UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

6877635692

ENVIRONMENTAL MANAGEMENT **0680/12**

Paper 1 **May/June 2012**

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.

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

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1 Look at the photograph below showing two power stations.

For Examiner's Use



(a) (i) Name the energy source used at **A**.

.....[1]

(ii) Suggest **one** reason why this location was chosen.

.....

.....[1]

(iii) **B** is a nuclear power station. Nuclear energy does not contribute to acid rain or global warming. Name **one** source of energy which does contribute to **both** of these problems.

.....[1]

(iv) Describe **two** problems with nuclear energy.

.....

.....

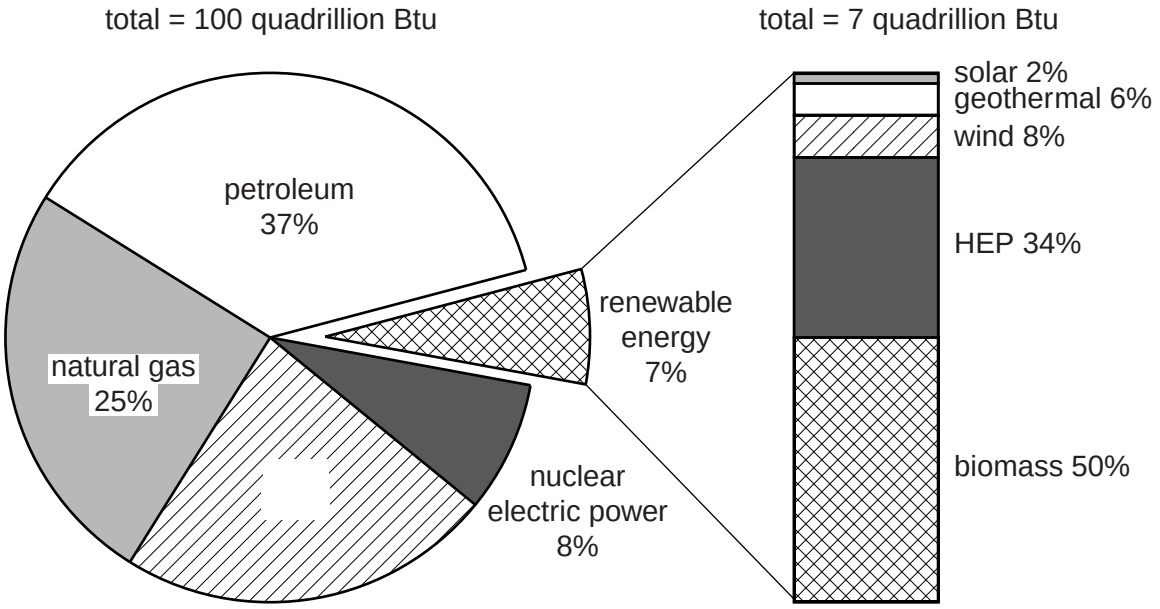
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.....[2]

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(b) (i) One form of renewable energy that is growing in importance is biomass. The pie graph shows the breakdown of energy use in the USA at present.

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What percentage of **all** USA energy does biomass provide? Show your working.

……% [2]

(ii) Renewable energy is one alternative to burning fossil fuels, which cause pollution.

What changes can people make to their daily lives that will reduce the use of fossil fuels?

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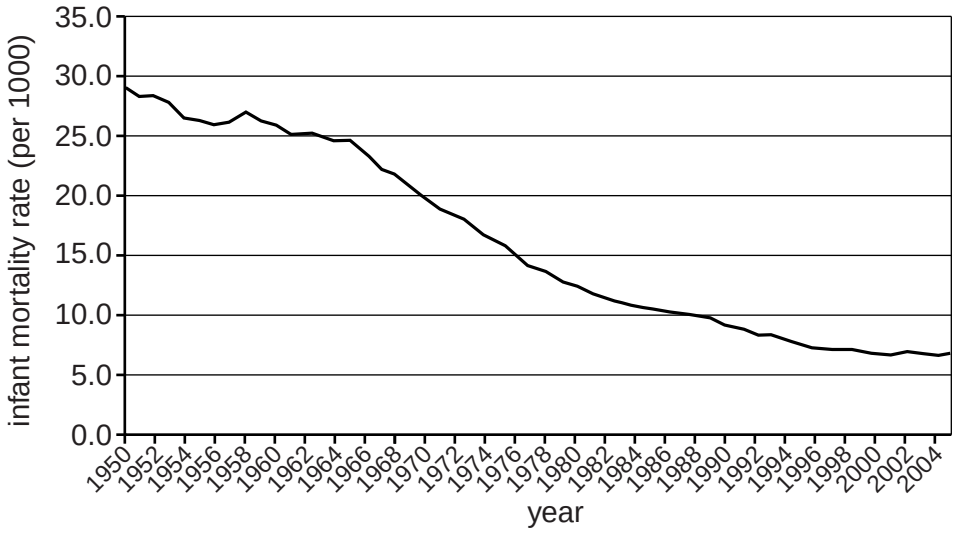
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.....[3]

2 **(a)** Measures of human well-being include infant mortality and life expectancy.

For Examiner's Use

Look at the graph below which shows how infant mortality changed in the USA between 1950 and 2005.



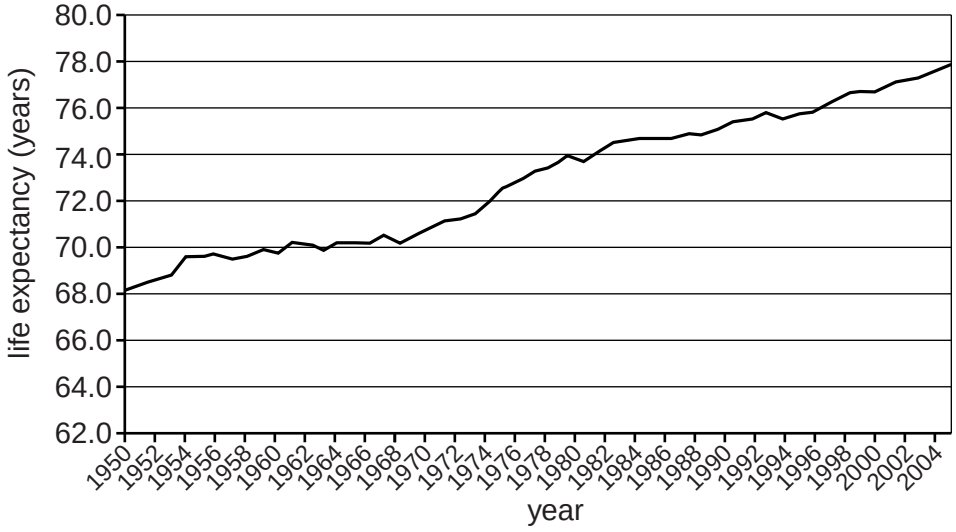
(i) Describe the changes shown by the graph.

.....

.....

..... [2]

Look at this graph which shows changes in life expectancy in the USA over the same period.



(ii) How does the trend for life expectancy differ from that for infant mortality?

.....

.....

..... [2]

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(b) (i) Human migration has occurred throughout history.

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People move because they do not like where they are (PUSH FACTORS) or because they think somewhere else is better (PULL FACTORS).

Listed below are some push and pull factors.

A Not enough jobs

B Attractive climate

C Poor medical care

D Desertification

E Better educational opportunities

F More services and amenities

G Drought

H Better job opportunities

I Political freedom

J High levels of pollution

K Poor housing

L War

Write the letter for each factor under the correct heading in the table below:

PUSH	PULL

[4]

(ii) People may move from one country to another or within a country. Movements within one country are usually between urban and rural areas.

In which direction is the movement of people happening in most developing countries?

.....

.....

What name is given to the process?

.....[2]

For Examiner's Use

3 (a) (i) Over 99% of the atmosphere consists of oxygen, carbon dioxide and nitrogen. Which of these is a pollutant?

.....[1]

(ii) Other pollutants enter the atmosphere as a result of human activity. The list below shows some of these and some of the activities. Link each pollutant to the correct activity by writing one letter from A to E next to the appropriate activity.

The letters may be used once, more than once or not at all.

Pollutant

A CFCs

B methane

C sulfur dioxide

D oxides of nitrogen

E lead

Activity creating pollutant

burning coal or gas …….

using aerosols …….

growing rice …….

burning refined petroleum ……. [2]

(iii) Which pollutant causes a reduction in the thickness of the ozone layer in the atmosphere?

.....[1]

(iv) Give **two** sources of this pollutant.

.....

.....[1]

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(b) (i) How might the ozone hole affect the environment and humans?

For Examiner's Use

.....

.....

.....

.....

.....[3]

(ii) Describe strategies that have been used to reduce the problem of the ozone hole.

.....

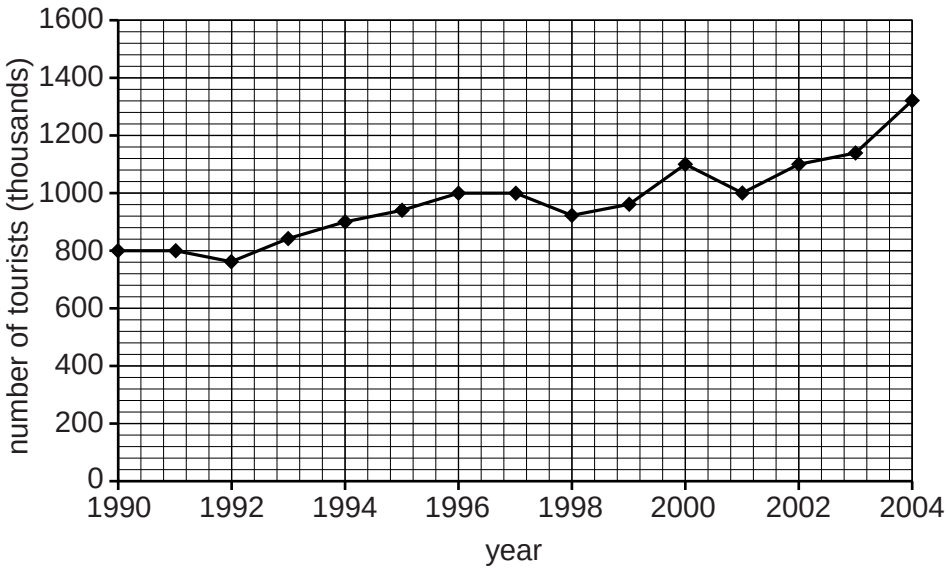
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.....

.....[2]

4 Study the graph below showing changes in tourism in Kenya between 1990 and 2004.

For Examiner's Use



(a) (i) What is the percentage increase in tourism to Kenya between 1990 and 2004? Show your working.

……% [2]

(ii) Suggest some advantages of this increase in tourism in Kenya.

.....

.....

.....

.....[3]

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(b) (i) Some of the tourists visiting Kenya are ecotourists. Some of the features of ecotourism are listed below.

Wildlife is protected.

Masai tribespeople, employed as guides, share in the benefits of the tourist trade.

Ways of life are maintained.

National parks are set up.

Describe how these features show ecotourism.

.....

.....

.....

.....

.....[3]

(ii) In Kenya there is great potential for ecotourism which will benefit the country. There are large game reserves where the 'Big 5' animals (elephant, lion, leopard, buffalo, rhino) are protected for their tourist value. Explain why there is a conflict between local people and tourists about protecting these animals.

.....

.....

.....

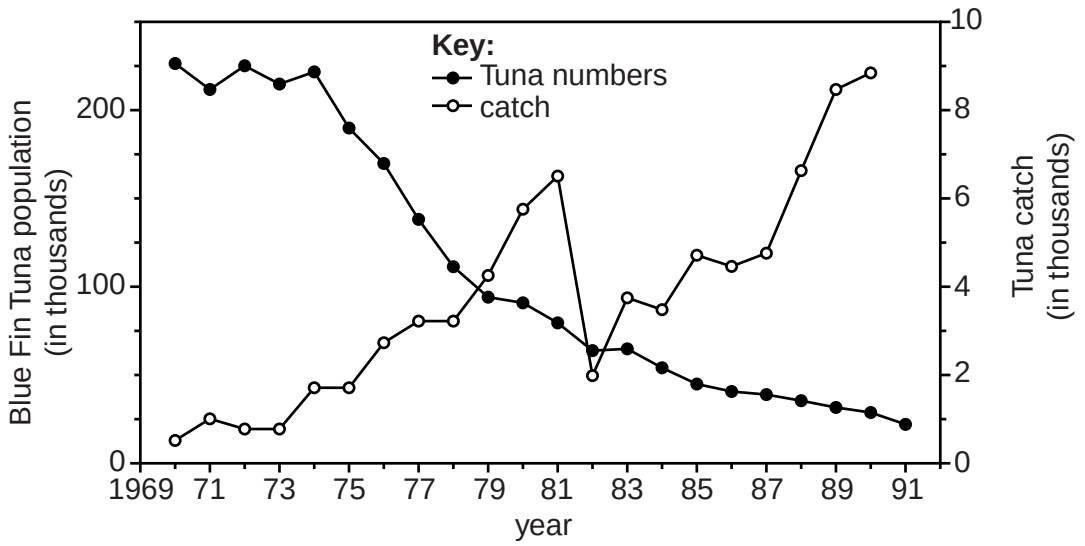
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.....[2]

5 Look at the graph showing changes in the population of Bluefin Tuna in the Western Atlantic from 1970 to 1991 when fishing became uneconomic.

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(a) (i) In which year did tuna population numbers start to decline?

.....[1]

(ii) Suggest **one** possible cause of this decline.

.....

.....

.....[1]

(iii) What strategies might have stopped this decline?

.....

.....

.....[3]

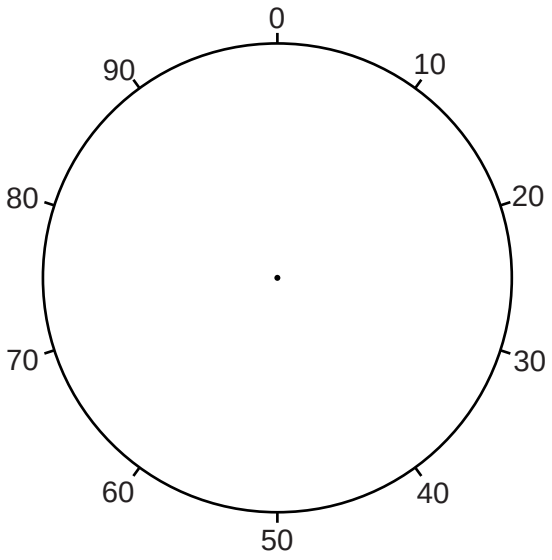
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(b) (i) The table shows the sources of marine pollution:

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source of marine pollution	percentage of total
atmosphere	33
transport	12
dumping	10
offshore oil and gas	1
runoff from land	44

Use the data in the table to complete the pie graph and the key below:



key:

[3]

(ii) Describe how pollution from marine transport might be reduced.

.....

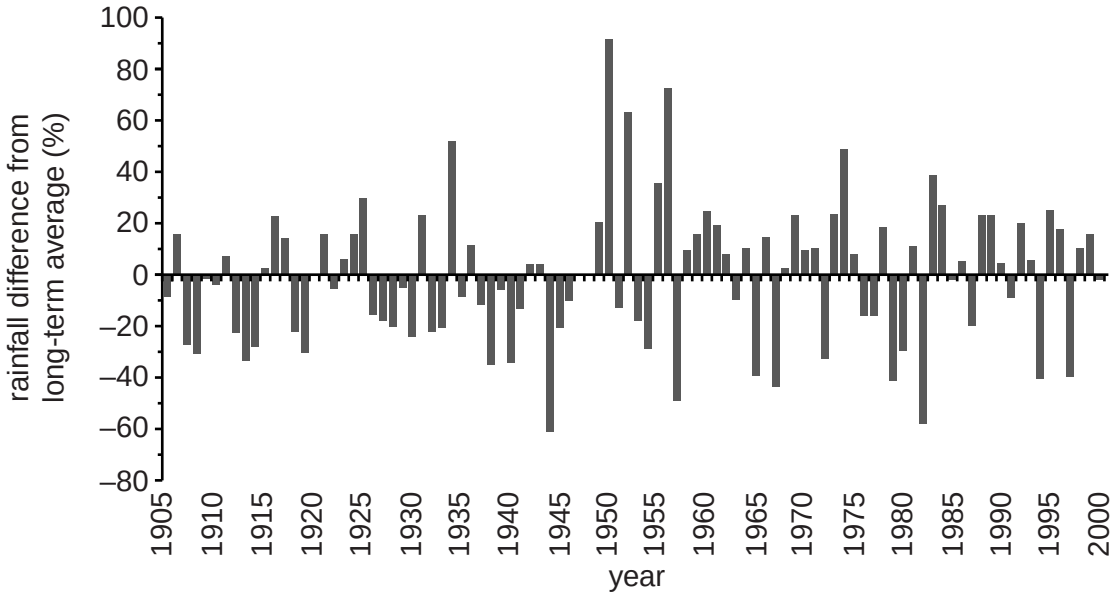
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6 The graph below shows variation in precipitation over a 95 year period at a weather station in Australia.

For Examiner's Use



0 = long term average precipitation

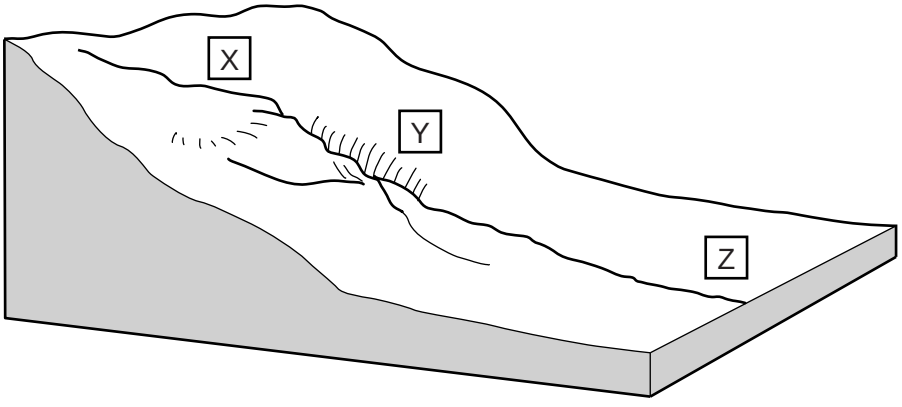
(a) **(i)** In which ten year period was it much wetter than average?

.....[1]

(ii) How long was the longest continuous period of below average rainfall?

.....[1]

(b) Fluctuations in rainfall can be balanced with fluctuations in demand, by storage and release of water. This can be done by building dams across rivers. On the diagram, X, Y and Z show three possible sites for a dam.



(i) Which site is the best?

.....[1]

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(ii) Explain why the site you have chosen is better than the other two.

.....

.....

.....

.....

.....

.....[4]

(c) Water is essential for life, but in some parts of the world it can carry diseases. Complete the table below listing water-related diseases.

disease	type
Bilharzia	
	water-borne
Malaria	

[3]

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