

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

ENVIRONMENTAL MANAGEMENT

Paper 1



0680/01

October/November 2005

1 hour 30 minutes

Candidates answer on the Question Paper.
Additional Materials: Ruler (cm/mm)

Candidate
Name

Centre
Number

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Candidate
Number

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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 in the spaces provided on the Question Paper.
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.
The number of marks is given in brackets [] at the end of each question or part question.

DO NOT WRITE IN THE BARCODE.

DO NOT WRITE IN THE GREY AREAS BETWEEN THE PAGES.

If you have been given a label, look at the details. If any details are incorrect or missing, please fill in your correct details in the space given at the top of this page.

Stick your personal label here, if provided.

| FOR EXAMINER'S USE | |
|--------------------|--|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| TOTAL | |

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

- 1 (a) Study the information below, which refers to five areas of the world.

| Area | Life expectancy | Adult literacy (%) | Income per head (\$US) |
|--------------------------|-----------------|--------------------|------------------------|
| Middle East | 66 | 60 | 2200 |
| Industrialised countries | 76 | 98 | 20900 |
| Latin America | 69 | 88 | 3830 |
| South-East Asia | 66 | 88 | 1130 |
| Sub-Saharan Africa | 49 | 58 | 530 |

- (i) Which area has the lowest life expectancy?

.....[1]

- (ii) State the relationship between the adult literacy rate and income per head.

.....
[1]

- (iii) Name one area which seems to be an exception to the relationship you have stated in (a)(ii).

.....[1]

- (b) (i) Suggest **two** measures of the quality of life **not** mentioned in the table above.

.....

[2]

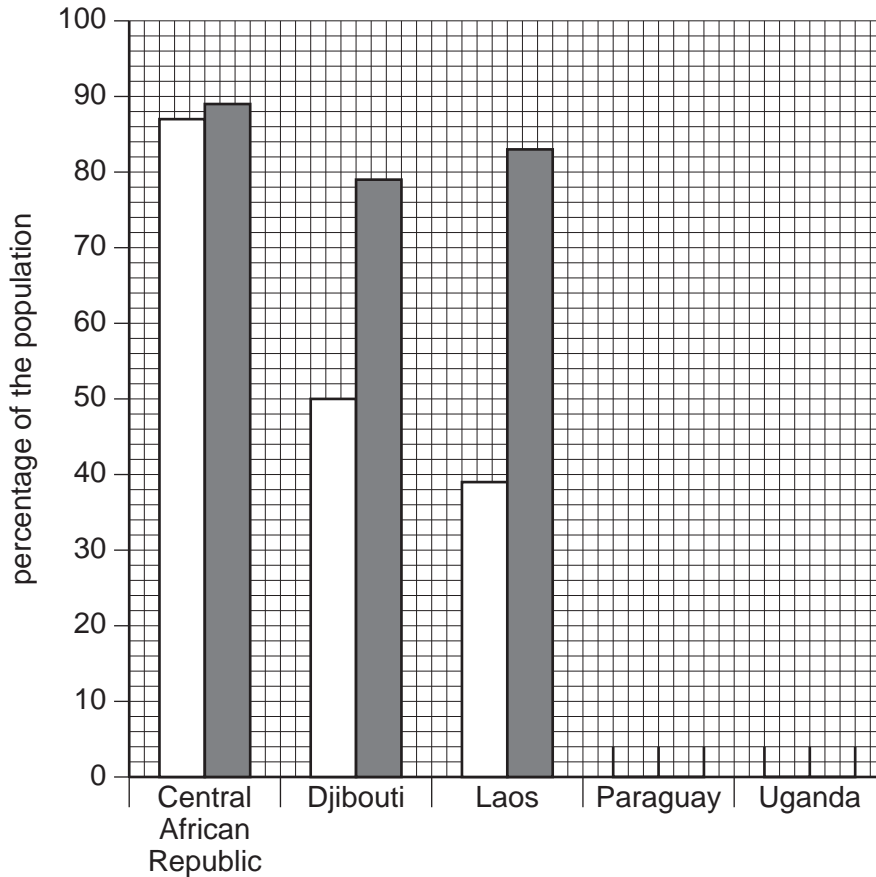
- (ii) Suggest how rapid population growth may affect quality of life.

.....

[2]

2 The graph below shows information about clean water supplies for five countries.

Selected countries: % of the population **without** access to clean water



Key:

- urban areas
- rural areas

| Country | % urban | % rural |
|----------|---------|---------|
| Paraguay | 35 | 93 |
| Uganda | 55 | 88 |

(a) (i) Complete the graph to show the figures for Paraguay and Uganda. [2]

(ii) What conclusion can you draw from the graph about access to clean water in rural and urban areas? Give reasons for your answer.

Conclusion

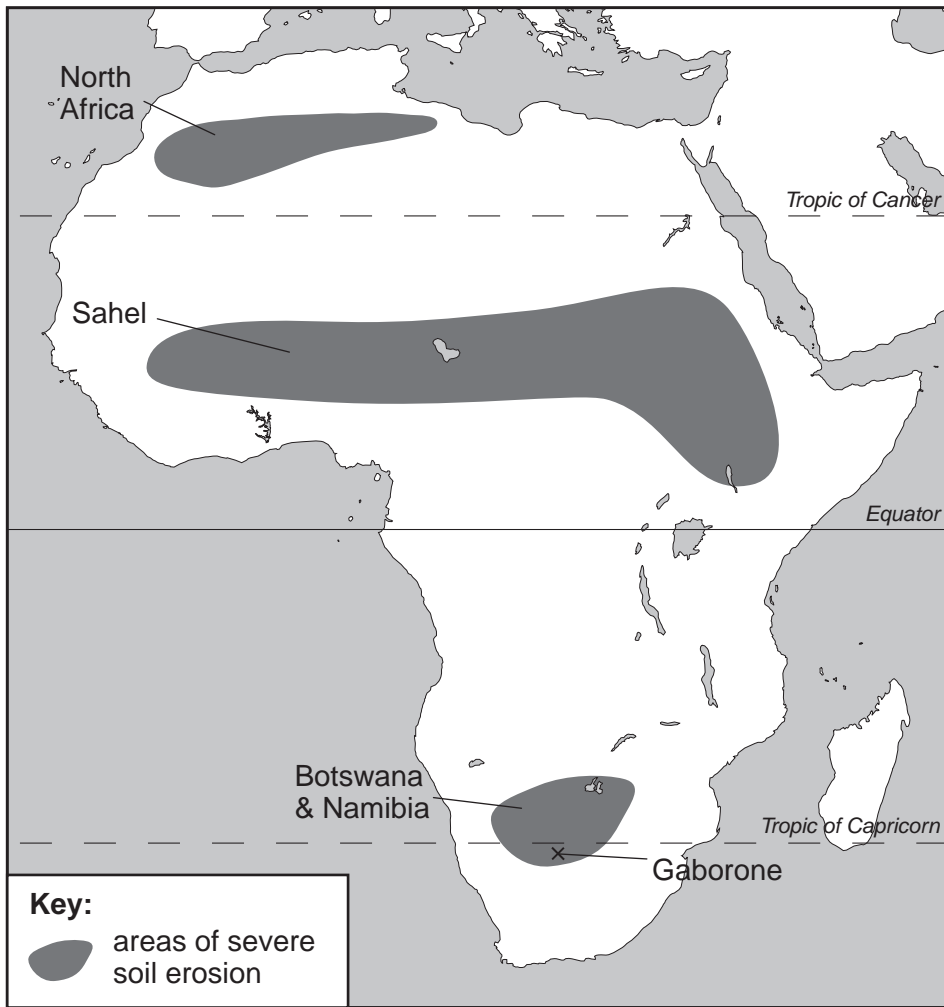
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Reasons

.....

.....[3]

3 The map below shows areas of Africa where there is severe soil erosion.



(a) (i) Describe the location of the main areas of severe soil erosion..

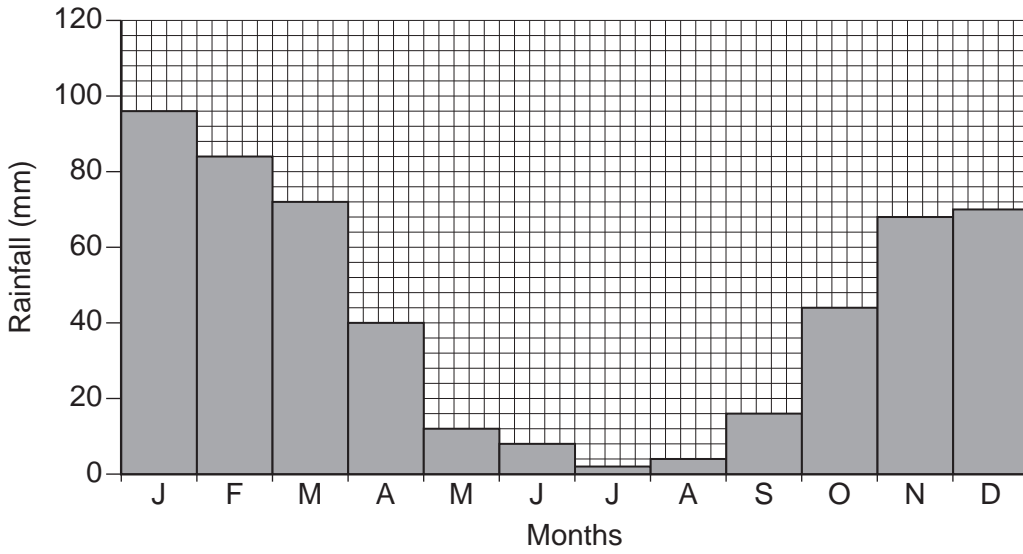
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.....

.....

.....[2]

(ii) The city of Gaborone is marked on the map. Below is a rainfall graph for the area around Gaborone.



Explain why severe soil erosion is likely to occur in this area in January and July.

January

.....

.....

.....

July

.....

.....

.....[3]

(b) Explain how **one** agricultural practice can increase the risk of soil erosion.

.....

.....

.....

.....[2]

(c) Suggest strategies which could help to reduce the problem of soil erosion.

.....

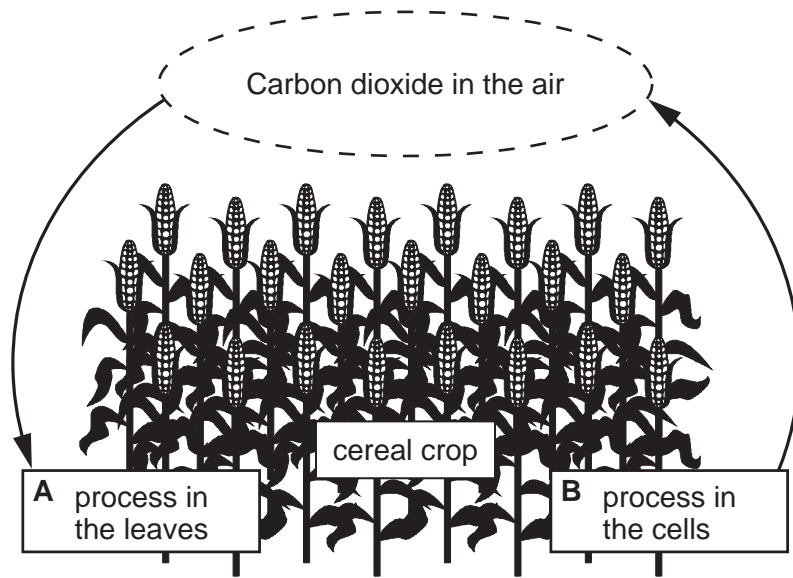
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.....[3]

4 Look at the diagram below. It shows the relationship between carbon dioxide in the air and a cereal crop.



(a) Give the names of the two processes **A** and **B**, shown on the diagram.

A is

B is[2]

(b) In a crop like this, the amount of carbon dioxide given out by process **B** is equal to the amount of carbon dioxide taken in by process **A**. The two are in balance.

(i) If more carbon dioxide was given out by process **B** than was taken in by process **A**, what would happen to the amount of carbon dioxide in the atmosphere?

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

(ii) What would be the result of what you have said in (b)(i) for world temperatures and world sea levels? Explain your answers

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

- (c) In order to grow a crop, such as the one shown in the diagram above, trees must have been removed from the land. This is called DEFORESTATION.

State **one** possible effect of deforestation on the wildlife of an area. How might this effect on wildlife be reduced?

.....

.....

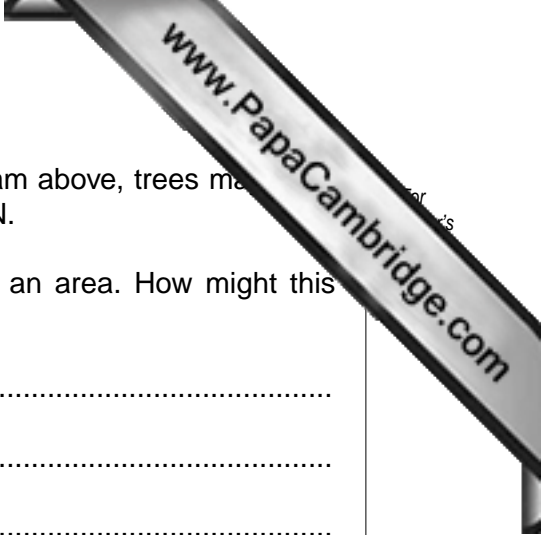
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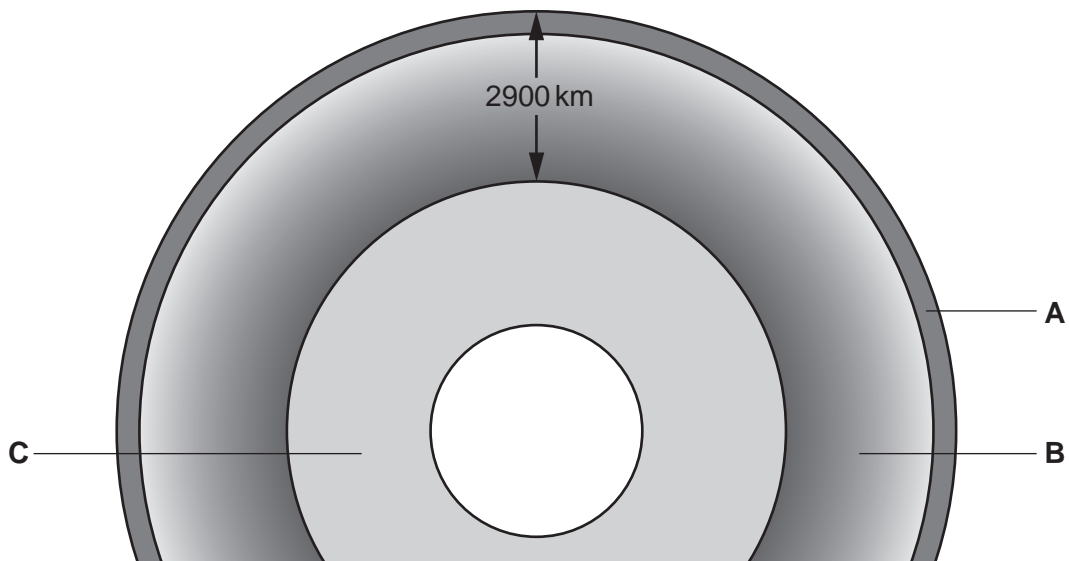
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.....[3]

Total [10]



5 The diagram below shows a section through the Earth.



(a) (i) Name the parts of the Earth labelled **A**, **B** and **C**.

A

B

C[3]

(ii) In which of the labelled parts would fossil fuels and minerals be found?

.....[1]

(iii) Name **two** fossil fuels.

.....

.....[1]

(b) Because of environmental problems caused by fossil fuels, alternative energy sources are being developed.

(i) Describe **one** environmental problem caused by the use of fossil fuel.

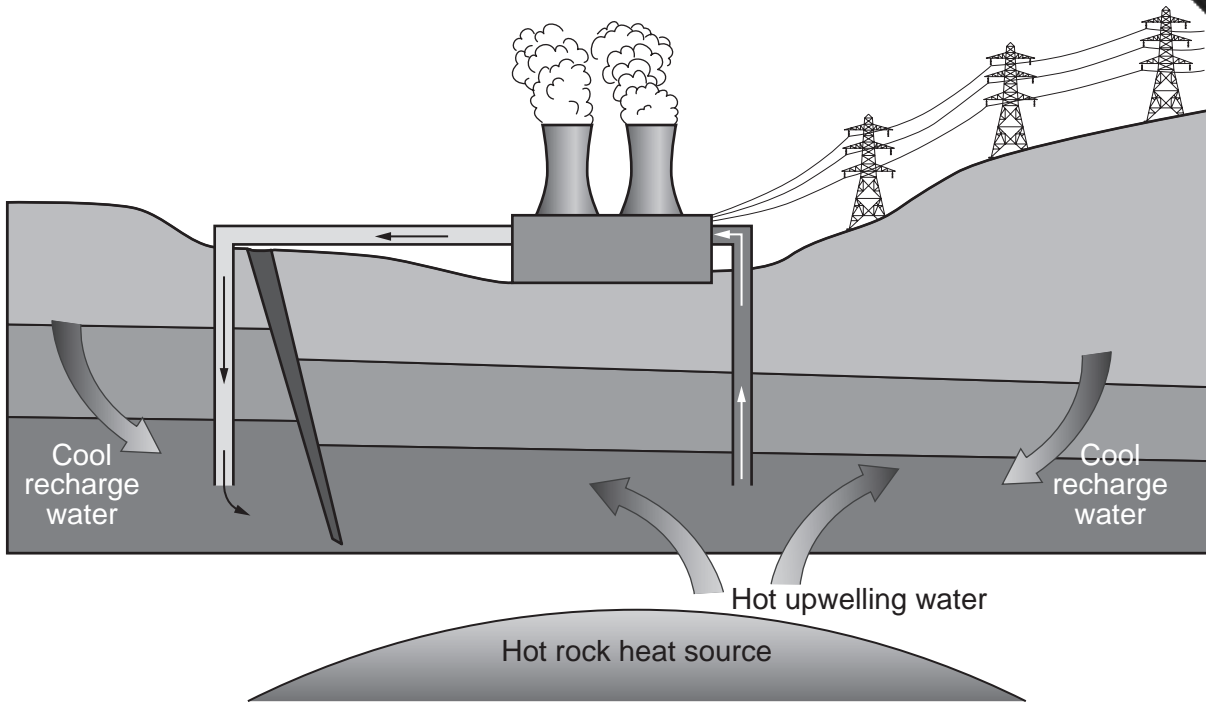
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.....[2]

(ii) The diagram below shows one way of obtaining energy from an alternative



Give the name of this source and describe how energy is being obtained.

.....

.....

.....

.....

.....

.....

[3]

Total [10]



6 The article below concerns the impact of tourism in Goa (India).

“By the year 2000 more than 5 million tourists had visited Goa. Tourism Concern says Goa’s ‘fragile ecology and unique culture are being destroyed by hotel owners eager to cash in on the growing numbers of tourists’. Hotels have been built illegally on the beach, beaches have been closed to locals, threatened mangrove and wet land areas have been unlawfully reclaimed, trees felled and dunes flattened. Sewage is being discharged on to beaches and is leaking into rice fields. Sand has been quarried from the beaches.”

(a) State **three** ways in which Goa’s environment is being damaged by tourist development.

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

(b) (i) Explain what is meant by the term *ecotourism*.

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

(ii) How could the authorities in Goa continue to attract tourists whilst at the same time preserving the environment?

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



(c) Laws and conservation groups can help to protect nature. Describe the role of the following in protecting nature.

- WWF
- IUCN
- CITES
- UNEP

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.....

.....

.....[3]

Total [10]

Total for paper [60]

Copyright Acknowledgements:

- Question 3 Diagram © D. Waugh and T. Bushell, *New Geography*; Nelson Thornes, 2002.
Question 5 Taken from website, <http://geosun1.sjsu.edu/~dreed/images/exer2/earth-layers.GIF>

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