



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE
NAME

CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--



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.

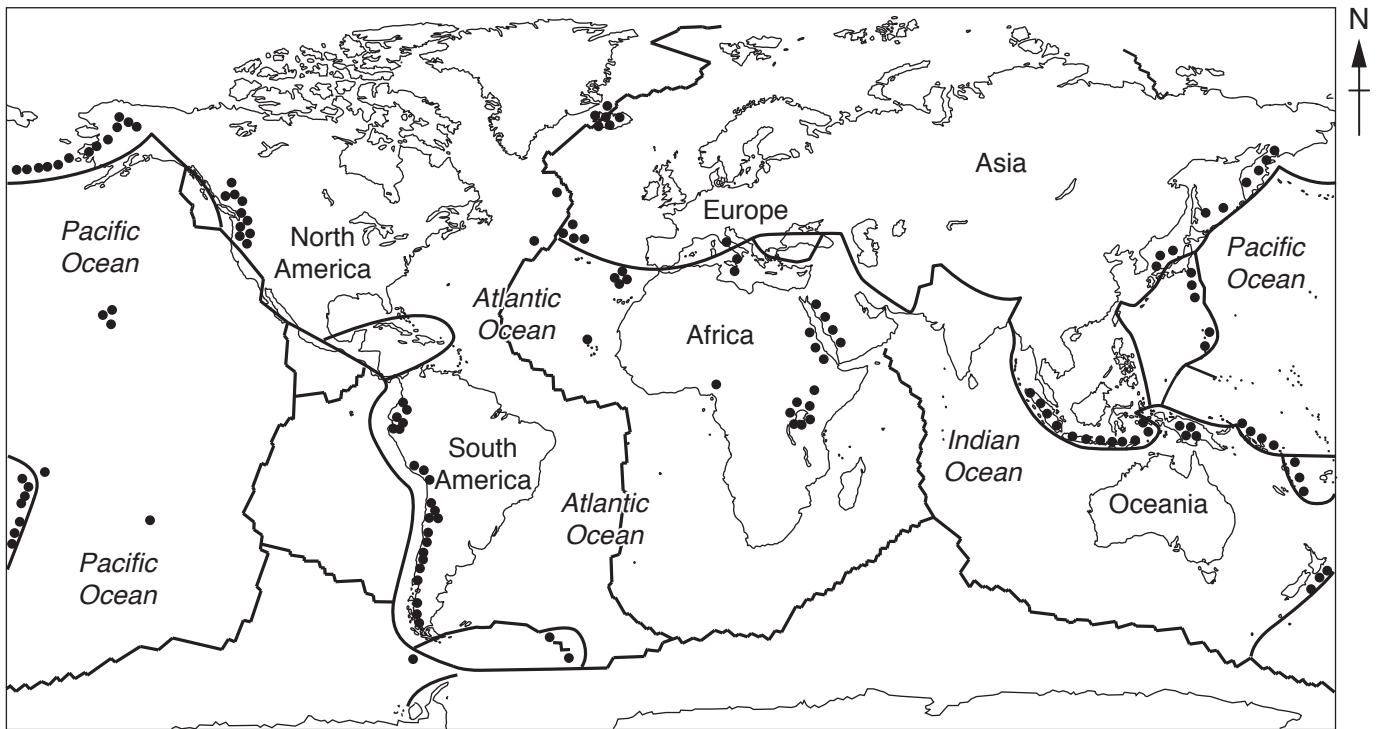
You may lose marks if you do not show your working or if you do not use appropriate units.

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]

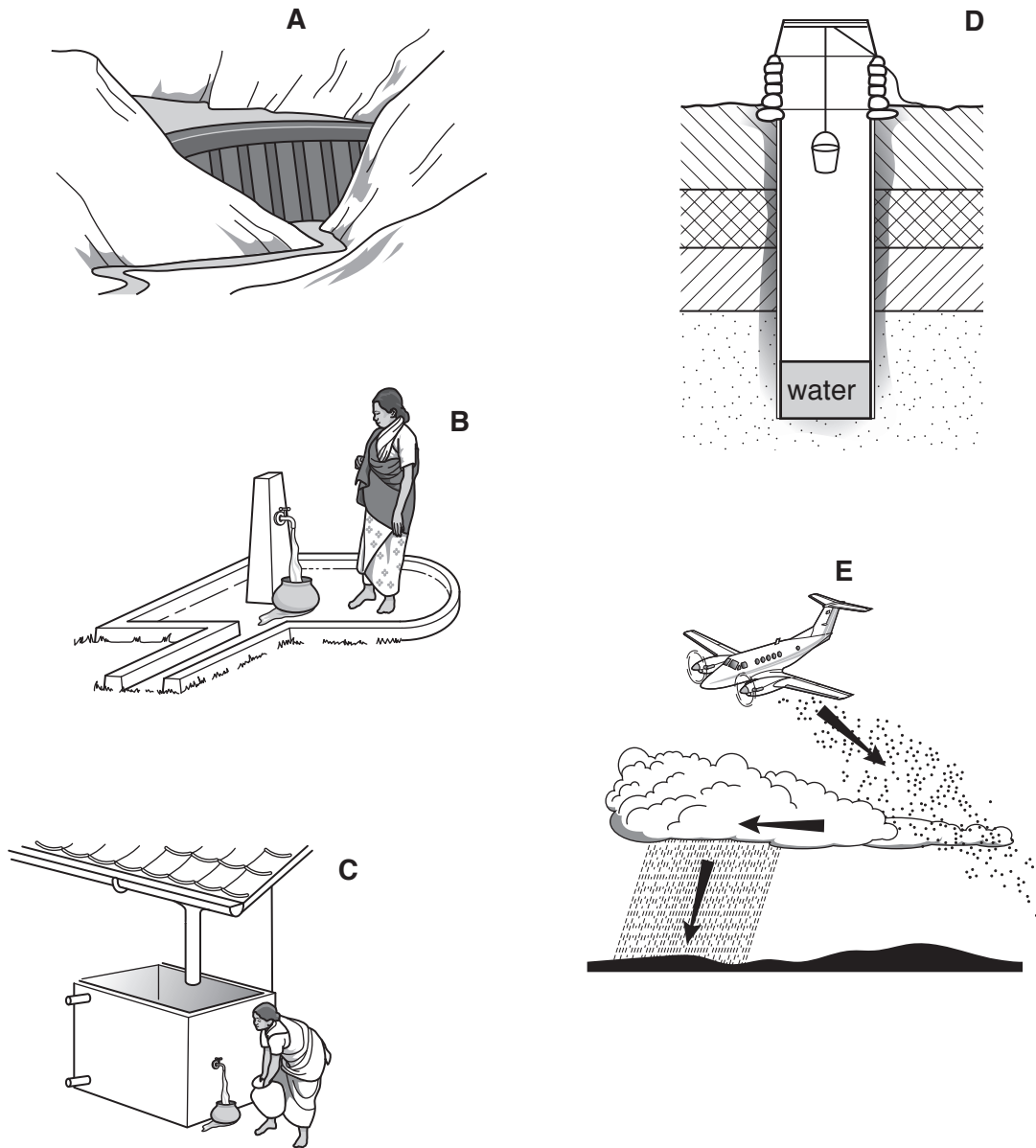
(b) Describe how volcanoes are formed at destructive plate boundaries.

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

(c) Suggest **three** strategies that can be used to manage the impact of a volcanic eruption.

.....
.....
.....
.....
.....
.....
.....[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]

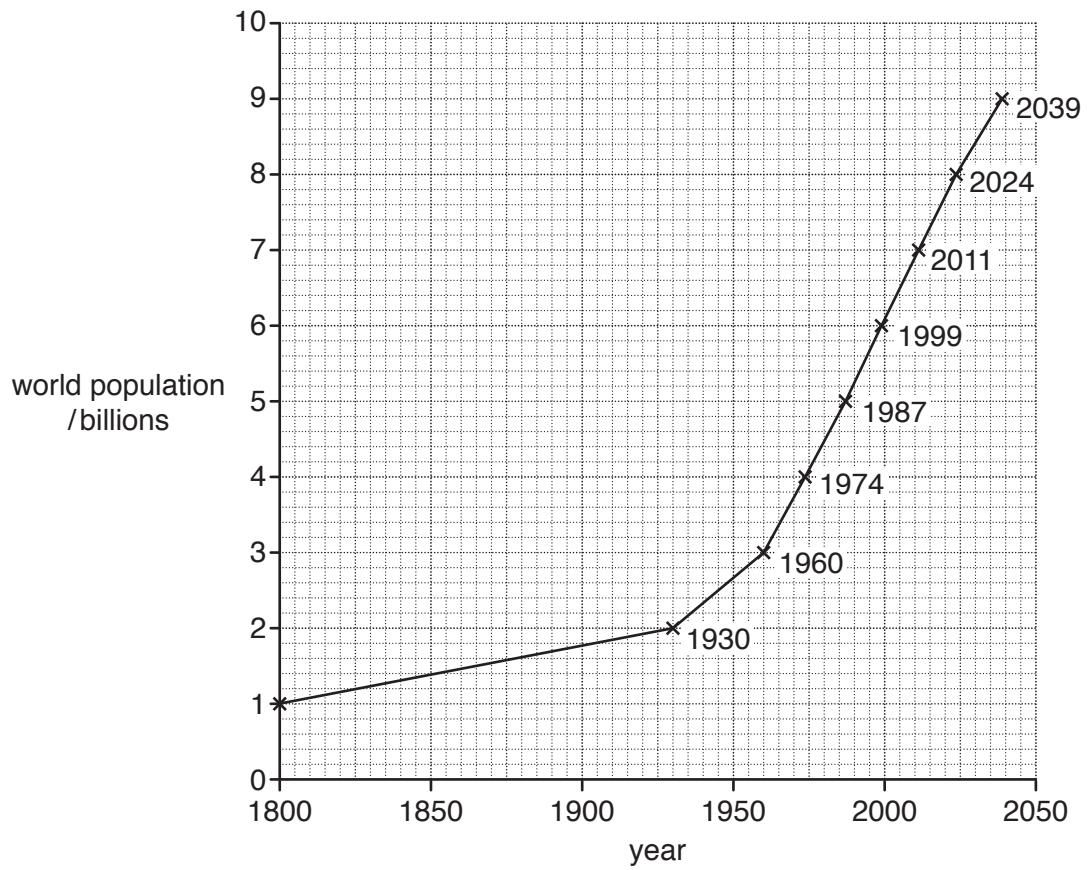
(b) (i) Explain why access to safe water and sanitation is often limited in rural areas of developing countries.

.....
.....
.....
.....
.....
..... [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.

.....

.....

.....

.....

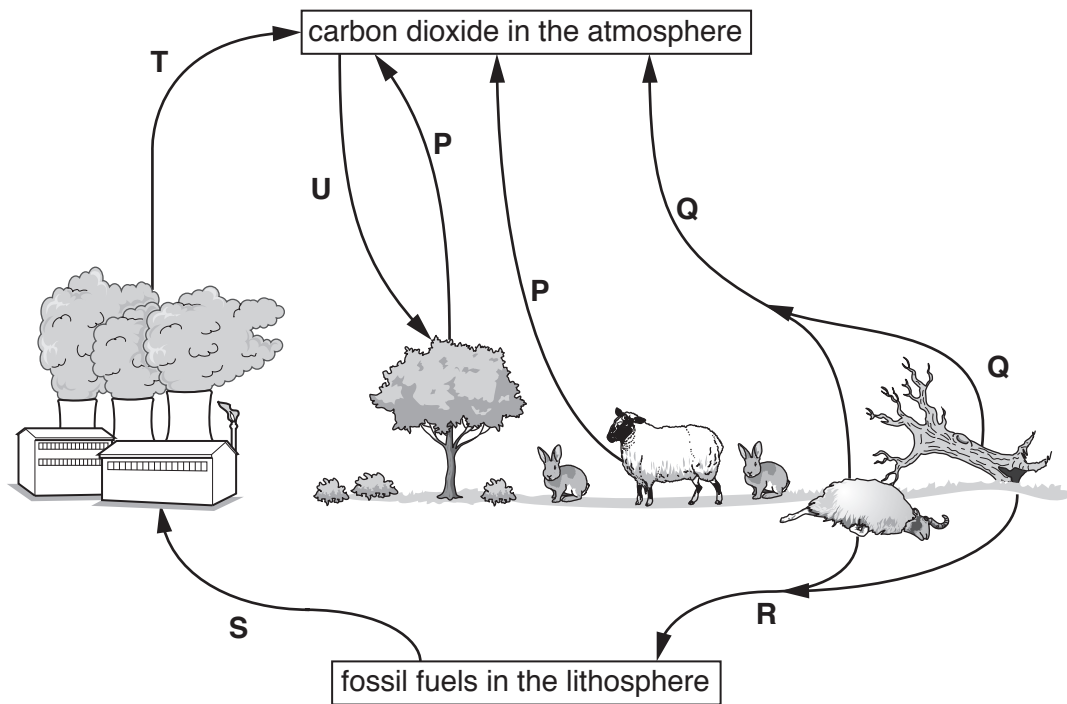
.....

.....

.....

..... [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]

(b) Describe how coal is formed.

.....

.....

.....

.....

.....

.....

.....

..... [3]

(c) Suggest **four** ways that supplies of fossil fuels could be conserved.

.....

.....

.....

.....

.....

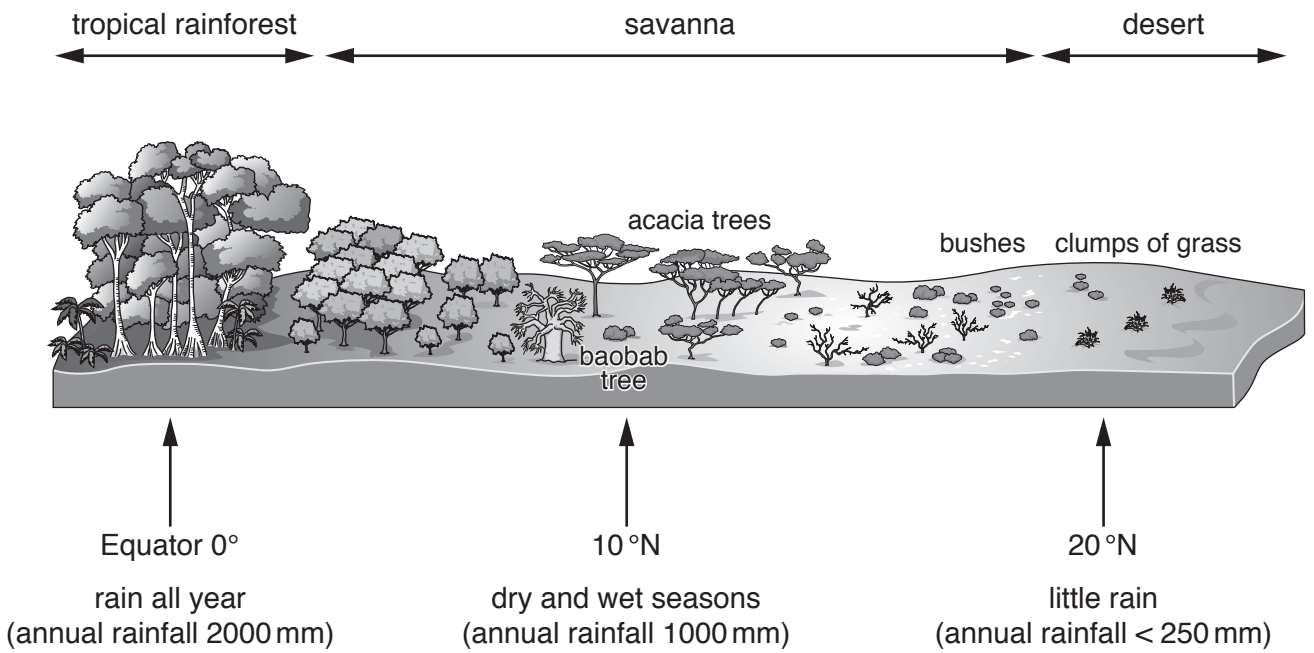
.....

.....

.....

..... [4]

5 The diagram shows changes in vegetation across Africa from the Equator to 20°N.



(a) (i) Use the diagram to describe the changes in vegetation from the Equator to 20°N.

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

(ii) Use the diagram and your own knowledge to explain how vegetation in the savanna is adapted to the climate.

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

(b) Desertification is a problem in some parts of the world.

Suggest **four** causes of desertification.

.....

.....

.....

.....

.....

.....

.....

.....

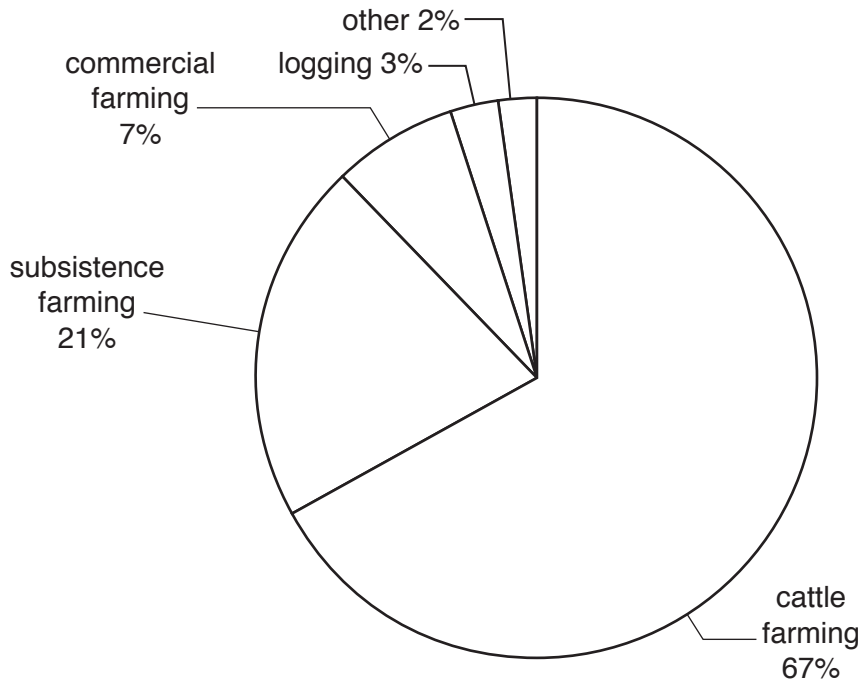
.....

.....

.....

[4]

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]

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge International Examinations Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cie.org.uk after the live examination series.

Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.