



**Cambridge International Examinations**  
Cambridge International General Certificate of Secondary Education

CANDIDATE  
NAME

CENTRE  
NUMBER

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CANDIDATE  
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**ENVIRONMENTAL MANAGEMENT**

**0680/12**

Paper 1

**May/June 2017**

**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.

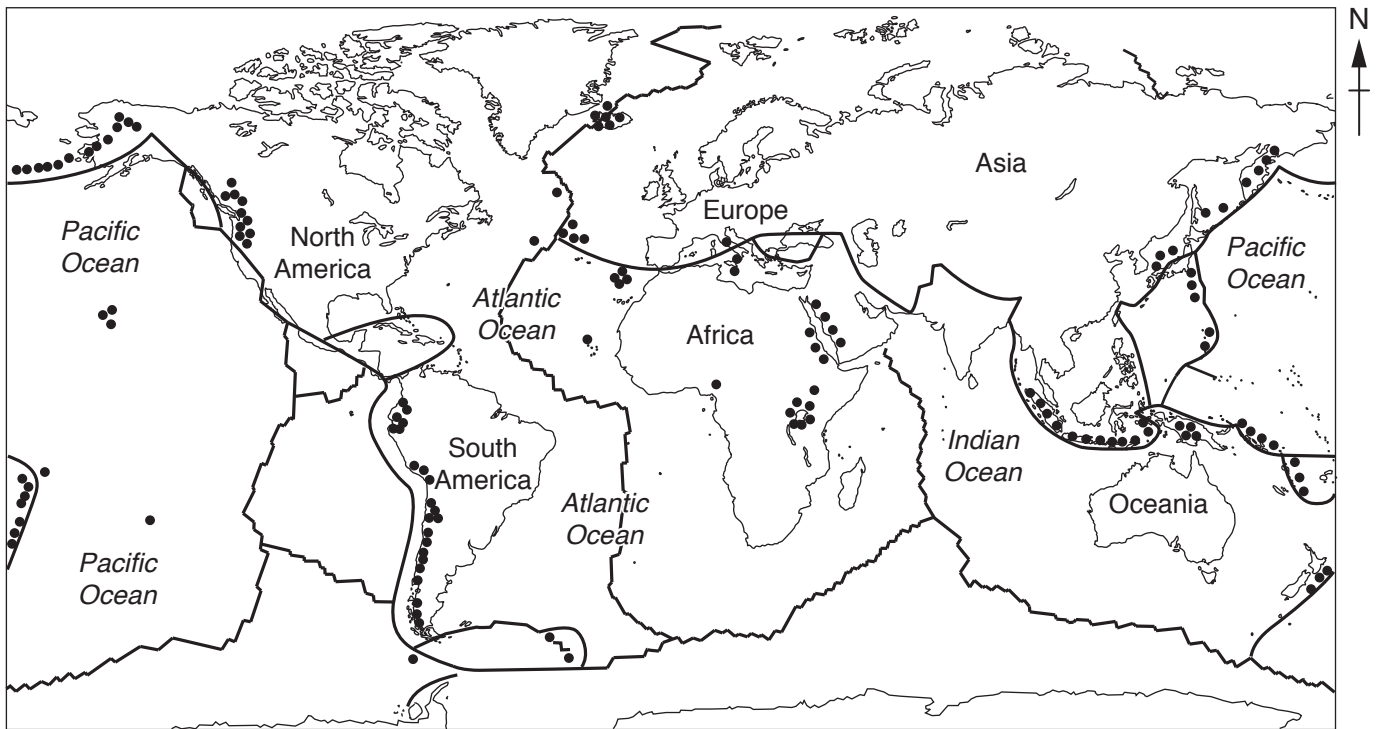
You may lose marks if you do not show your working or if you do not use appropriate units.

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.

1 The map shows plate boundaries and some active volcanoes.



**Key**

- plate boundaries
- active volcanoes

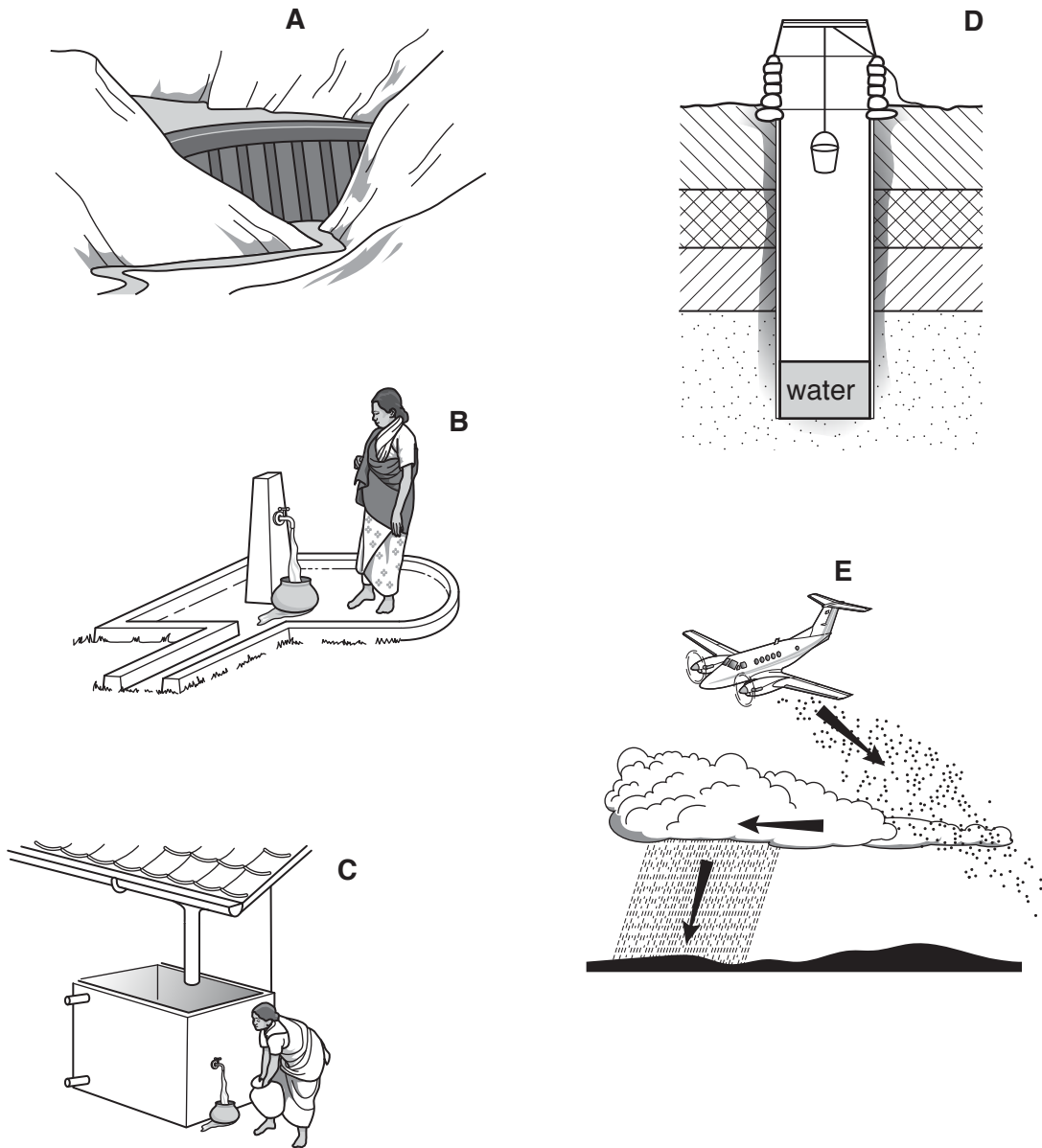
(a) Use the map and the key to complete the passage.

Most active volcanoes are near ..... Over half of the active volcanoes are located around the ..... Ocean. There are volcanoes near the plate boundaries in the middle of the ..... Ocean.

Some volcanoes on this map are far away from plate boundaries, for example the volcanoes on the eastern side of ....., and also the volcanoes caused by hotspots in the middle of the ..... Ocean. [3]



2 The diagram shows different methods of obtaining fresh water.



(a) (i) Match the letters, **A** to **E**, in the diagram to the methods of obtaining fresh water.

- cloud seeding .....
- dam .....
- rainwater harvesting .....
- stand-pipe .....
- well .....

[3]

**(ii)** Suggest why desalination is used to supply fresh water in some countries but not in other countries.

.....  
.....  
.....  
..... [2]

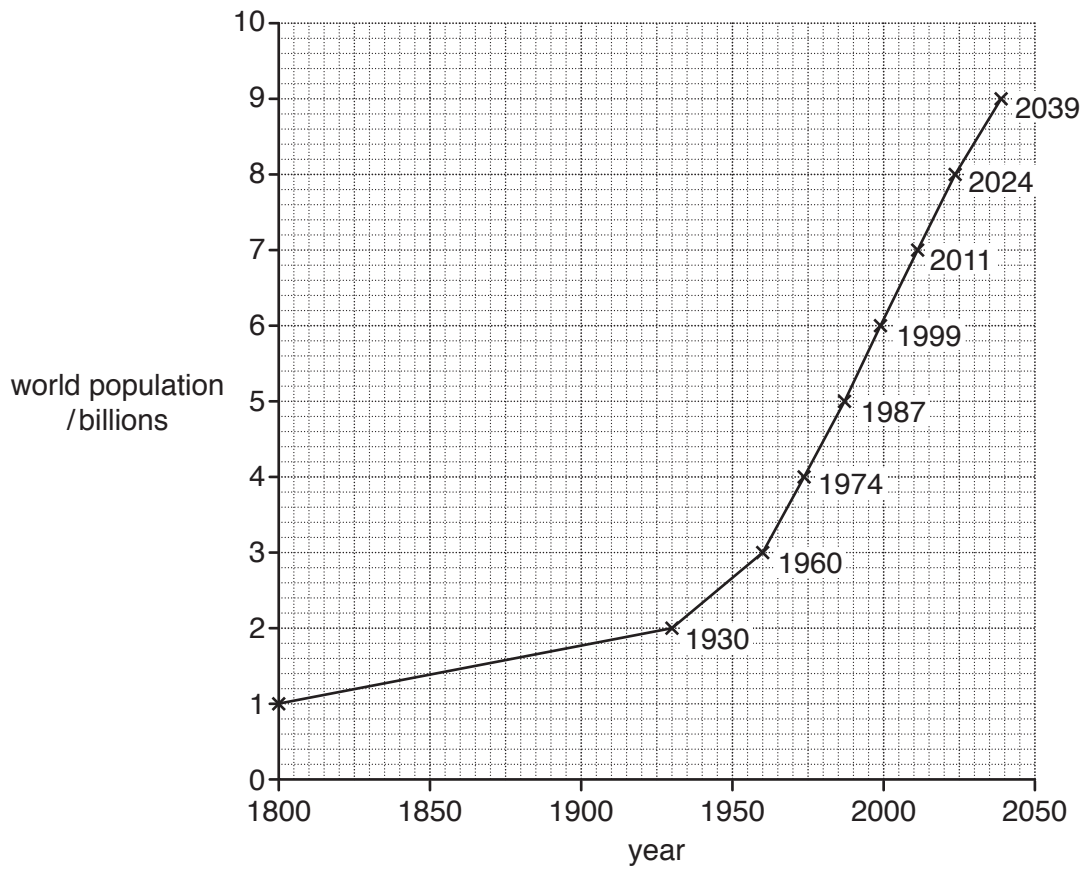
**(b) (i)** Explain why access to safe water and sanitation is often limited in rural areas of developing countries.

.....  
.....  
.....  
.....  
.....  
..... [3]

**(ii)** Explain why it is important for developing countries to improve access to safe water and sanitation.

.....  
.....  
.....  
..... [2]

3 The graph shows the growth in world population since 1800 and the estimated growth by 2039.



(a) (i) Use the graph to estimate the world population in 1825.

..... billion [1]

(ii) Use the graph to complete the table.

| year  | world population /billions | number of years for world population to double |
|-------|----------------------------|--|
| 1800  | 1                          |  |
| 1930  | 2                          | 130  |
| ..... | 4                          | .....  |
| ..... | 8 (estimate)               | .....  |

[2]

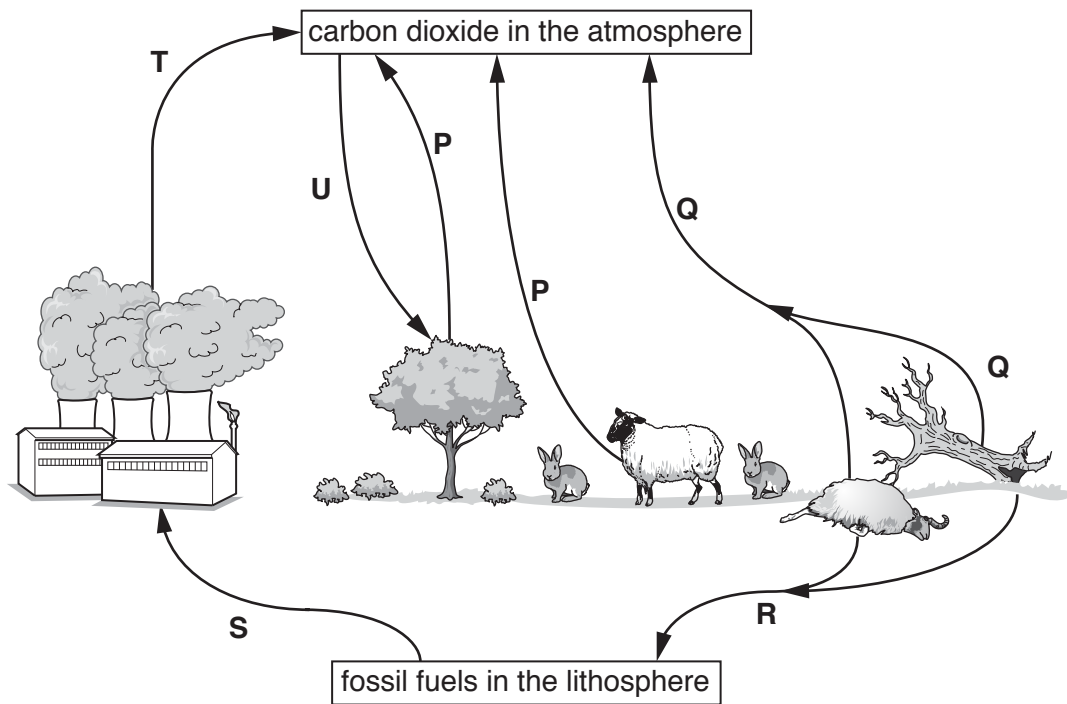
(iii) Explain why the world population has grown rapidly since 1950.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
..... [4]

(b) Suggest why the education of girls is an important strategy for managing population growth.

.....  
.....  
.....  
.....  
.....  
..... [3]

4 The diagram shows some processes in the carbon cycle.



(a) Complete the table using letters **P** to **U** from the diagram.

| process name                 | letter |
|------------------------------|--------|
| combustion                   | .....  |
| decomposition                | .....  |
| fossilisation                | .....  |
| mining and pumping           | .....  |
| photosynthesis               | .....  |
| plant and animal respiration | .....  |

[3]

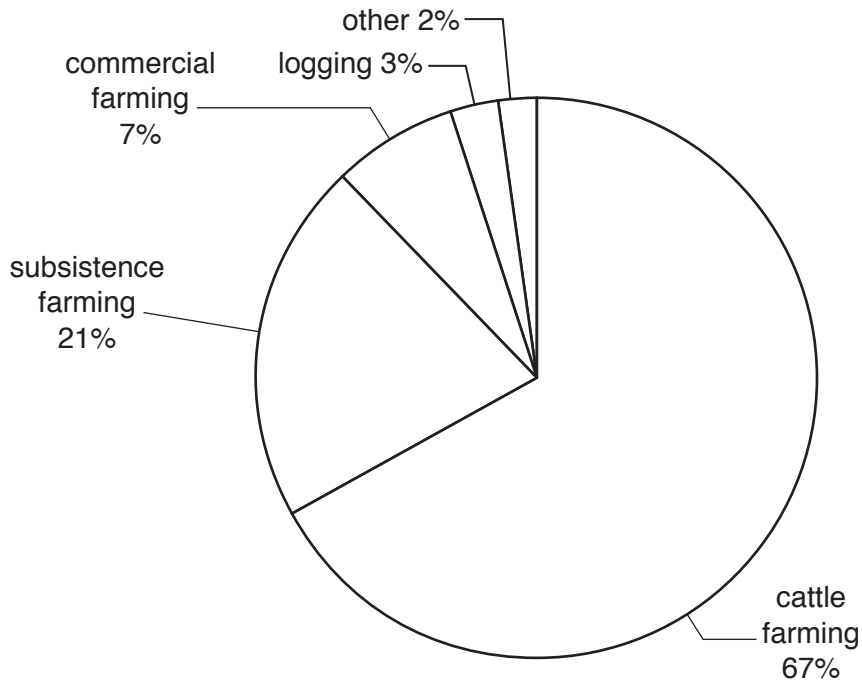








6 The pie graph shows the causes of deforestation in the Amazon rainforest in Brazil between 2000 and 2005.



(a) (i) State the main cause of deforestation shown in the pie graph.

.....[1]

(ii) Calculate the percentage of the rainforest that the pie graph shows was cleared for farming.

Show your working.

.....% [2]

(iii) Explain what is meant by the terms *subsistence farming* and *commercial farming*.

subsistence farming

.....  
 .....

commercial farming

.....  
 .....

[2]

(iv) The pie graph shows that 2% of the Amazon rainforest was cleared for 'other' causes.

Suggest the causes of this deforestation.

.....  
.....  
.....  
.....  
.....  
.....  
..... [3]

(b) Describe **one** strategy for the sustainable management of rainforests.

.....  
.....  
.....  
..... [2]





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