

Centre Number	Candidate Number	Name
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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

**ENVIRONMENTAL MANAGEMENT**

**0680/01**

Paper 1

May/June 2006

**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.

Answer **all** questions.

At the end of the examination, fasten all your work securely together.

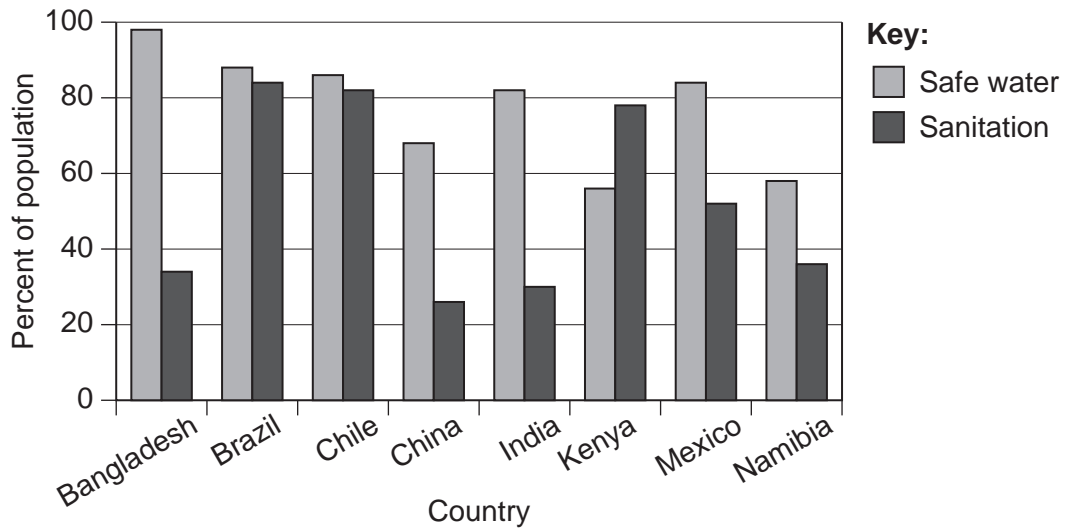
The number of marks is given in brackets [ ] at the end of each question or part question.

For Examiner's Use	
1	
2	
3	
4	
5	
6	
<b>Total</b>	

This document consists of **12** printed pages and **4** blank pages.



- 1 The diagram shows the percentage of the population of different countries that has access to safe water and to sanitation.



(a) (i) Which country has the lowest percentage of its population with safe water?  
.....[1]

(ii) Which country has the highest percentage of its population with sanitation?  
.....[1]

(b) (i) Name **two** diseases which are carried by water.

Carried by water

1 .....

2 .....[2]

(ii) Name **two** diseases which are transmitted by animals which live all, or part, of their lives in water.

Transmitted by water animals

1 .....

2 .....[2]

(c) Local people and government could find ways to improve sanitation. Describe **one** way in which *each* could achieve this.

Local people

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

Local or National Government

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

[Total: 10]

2

# MOUNT VESUVIUS, ITALY

In the year 79AD the volcano Vesuvius, in Italy, erupted. This event killed thousands of people and destroyed the cities of Pompeii and Herculaneum. Since this time, Vesuvius has erupted over thirty times, most recently in 1944, with activity every 75 years or so. Today, however, over 2 million people still live on, or near, the slopes of this volcano.

(a) (i) What is a volcano?

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

(ii) Describe **two** major problems that survivors of the eruption in the year 79AD might have faced.

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

(iii) Explain why people are still prepared to live near volcanoes, despite the dangers.

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

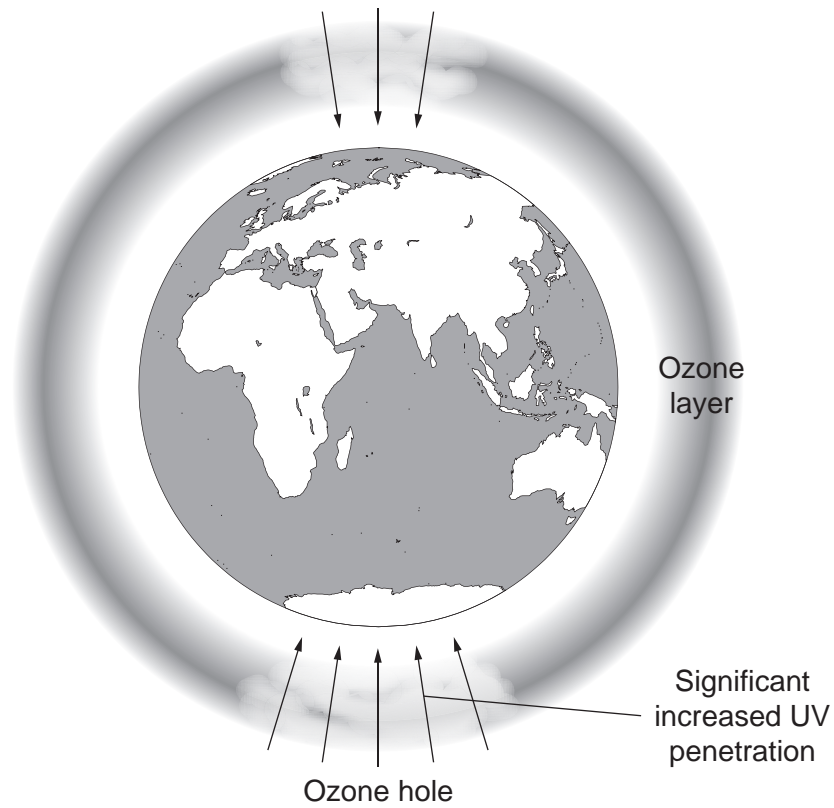
(b) In a country with volcanoes what strategies can be used to reduce the impact of future eruptions in the country?

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

[Total: 10]

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3 (a) The diagram below, shows the Earth and its atmosphere.



(i) Draw a simple sketch in the space below to show what this diagram would look like if it was showing the Earth and the ozone layer many thousands of years ago.

[1]

(ii) Explain the causes of the changes between the diagram and your sketch.

.....

.....

.....

.....

.....

[2]

(iii) How might the changes affect humans and the environment?

.....

.....

.....

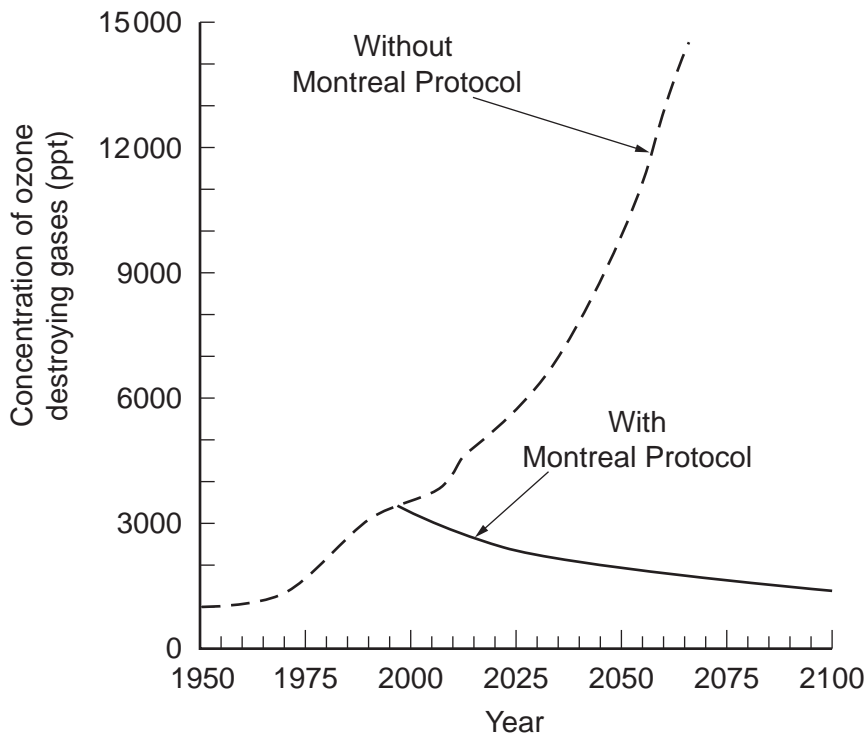
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.....[4]

(b) The following graph shows the amount of ozone destroying gases predicted to be present in the atmosphere if countries do **not** follow the Montreal Protocol (an International Agreement) to reduce damage to the ozone layer. It also shows what might happen if they do. What actions do you think the Montreal Protocol suggested countries should take with regard to ozone?



.....

.....

.....

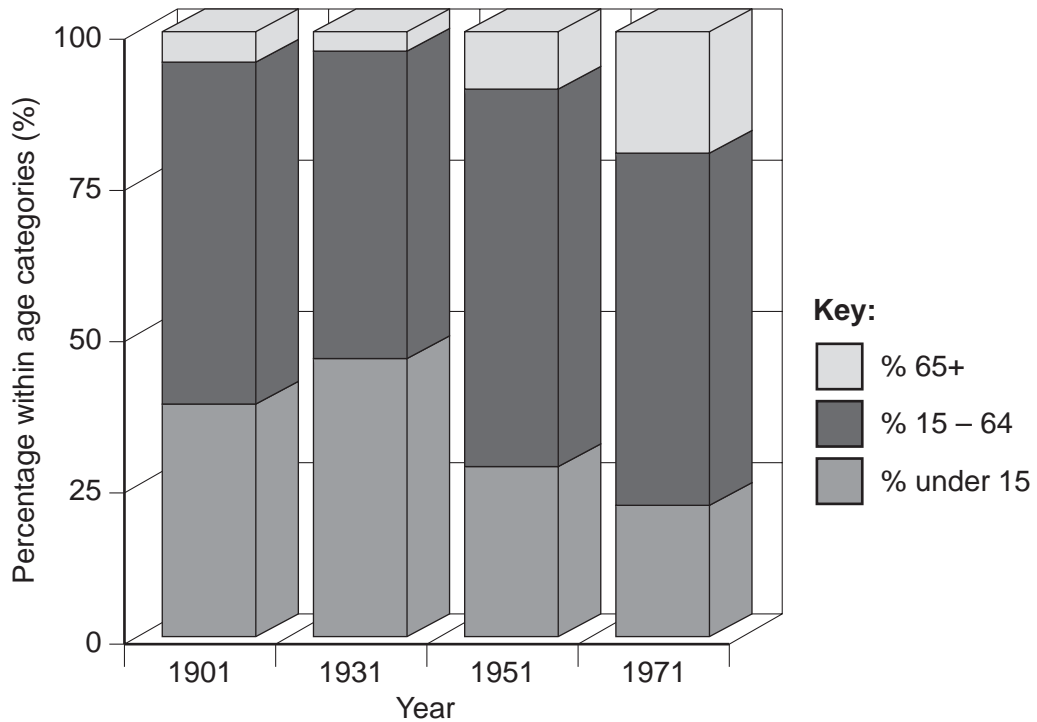
.....

.....

.....[3]

[Total: 10]

- 4 The United Kingdom population is *growing* at a rate of about 0.4% per year. The diagram below shows how the United Kingdom population has changed in structure, since 1901.



- (a) (i) What proportion (%) of the population was aged 65+ in 1971?

.....[1]

- (ii) What proportion (%) of the population was aged 65+ in 1901?

.....[1]

- (iii) Using the diagram describe the changes in age structure which the United Kingdom population has shown from 1901 until 1971.

.....

.....

.....

.....

.....

.....[3]



**(b)** Niger, a country in Africa, has a population growth rate of nearly 3% per year.

**(i)** State **two** environmental problems that such a high population growth rate might cause in Niger.

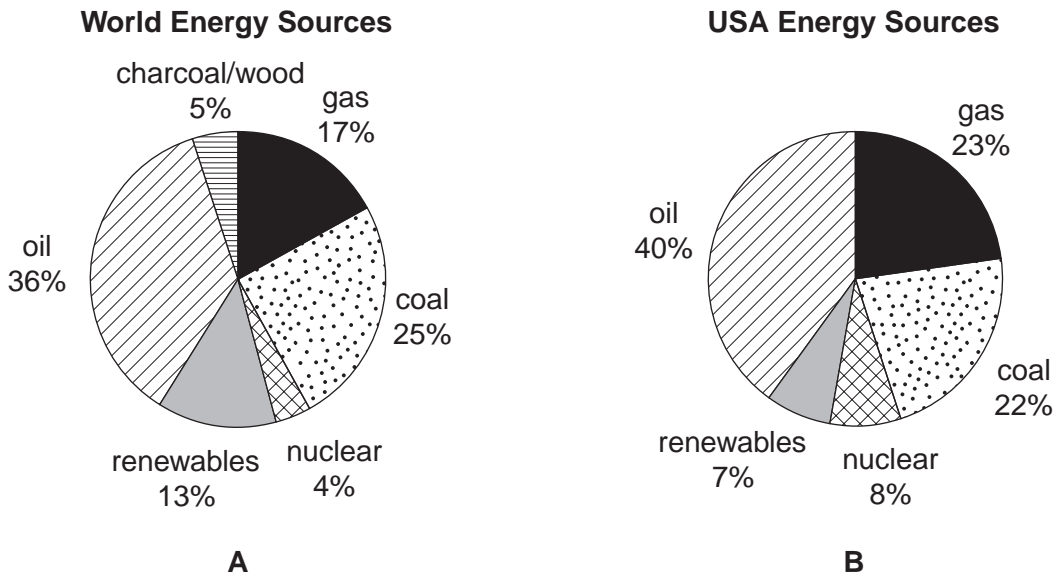
.....  
.....  
.....  
.....[2]

**(ii)** How can the governments in countries such as Niger reduce this high growth rate?

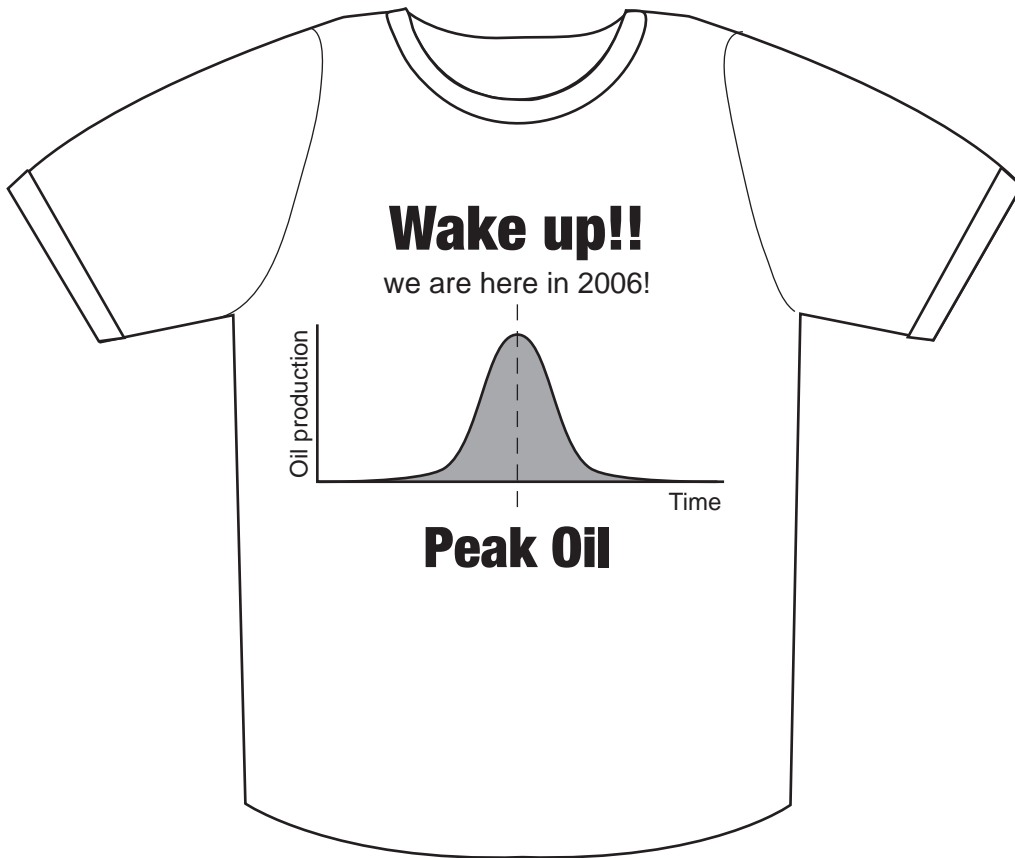
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.....  
.....[3]

[Total: 10]

5 The diagrams below show sources of energy used in the world, **A** and in the USA, **B**.



- (a) (i) What world energy source is **not** used by the USA?  
 .....[1]
- (ii) Which is the most used energy source in the World?  
 .....[1]
- (iii) Which is the least used energy source in the USA?  
 .....[1]
- (iv) Which source of energy do you expect to increase most in years to come?  
 .....[1]
- (v) Worldwide 13% of energy comes from renewables, and in the USA 7%.  
 Name **two** kinds of renewable energy that these figures might represent.  
 .....  
 .....  
 .....[2]



(b) Look at the picture above of a T-shirt advertising the organisation [www.oilcrisis.com](http://www.oilcrisis.com). The graph on the shirt shows oil production plotted against time and shows the present day with the words 'we are here'.

(i) Using the graph from the shirt, describe what will happen to world oil production in the future.

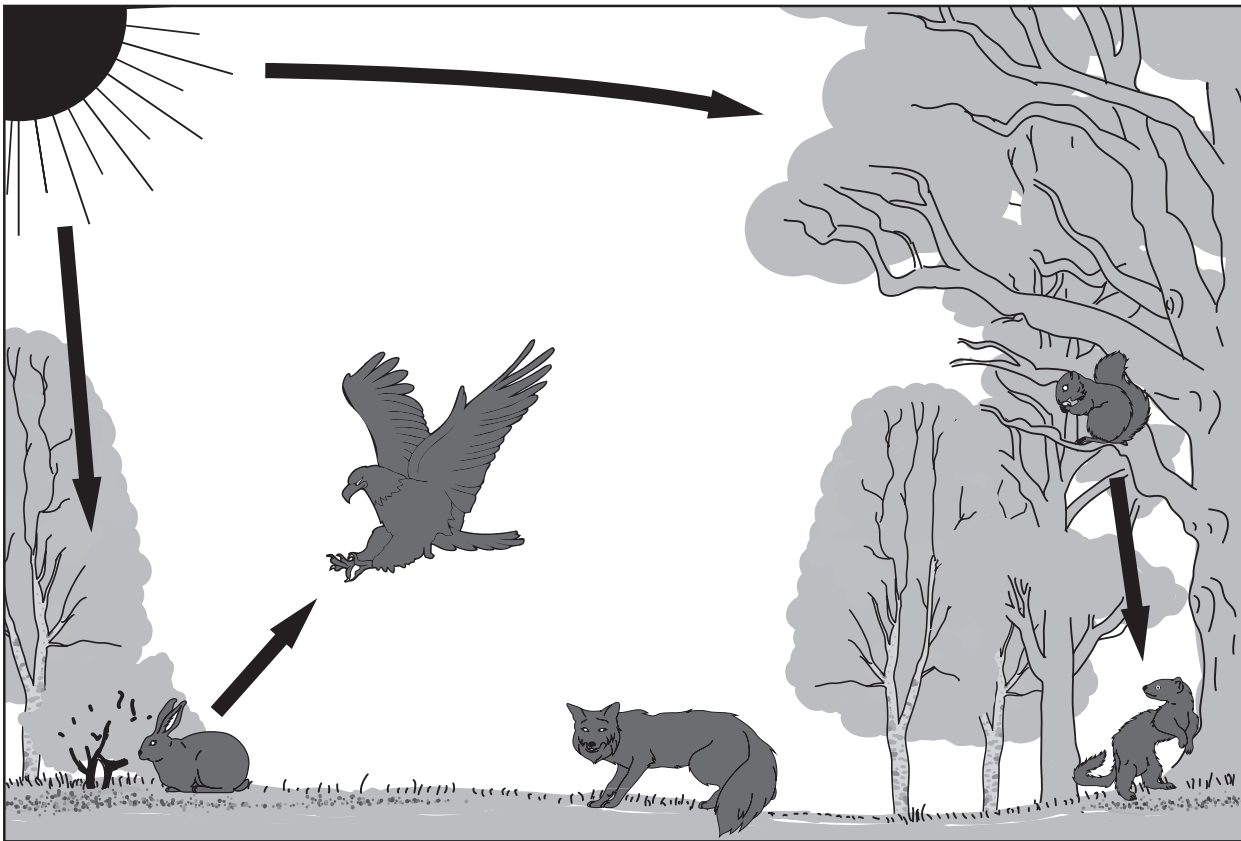
.....  
 .....[1]

(ii) An alternative to oil is nuclear energy. Describe **two** of the problems caused by the production of nuclear energy.

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

[Total: 10]

6 The picture below shows part of an Ecosystem.



(a) (i) Using the picture, and your own knowledge, explain **any two** of the following terms:

niche,  
habitat,  
energy flow.

.....

.....

.....

.....

.....

.....

.....

.....[4]

(ii) Look at the different shaded areas on the diagram, a key is given below

Key:  A  B  C

Say which letter represents:

Producers, .....

Consumers, .....

Solar energy. .... [3]

(b) The ecosystem shown contains trees. All around the world, trees are being cleared for various purposes.

State **three** reasons why trees might be cleared.

.....

.....

.....

.....

.....

.....

.....

.....[3]

[Total: 10]

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