UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

8990278853

ENVIRONMENTAL MANAGEMENT **0680/13**

Paper 1 **May/June 2010**

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.
DO **NOT** WRITE IN ANY BARCODES.

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.

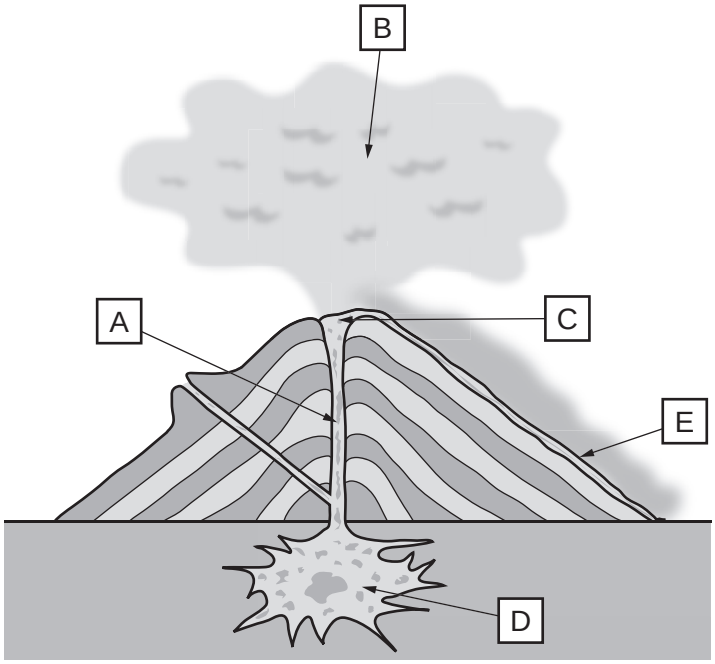
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1 Look at the diagram below of a volcano.

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(a) (i) Put the correct letter next to each of the features named below:

magma chamber .....

lava .....

crater .....

ash ..... [2]

(ii) Give the letter of the feature which will improve soil fertility in

1. the short term (a few years)
2. the long term (hundreds of years)

1. .....

2. ..... [2]

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(b) Volcanoes and earthquakes are due to tectonic activity. They both cause problems but fewer people are killed by volcanoes than earthquakes.

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(i) Give **three** ways in which people might be killed by volcanoes.

.....

.....

.....

.....

.....

.....[3]

(ii) Why are more people killed during earthquakes than during volcanic eruptions?

.....

.....

.....

.....[2]

(iii) State **one** strategy for reducing loss of life in an earthquake.

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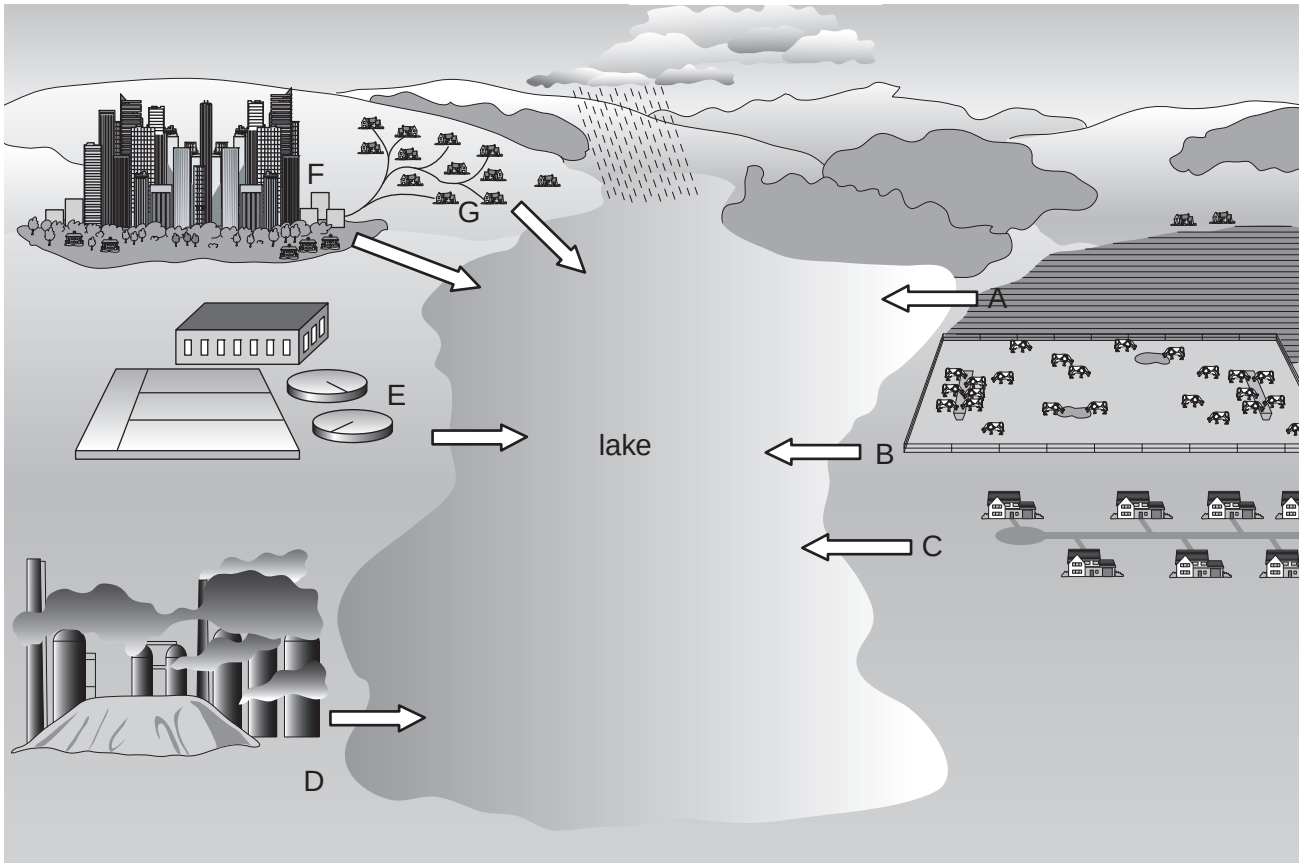
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[Turn over

2 Look at the diagram below which shows some sources of water pollution.

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(a) (i) A–G on the diagram are places where water pollutants are produced. Match each letter to one of the three main sources of pollution named below.

Domestic .....

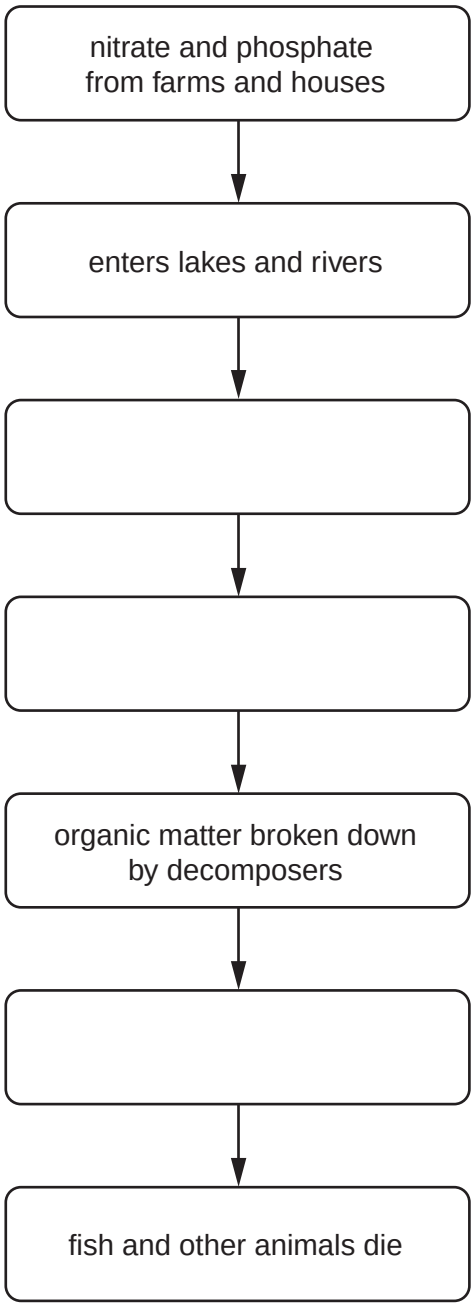
Agricultural .....

Industrial ..... [3]

(ii) The effects of plant minerals in water are summarised in the following flow chart.

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Complete the flow chart.



[3]

(b) Describe ways in which water pollution might be reduced or stopped.

.....

.....

.....

.....

.....

.....[4]

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3 **(a)** Read the following statement about the objectives of the Convention on Biological Diversity established in 1993.

Our objectives are

- the conservation of biodiversity,
- the sustainable use of its components,
- the fair sharing of the benefits of using genetic resources.

(i) State what *biodiversity* means.

.....

.....

.....[2]

(ii) If global warming makes an area drier, farmers might need to find a strain of wheat that will still grow there.

How might biodiversity and genetic resources, referred to above, help with this?

.....

.....

.....

.....[2]

(b) One threat to habitats and therefore biodiversity is tourism.

(i) State **two** ways in which tourism can damage or destroy habitats.

.....

.....

.....

.....[2]

(ii) Under some circumstances ecotourism can bring benefits both to the environment and to local people.

Describe **one** way in which ecotourism can help

1. the environment .....

.....

2. local people .....

.....[2]

(c) Another way to protect habitats and biodiversity is by sustainable management. Describe how forestry can be managed sustainably.

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..... [2]

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4 **(a)** Plants have a number of needs for growth.

water carbon dioxide minerals (such as nitrate and phosphate)

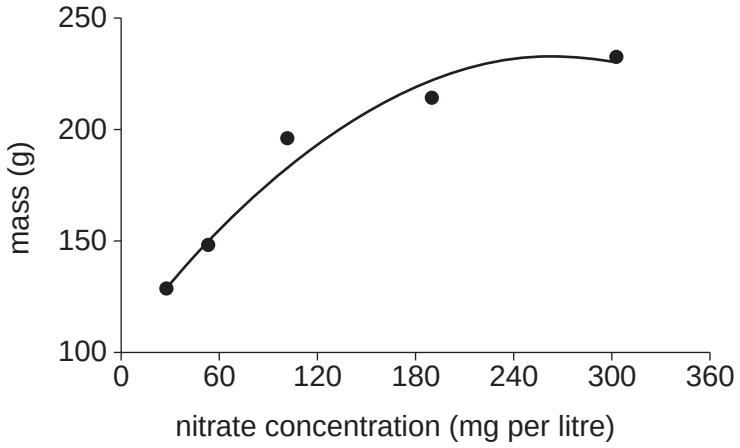
These are obtained from either the soil or the atmosphere.

(i) Show where each of these needs comes from by completing the table below. [2]

source	needs
soil	
atmosphere	

(ii) In an experiment, different concentrations of nitrate were supplied to lettuces in different amounts. The mass (weight of lettuces) was measured.

The results are shown on the graph.



Describe the effects of nitrate concentration on the growth of lettuces.

.....

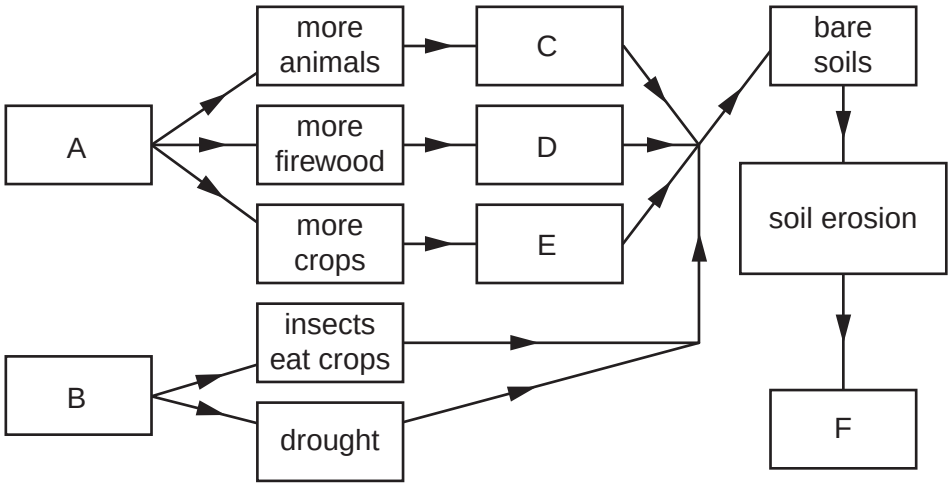
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..... [2]

(b) Look at the diagram below showing some of the causes and one consequence of soil erosion.

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(i) Match the following words to the letters in the diagram:

overcultivation .....

natural hazards .....

more people .....

desertification .....

deforestation .....

overgrazing ..... [3]

(ii) Describe how soil erosion can be slowed down or stopped.

.....

.....

.....

.....[3]

5 **(a)** Look at the map below which shows the world distribution of major ocean fishing grounds.

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(i) Describe the distribution of major fishing grounds shown on the map.

.....

.....

..... [2]

(ii) The fishing ground at **A** is on a continental shelf. Why are continental shelves often major fishing grounds?

.....

.....

.....

..... [2]

(iii) **B** is not on a continental shelf. Why is **B** a major fishing ground?

.....

.....

.....

..... [2]

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(iv) Explain why the fisheries at **B** collapse in some years.

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.....

.....

.....

.....[2]

(b) Some fisheries have been overfished. State **one** reason for overfishing and explain how action might be taken to reduce the problem.

.....

.....

.....

.....[2]

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6 **(a)** The atmosphere contains a number of gases forming a mixture called air. Nitrogen is the most abundant, about 78% of the atmosphere. The minor components, which include argon, carbon dioxide, water and ozone, make up another 1%.

Complete the table below showing some of the gases in the air and some facts about them.

gas	percentage in atmosphere	importance to life on Earth including people
oxygen		used in breathing
carbon dioxide	0.03	
water vapour	variable	
ozone	tiny	

[4]

(b) Human activities can alter the composition of the atmosphere in many ways.

(i) State **one** way in which human activity might

1. add to the amount of a gas naturally in the atmosphere

.....

2. reduce the amount of a gas in the atmosphere

.....

3. add a gas to the atmosphere which was not naturally there

.....[3]

(ii) Name the gas whose levels in the atmosphere would decrease if many trees were planted.

.....[1]

(c) Wind can be harnessed as a source of energy. The largest and least controversial wind turbines are offshore. Explain why.

.....

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.....[2]

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