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| Centre Number | Candidate Number | Name |
|---------------|------------------|------|

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

**ENVIRONMENTAL MANAGEMENT** **0680/01**

Paper 1 May/June 2004

**1 hour 30 minutes**

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

**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.

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.

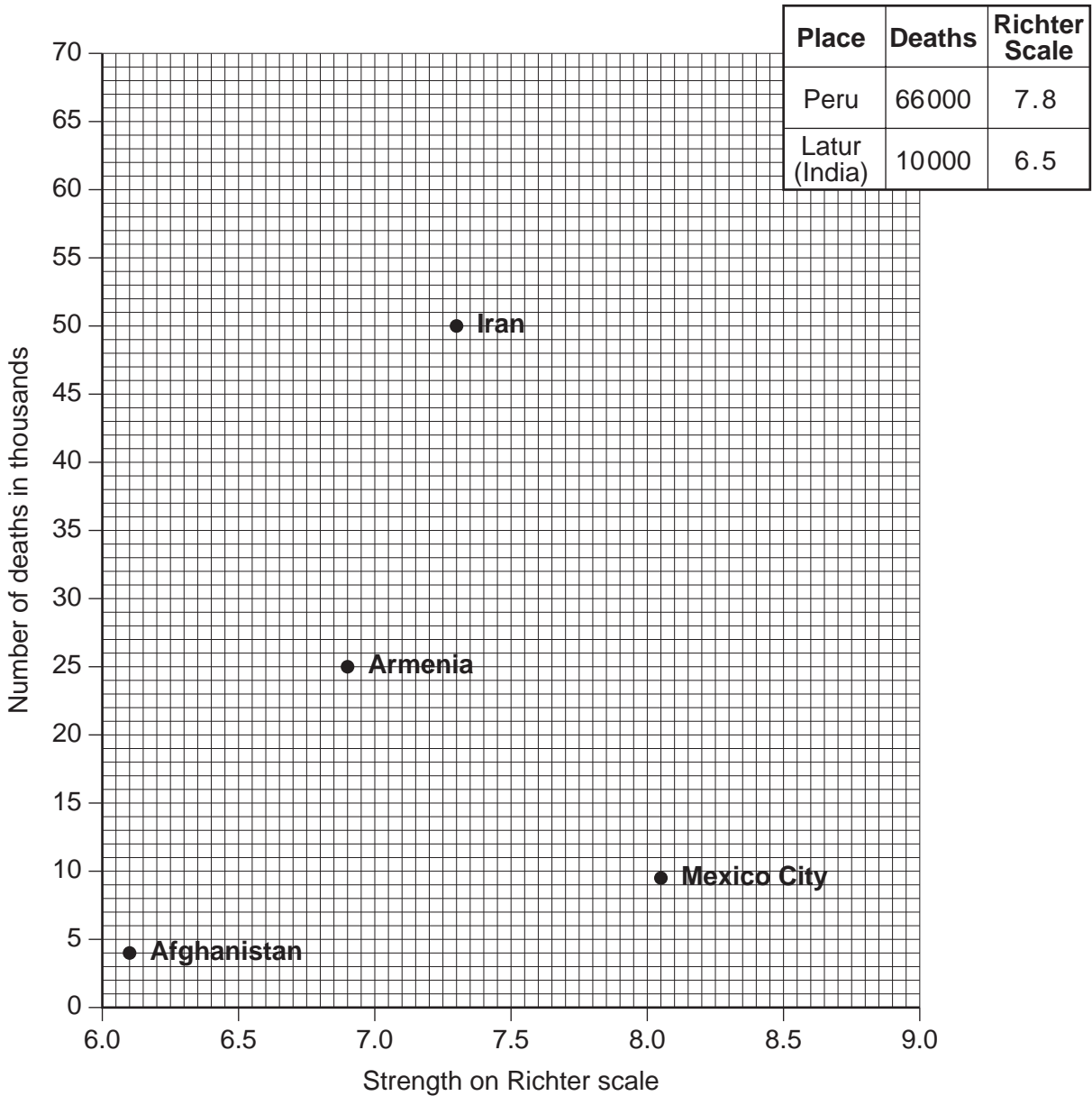
Stick your personal label here, if provided.

| FOR EXAMINER'S USE |  |
|--------------------|--|
| 1                  |  |
| 2                  |  |
| 3                  |  |
| 4                  |  |
| 5                  |  |
| 6                  |  |
| <b>TOTAL</b>       |  |

1 (a) (i) What is an earthquake?

.....[1]

(ii) The graph below shows information about four major earthquakes which have occurred since 1970. Plot the information given for the Latur and Peru earthquakes on the scattergraph.



[2]

(iii) Which earthquake caused the greatest loss of life?

.....[1]

(iv) Which earthquake was the strongest?

.....[1]

**(b)** The strongest earthquakes do not always cause the greatest loss of life.  
Give **two** reasons for this.

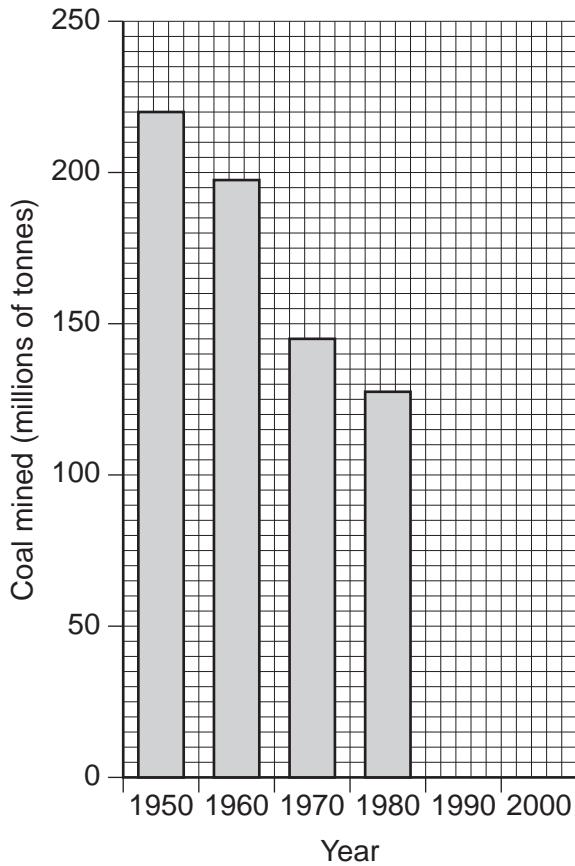
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**(c)** Describe strategies that governments might adopt to help people prepare for an earthquake.

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.....[3]

Total [10]

- 2 (a) (i) The information below shows coal production for the United Kingdom between 1950 and 2000. Complete the graph by plotting the figures for 1990 and 2000.



| Year | Amount of coal mined (millions of tonnes) |
|------|---|
| 1990 | 81  |
| 2000 | 43  |

[2]

- (ii) Between which years was the greatest decrease in coal production?  
Circle the correct answer.

1950-60      1960-70      1970-80      1980-90      1990-2000      [1]

- (iii) Calculate the decrease in coal production for the period you have chosen.

.....million tonnes [1]

- (b) (i) Suggest **two** reasons for the decrease of coal mining in a country.

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

(ii) Name **two** alternative forms of energy that are renewable.

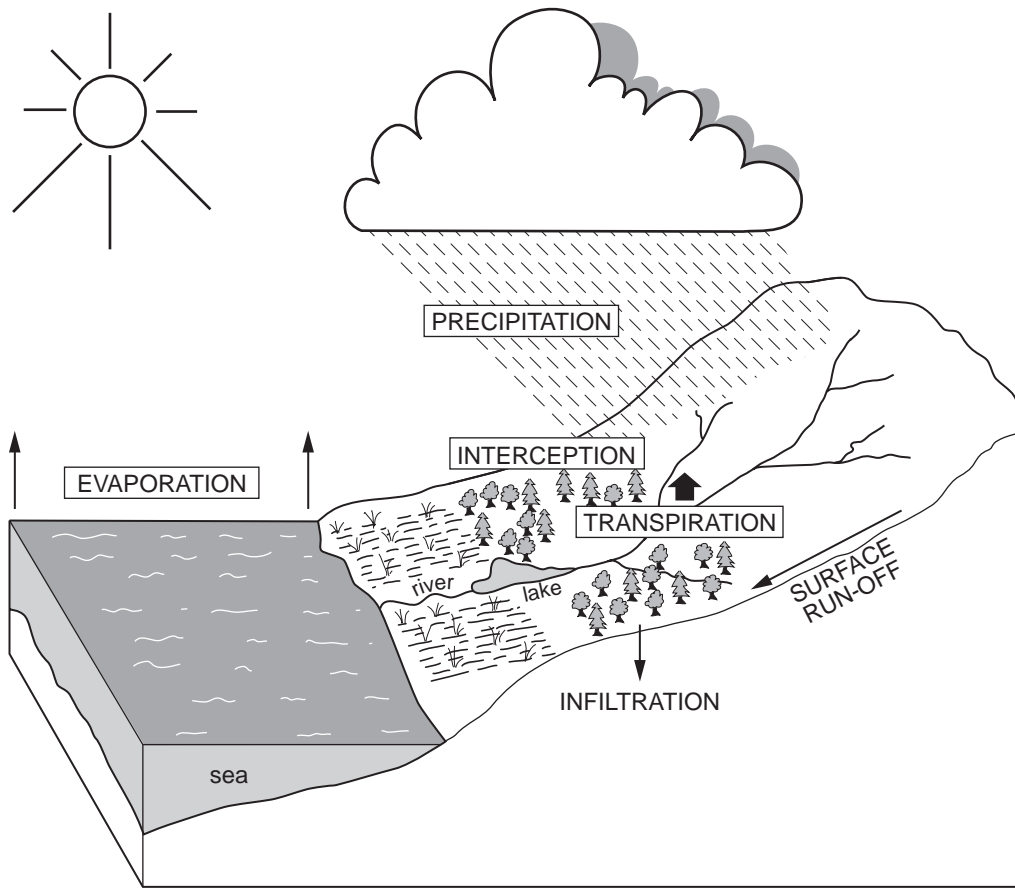
.....[1]

(c) Suggest strategies that would help to conserve non-renewable energy sources.

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

Total [10]

3 The diagram below shows some features of the water cycle.



(a) (i) Which **two** processes refer to the transfer of water to the air?

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

(ii) What causes these processes to occur?

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

(b) What is the difference between *infiltration* and *surface run-off* ?

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

(c) What is interception, and how is it changed by deforestation?

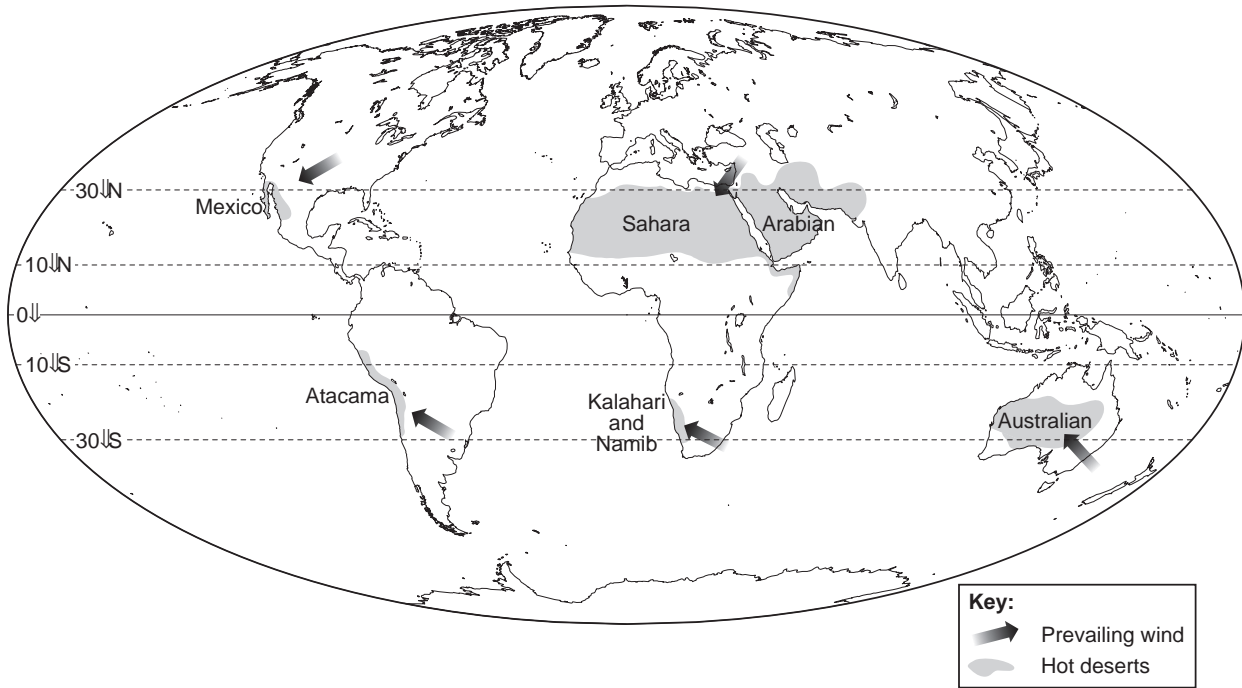
.....  
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.....[3]

(d) Explain how building towns and cities increases the risk of flooding.

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

Total [10]

4 (a) (i) Look at the world map below. Describe where areas of hot desert are located.



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.....

.....

.....

.....[2]

(ii) Explain why hot desert areas are difficult to farm.

.....

.....

.....

.....

.....[2]

(b) Explain why solar power is a suitable energy source in areas with hot desert climates.

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.....

.....[2]



(c) (i) Name **one** human activity which may lead to an increased level of carbon dioxide in the atmosphere.

.....[1]

(ii) Suggest ways in which the amount of carbon dioxide in the atmosphere may be reduced.

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

Total [10]

5 The table below shows information for six countries which have areas of tropical rain forests.

| Country                           | Remaining forested area (km <sup>2</sup> ) | Forested area lost per year (km <sup>2</sup> ) |
|-----------------------------------|--|--|
| Colombia                          | 464 000                                    | 9 000  |
| Ivory Coast                       | 45 000                                     | 5 000  |
| Nigeria                           | 60 000                                     | 4 000  |
| Thailand                          | 92 000                                     | 4 000  |
| Venezuela                         | 319 000                                    | 3 000  |
| Democractic Republic of the Congo | 1 058 000                                  | 4 000  |

(a) (i) Which country has the largest area of forest remaining?  
 .....[1]

(ii) Which country is least at risk from losing all its rain forests?  
 .....[1]

(iii) At present rates of removal, which country will be the first to lose all its rain forests, and in how many years?  
 Country.....  
 Number of years.....[2]

(b) Give **two** reasons why tropical rain forests are being cut down.  
 .....  
 .....  
 .....  
 .....[2]

(c) State **two** environmental changes caused by rain forest destruction.  
 .....  
 .....  
 .....  
 .....[2]

(d) Describe **one** sustainable way of managing areas of tropical rain forests.

.....

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.....[2]

Total [10]

6 (a) The table gives information about population in three countries. Complete the table.

| Country | Birth Rate<br>(per thousand) | Death Rate<br>(per thousand) | Natural Increase<br>% |
|---------|------------------------------|------------------------------|-----------------------|
| Niger   | 51                           | 20                           | 3.1                   |
| Cuba    | 19                           | 8                            |                       |
| Finland | 12                           |                              | 0.2                   |

[2]

(b) (i) What is meant by:

infant mortality; .....

.....

life expectancy? .....

.....[2]

(ii) Explain why life expectancy is usually lower in developing countries than in developed countries.

.....

.....

.....

.....[2]

(iii) Give **two** reasons why birth rates are usually higher in developing countries than in developed countries.

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.....[2]

(c) Give **two** reasons why death rates might decrease in a country.

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.....

.....

.....[2]

Total [10]

**Total for paper [60]**