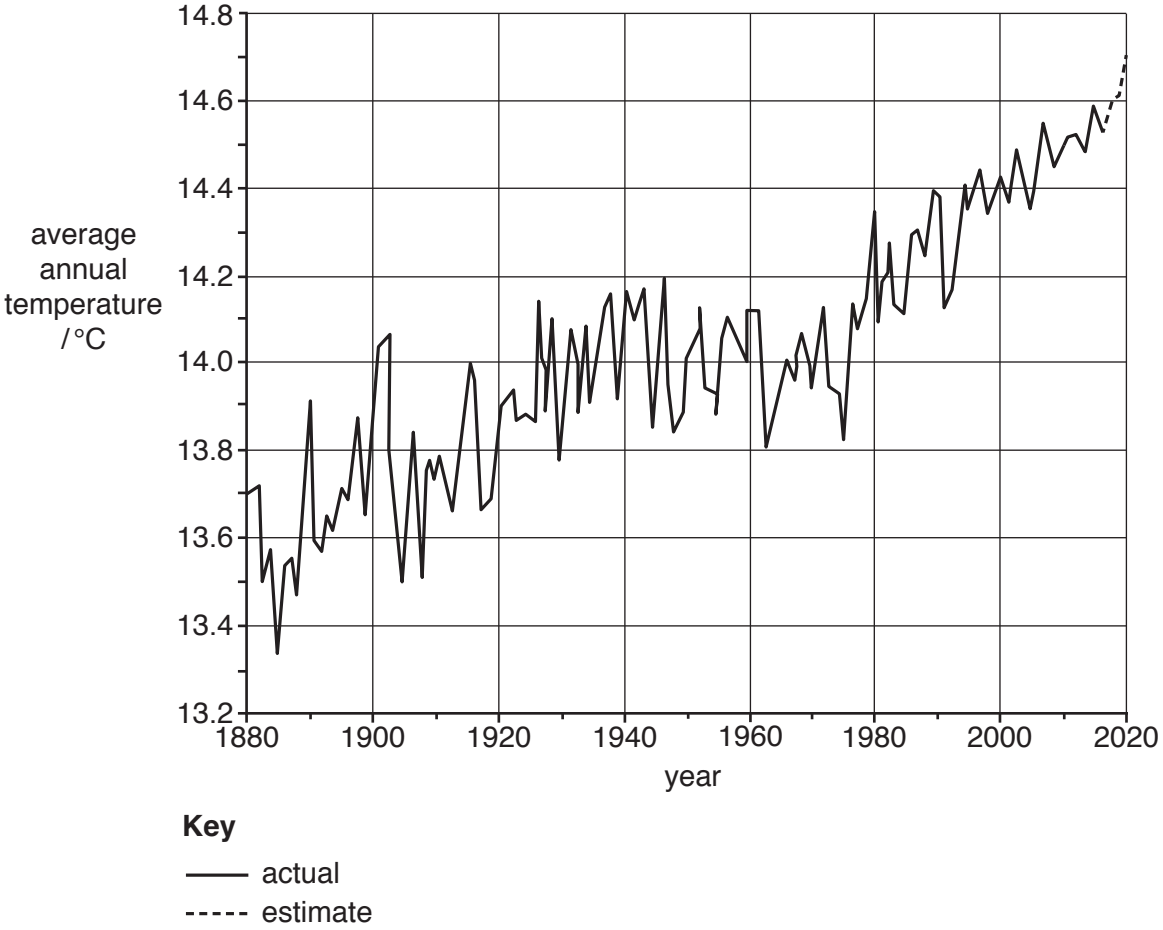
..... [4]

[Turn over

2 The graph shows the average annual temperature at the Earth's surface between 1880 and 2014. The data from 2015 to 2020 is an estimate.



(a) (i) Calculate the average annual increase in temperature, shown by the graph, between 1880 and 2020. Give your answer to three decimal places.

Show your working.

..... °C [2]

(ii) Circle the fifty year period with the greatest increase in average annual temperature.

1880 to 1930 **1920 to 1970** **1970 to 2020** [1]

(b) (i) Describe ways in which human activities are increasing the concentration of carbon dioxide and methane in the atmosphere.

carbon dioxide .....

.....

.....

.....

methane .....

.....

.....

.....

[4]

(ii) Suggest strategies for reducing the increase in temperature at the Earth's surface.

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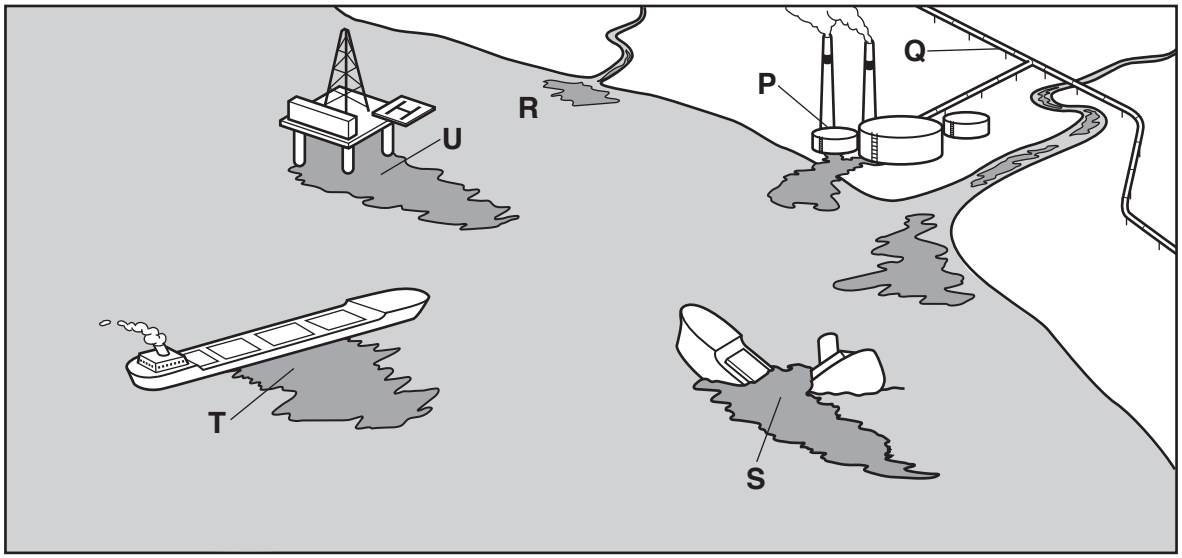
..... [3]

3 The diagram shows the main causes of oil pollution.



(a) Match each cause of oil pollution in the table with **one** of the letters, **P** to **U**, in the diagram.

cause	letter
accidents to ships in oceans	.....
illegal flushing of oil tanks by ships	.....
leaks from oil refineries	.....
leaks from oil rigs	.....
leaks from pipelines	.....
waste oil from land washed into oceans by rivers	.....

[3]

(b) Suggest **three** impacts of oil pollution on marine and coastal ecosystems.

1 .....

.....

2 .....

.....

3 .....

.....

[3]

(c) Describe ways to deal with oil spills in oceans.

.....

.....

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.....

.....

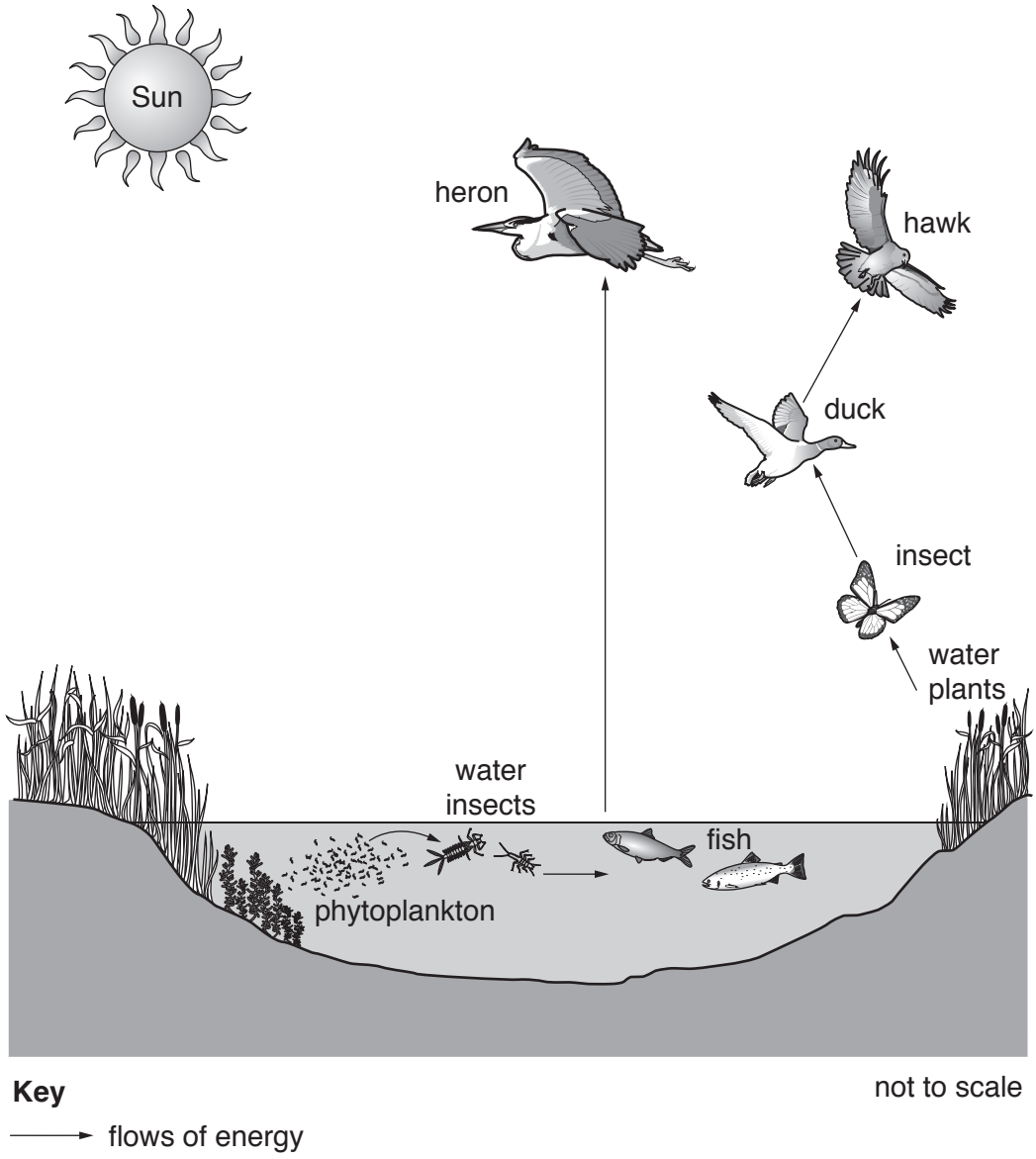
..... [3]

(d) Explain how oil tankers with double hulls have reduced the amount of oil spilled during accidents in oceans.

.....

..... [1]

4 The diagram shows part of a wetland ecosystem.



(a) (i) Name the primary source of energy in this ecosystem.

..... [1]

(ii) Name **two** producers in the ecosystem in the diagram.

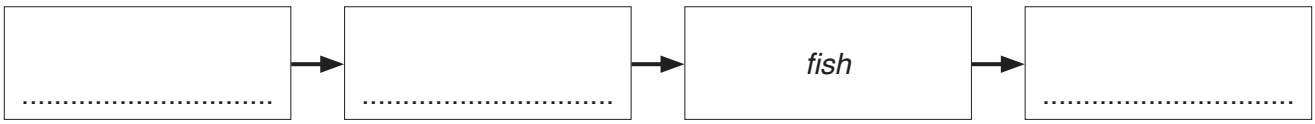
1 .....

2 .....

[1]

(iii) The arrows on the diagram show some of the flows of energy in the ecosystem.

Use the diagram of the wetland ecosystem to complete the food chain.



[1]

(iv) The water insects shown in the diagram are primary consumers. Other water insects are secondary consumers.

Explain the difference between a primary consumer and a secondary consumer.

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.....

.....

..... [2]

(b) Define the ecosystem terms, *population* and *community*.

population .....

.....

community .....

.....

[2]

(c) Suggest how draining a wetland could affect wildlife.

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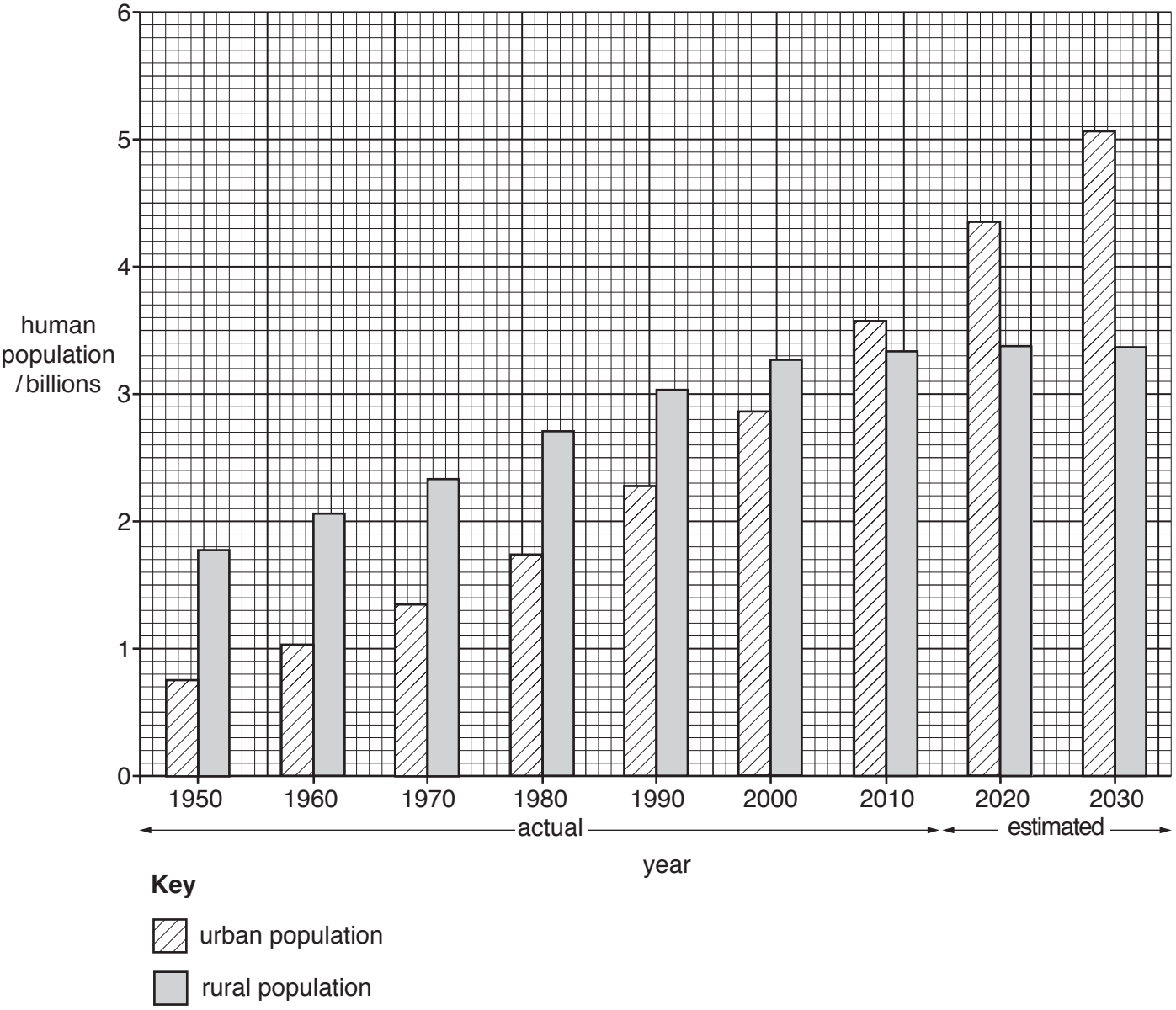
..... [3]

5 The bar graph shows the world rural and urban human population from 1950 to 2010. The data for 2020 and 2030 are estimates.



(a) **(i)** State the year on the bar graph when the urban population became greater than the rural population.

..... [1]

(ii) Describe the trend in rural population shown on the graph.

.....

.....

.....

..... [2]

(b) State **two** ways the population of places increases.

1 .....

2 .....
[1]

(c) Suggest **three** push factors that would encourage people to leave a rural area.

1 .....

.....

2 .....

.....

3 .....

.....
[3]

(d) Describe environmental problems caused by the rapid growth of urban areas.

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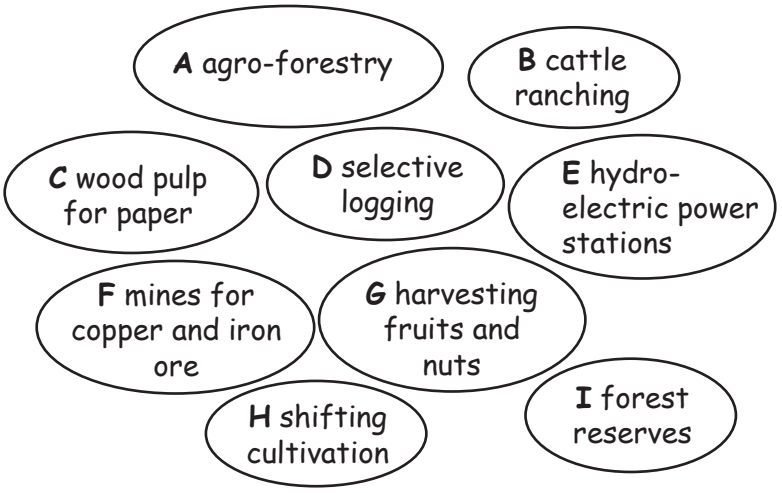
..... [3]

6 The diagram shows some ways of using tropical rainforests.



(a) (i) State the letters of **four** sustainable ways of using tropical rainforests.

1 ..... 2 .....

3 ..... 4 .....

[2]

(ii) State the letters of **two** ways of using tropical rainforests that are **not** sustainable.

1 ..... 2 .....

[1]

(b) Explain how ecotourism could benefit tropical rainforests.

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.....

..... [3]

(c) Soil erosion is a consequence of deforestation.

Describe strategies for soil conservation.

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..... [4]

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