



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

CANDIDATE  
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**ENVIRONMENTAL MANAGEMENT**

**0680/13**

Paper 1

**October/November 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.

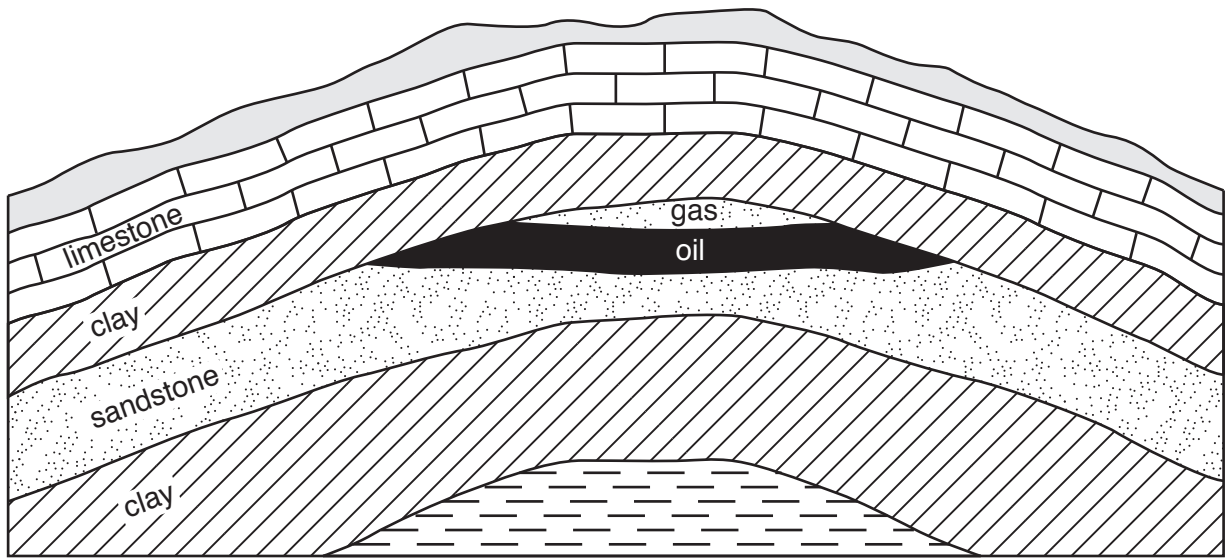
You may lose marks if you do not show your working or if you do not use appropriate units.

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 diagram shows oil trapped in rocks.



(a) (i) State the name of the rock in which the oil is trapped.  
.....[1]

(ii) Circle the rock type of the rocks named in the diagram.  
**igneous                  metamorphic                  sedimentary** [1]

(iii) Explain how the oil is trapped in the rock in the diagram.  
.....  
.....  
.....  
.....[2]

(iv) Describe how an oil company could extract the oil from the rock in the diagram.  
.....  
.....  
.....  
.....  
.....[3]

- (b) Suggest ways the environment could be damaged when oil is transported from one part of the world to another.

.....

.....

.....

.....

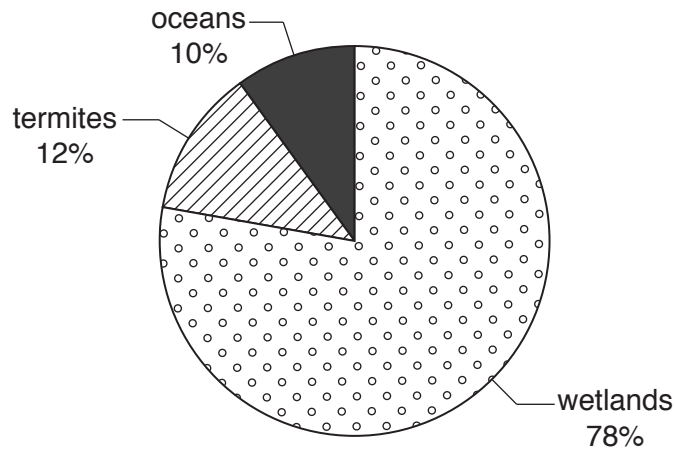
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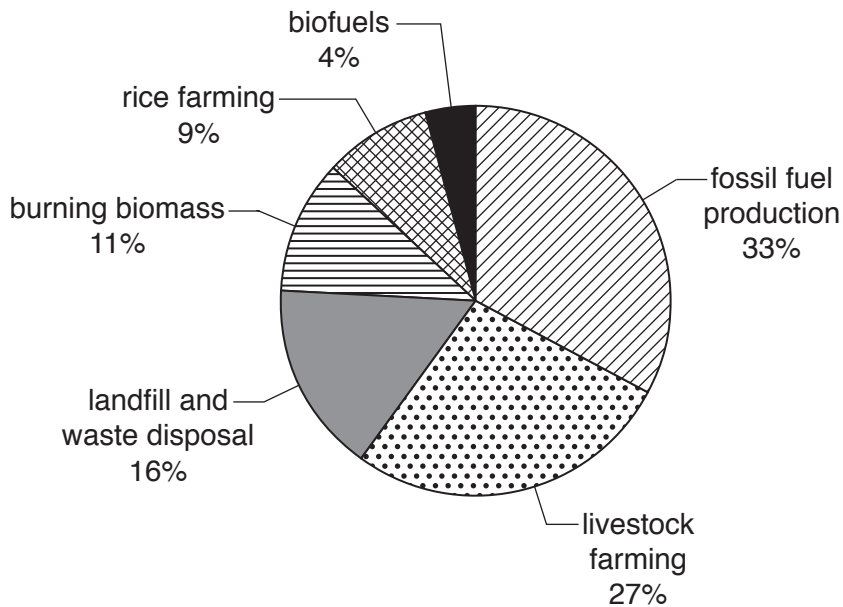
.....[3]

2 The pie graphs, **A** and **B**, show the main sources of methane in the atmosphere.

**A: natural sources of methane**



**B: sources of methane from human activities**



(a) (i) Name the largest natural source of methane.

.....[1]

(ii) Name the human activity that produces the most methane.

.....[1]

(iii) Calculate the percentage of methane produced by livestock and rice farming.

Space for working.

.....% [1]

(b) (i) State and explain **one** way that rising global temperatures are affecting the environment.

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

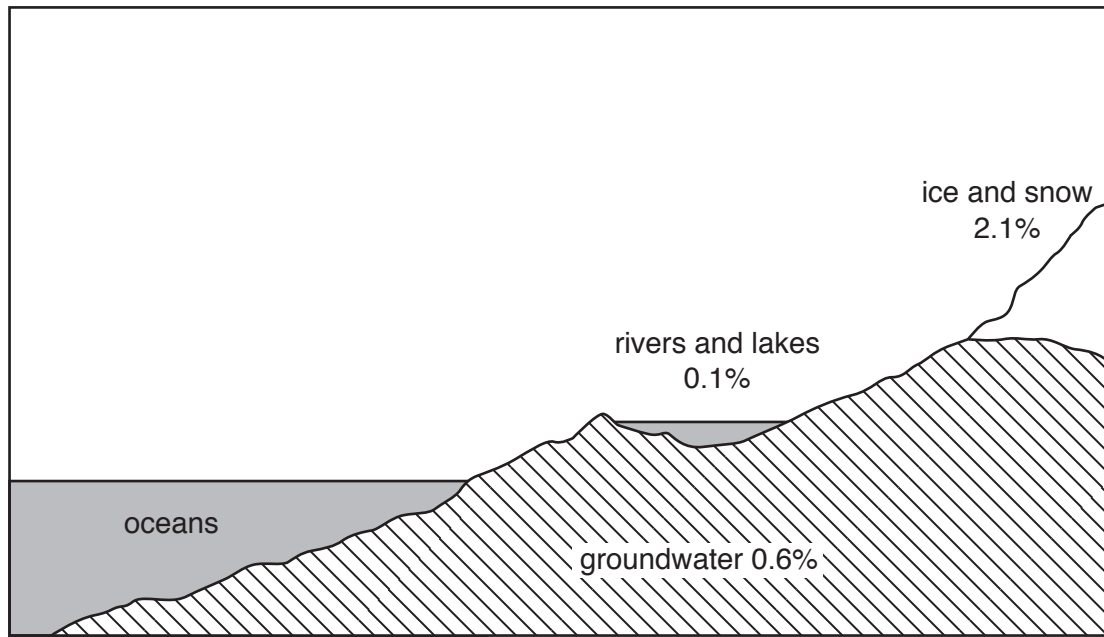
(ii) State and explain **one** way that rising global temperatures are affecting people.

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

(iii) Suggest strategies people can use to reduce greenhouse gas emissions.

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

3 The diagram shows the percentage of water found in stores in the water cycle.



(a) (i) Calculate the percentage of water in oceans. Give your answer to one decimal place.

Show your working.

.....% [2]

(ii) Name the **two** main stores of water shown in the diagram.

1 .....

2 .....

[1]

(iii) Explain why only a limited amount of clean fresh water is available for human use.

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

**(b)** In some countries dams have been built across rivers to increase the supply of fresh water.

Suggest reasons why some people do **not** want dams built.

.....

.....

.....

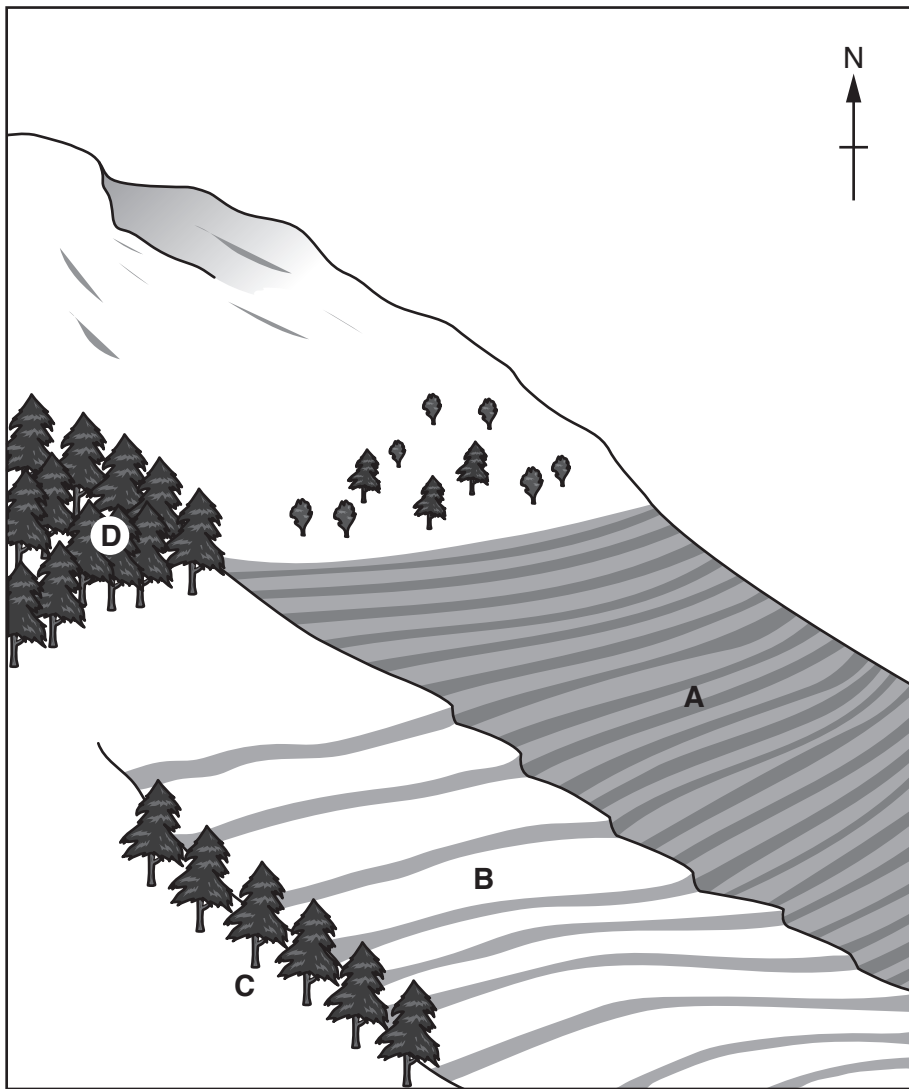
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.....

.....

.....[3]

4 The diagram shows four methods used to conserve soil.



(a) (i) Complete the table using letters **A** to **D** from the diagram.

method	letter
contour ploughing	.....
terracing	.....
tree planting	.....
wind break	.....

[2]

(ii) Suggest the direction from which the wind blows in the area shown in the diagram.

.....[1]



(b) Explain how planting trees can conserve the soil and prevent soil erosion.

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

(c) Suggest **three** strategies for reducing deforestation.

1 .....

.....

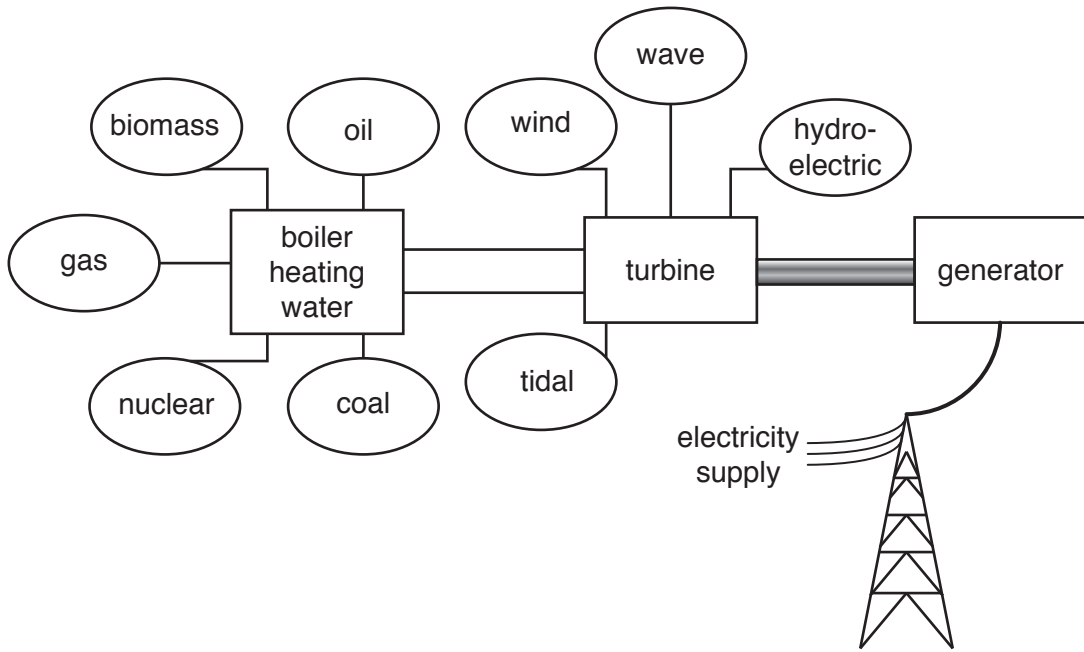
2 .....

.....

3 .....

.....[3]

5 The diagram shows some types of energy production.



(a) (i) State **two** types of energy production, shown on the diagram, that use heat.

- 1 .....
- 2 ..... [1]

(ii) State **two** renewable sources of energy shown on the diagram.

- 1 .....
- 2 ..... [1]

(iii) State **two** sources of energy, shown on the diagram, that are fossil fuels.

- 1 .....
- 2 ..... [1]

(b) Explain **two** advantages and **two** disadvantages of using wind power to generate electricity.

advantages .....

.....

.....

.....

disadvantages .....

.....

.....

.....

[4]

(c) Iceland is located in the northern Atlantic Ocean close to the Arctic Circle on a plate boundary.

(i) Suggest **one** reason why people use more energy per person in Iceland than in any other country.

.....

.....[1]

(ii) Suggest how living on a plate boundary meets most of the energy needs of people in Iceland.

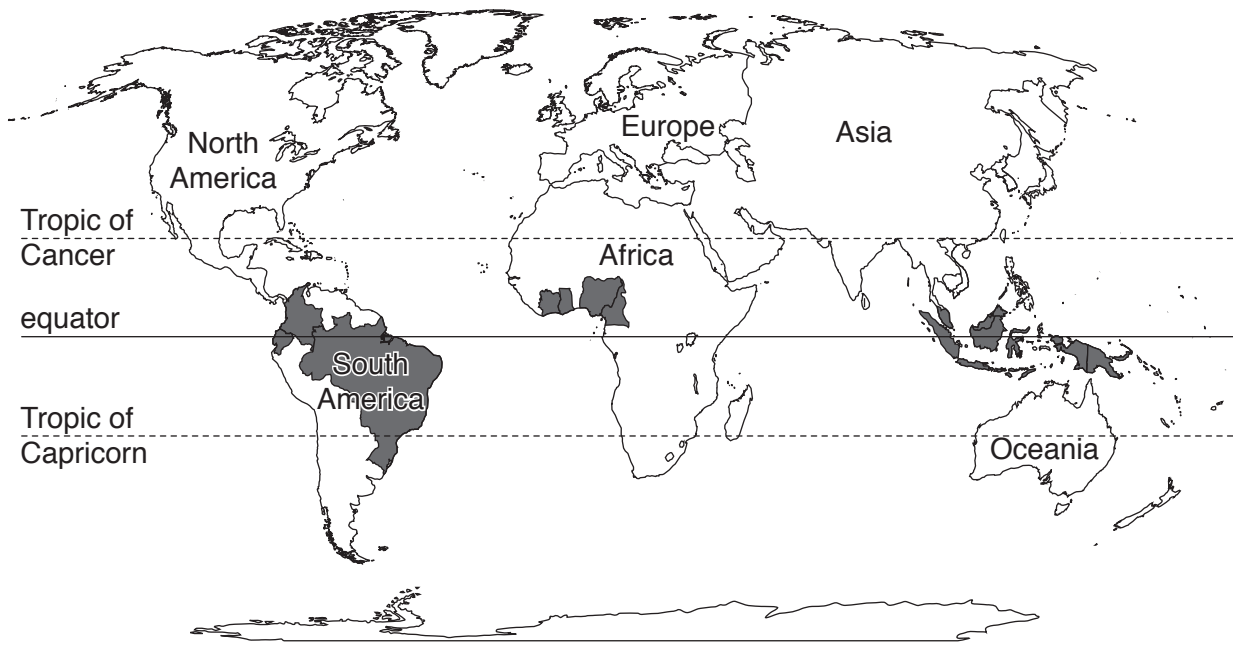
.....

.....

.....

.....[2]

6 The map shows the main cocoa producing countries.



**Key**

■ main cocoa producing countries

(a) Describe the distribution of the main cocoa producing countries shown on the map.

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

(b) Cocoa farming is an example of intensive farming.

Explain what is meant by the term *intensive farming*.

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

(c) Five percent of cocoa is grown on very large farms called plantations.

Describe **two** problems that growing only one crop can cause.

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

(d) Suggest reasons why over 72% of the cocoa produced is exported to countries in North America and Europe.

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

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