UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE NAME

CENTRE NUMBER | | | | | |

CANDIDATE NUMBER | | | | |

ENVIRONMENTAL MANAGEMENT **0680/02**

Paper 2 **May/June 2008**

1 hour 45 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 **both** questions.

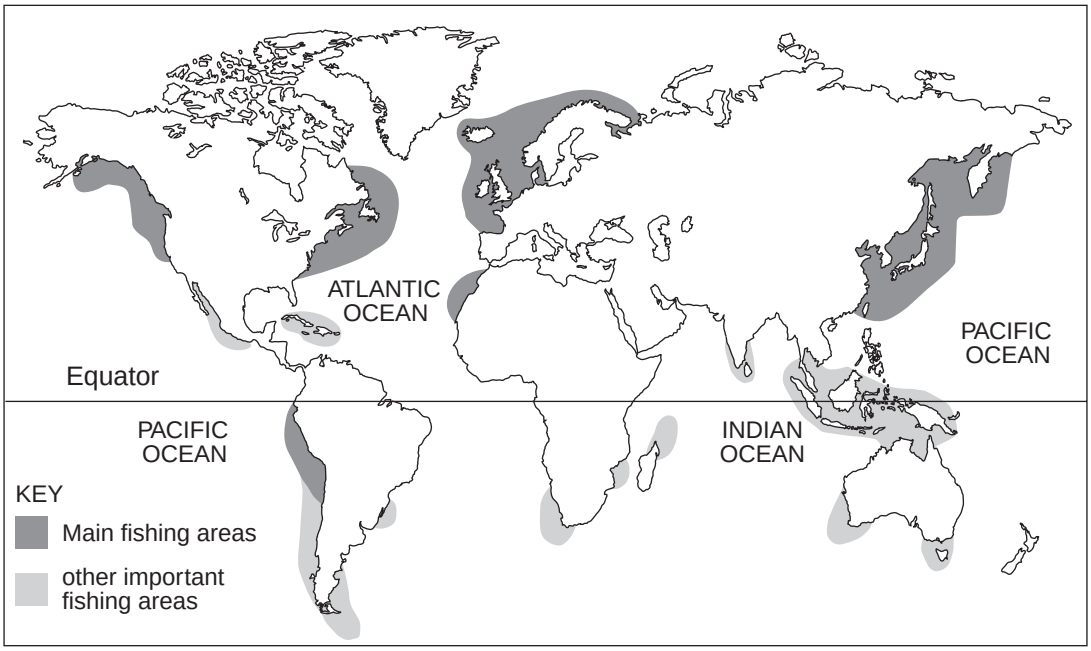
At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.

For Examiner's Use	
1	
2	
Total	

This document consists of **17** printed pages and **3** blank pages.

1 **(a)** Look at the world map showing the main and other important ocean fishing area

World Ocean Fisheries



(i) Describe where the **main** fishing areas are located.

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.....[3]

(ii) State one similarity and one difference between the locations of the main and other important fishing areas.

Similarity .....

.....

Difference .....

.....[2]

(b) Three factors to explain the locations of major ocean fisheries are listed below.

- wide continental shelf
- presence of ocean currents
- densely populated coastal areas nearby

(i) How many of these factors are natural (physical) factors?

.....[1]

(ii) Choose **two** of the factors. For each one, explain its importance for major ocean fisheries.

Name of factor .....

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Name of factor .....

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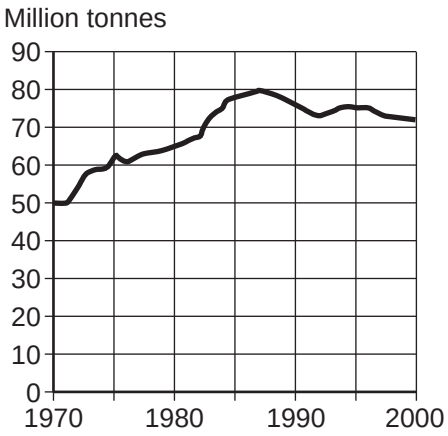
.....[4]

(c) Look at the graph showing total world ocean fish catches.

World Ocean Fish Catches



(i) State the amount of fish caught in 1970, 1987 and 2000.

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.....[2]

(ii) Describe the evidence from the graph which suggests overfishing.

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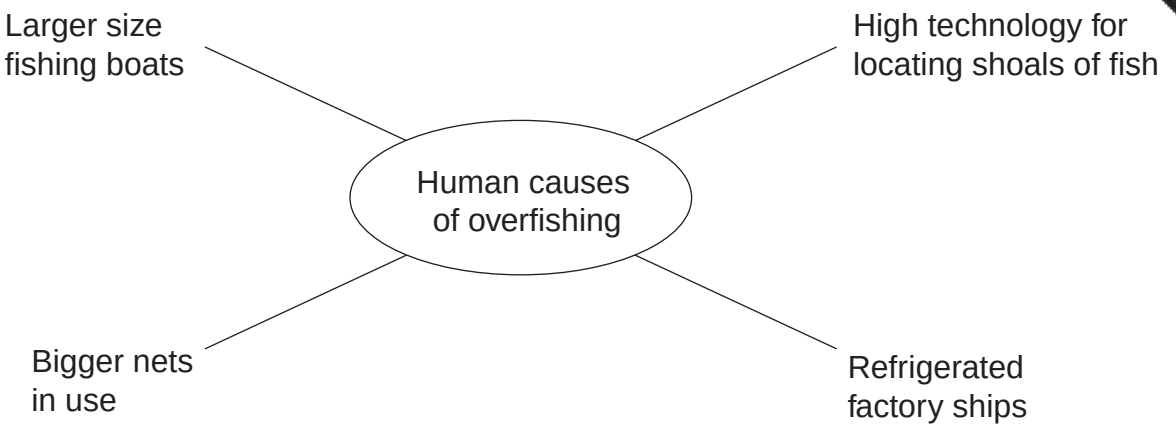
.....[2]

(d) Some of the human causes of overfishing are shown in the spider diagram.



(i) Briefly describe how each one contributes to overfishing.

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.....[4]

(ii) In your view, which one is contributing most to overfishing? Explain why.

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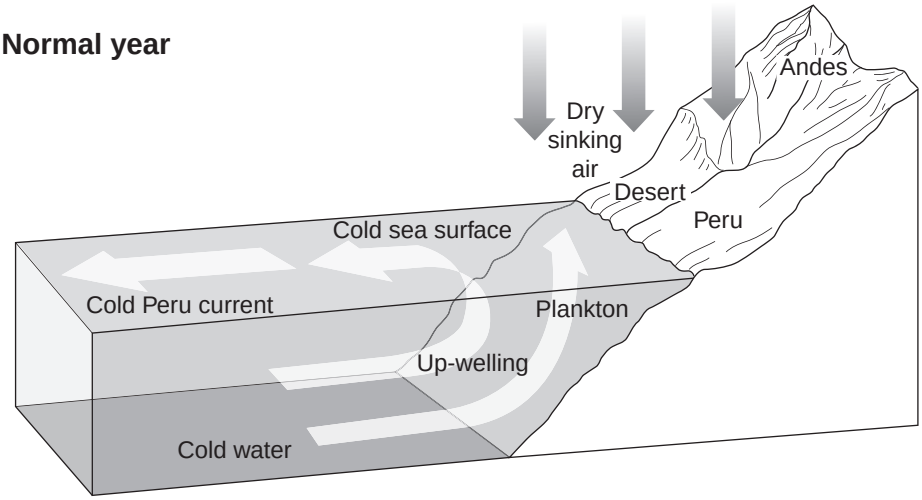
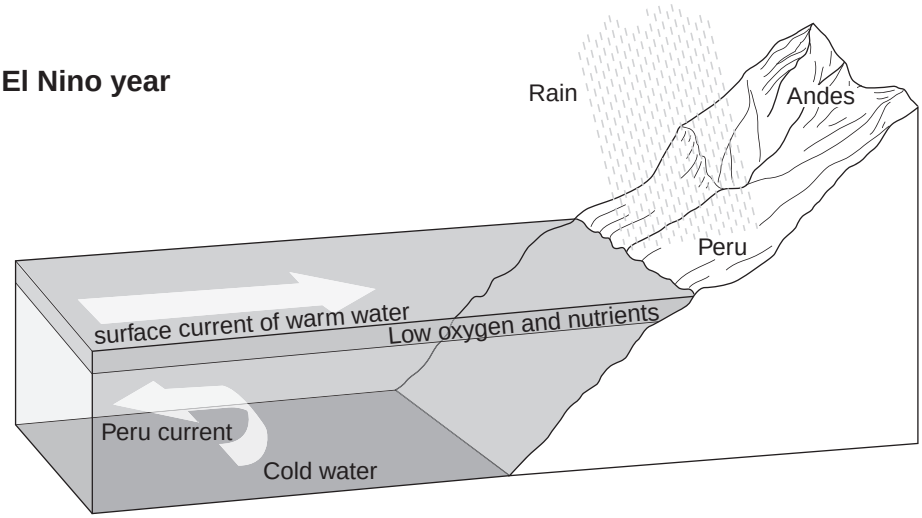
.....[2]

(e) In some ocean fishing areas, fish catches are reduced by natural causes. This h
off the coast of Peru in El Nino years.

Normal year



El Nino year



Describe the differences between normal and El Nino years for

(i) ocean currents

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(ii) warm and cold water

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.....[2]

(iii) Explain why there are fewer fish off the coast of Peru in El Nino years.

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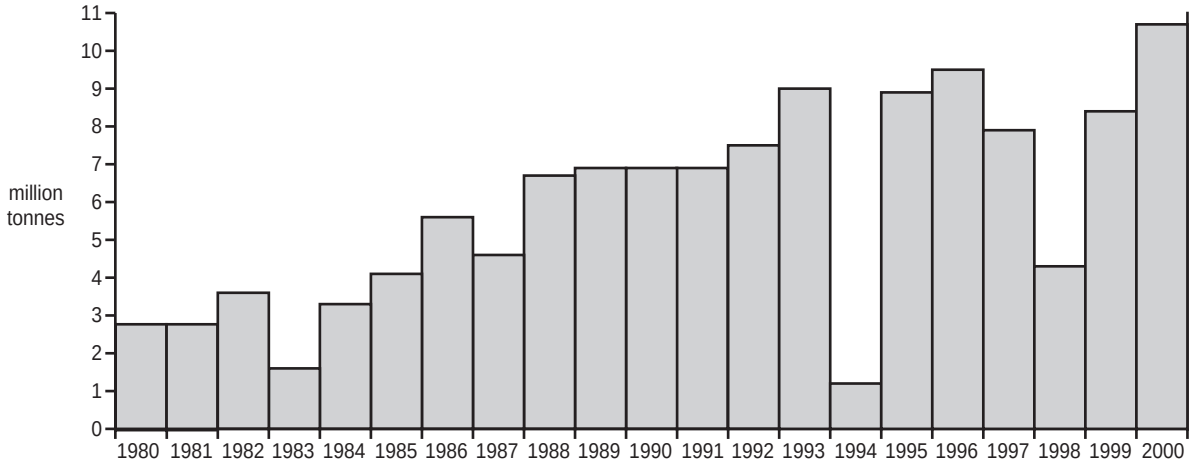
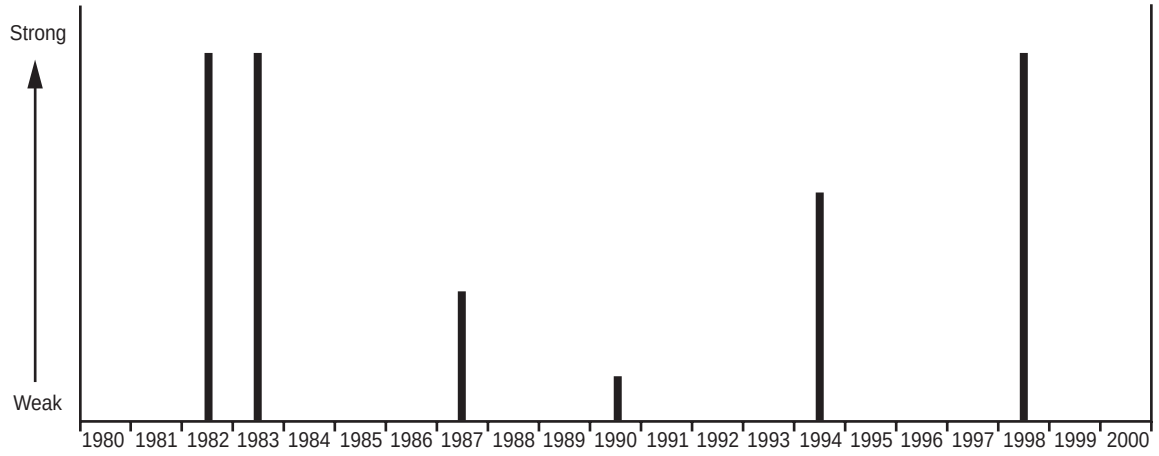
.....[2]

(f) Look at the graph for fish catches in Peru and the graph for El Nino years.

Total fish catches in Peru



The record of El Nino years in Peru



(i) State the three strong El Nino years.

.....[1]

(ii) Do El Nino years have an effect on the size of fish catches in Peru? Suppo answer with evidence from the graphs.

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.....[4]

(iii) Is there any evidence, from the graph of fish catches, for overfishing in Peru during the 1990s? Explain your answer.

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.....[2]

(g) (i) Draw another spider diagram to show three strategies for the sustainable harvesting of ocean fisheries and reducing overfishing.

[4]

(ii) Are these strategies for the sustainable harvesting of ocean fisheries e difficult to carry out? Explain your views on this.

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.....[5]

[Total: 40]

2 **(a)** Look at the photo of a weather station.

(i) State why this is a good place to site a weather station.

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.....[2]

(ii) Give one reason why a fence is usually built around weather stations.

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.....[1]

(iii) Name a weather instrument that will be placed inside the white wooden box.

.....[1]

(iv) Draw a labelled diagram to show how wind speed is measured in a w station.

[3]

(b) Look at the table of climate data for two weather stations in Africa north of the Equator.

Station A

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (°C)	16	19	23	28	31	34	34	34	33	30	24	19
Precipitation (mm)	0	0	0	0	0	0	0	0	0	0	0	0

Station B

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (°C)	22	24	28	31	29	29	27	25	26	27	25	21
Precipitation (mm)	0	0	3	10	69	117	206	310	142	13	0	0

(i) Complete the table below for Station A.

	Station A	Station B
Highest monthly temperature (°C)		31
Lowest monthly temperature (°C)		21
Annual range of temperature (°C)		10
Precipitation during the year		wet and dry season

[3]

(ii) When is the wet season at Station B?

.....[1]

(iii) Major climatic types in Africa

Equatorial Savanna Desert

Name the type of climate at Station A and at Station B.

Station A .....

Station B .....[1]

(iv) State one reason for each of the choices made in part **(iii)**.

Station A .....

.....

Station B .....

.....[2]

(c) Many parts of Africa are too dry for cultivation for part or all of the year. Four options to allow farming in dry areas are listed below.

1 Practise extensive livestock farming
2 Plant new varieties of crops
3 Government builds large dams, reservoirs and irrigation canals
4 Use underground water supplies for trickle drip irrigation

(i) For three of the options, state one advantage and one disadvantage of each for farming in dry areas.

Option number .....

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Option number .....

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Option number .....

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.....[6]

(ii) In your view, which one of the four options is the most sustainable for farming in dry areas? Explain your choice.

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.....[3]

(d) **(i)** Name **one** area where desertification is a major problem.

.....[1]

(ii) There are both physical and human causes of desertification.
Explain this statement.

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.....[3]

(iii) Which is more important as a cause of desertification – human or physical factors?
Explain your view.

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.....[2]

(e) In big cities located in dry climates, such as Los Angeles, atmospheric pollution is a big problem.

(i) State **two** reasons why atmospheric pollution from traffic and industry is often worse in places with a dry climate.

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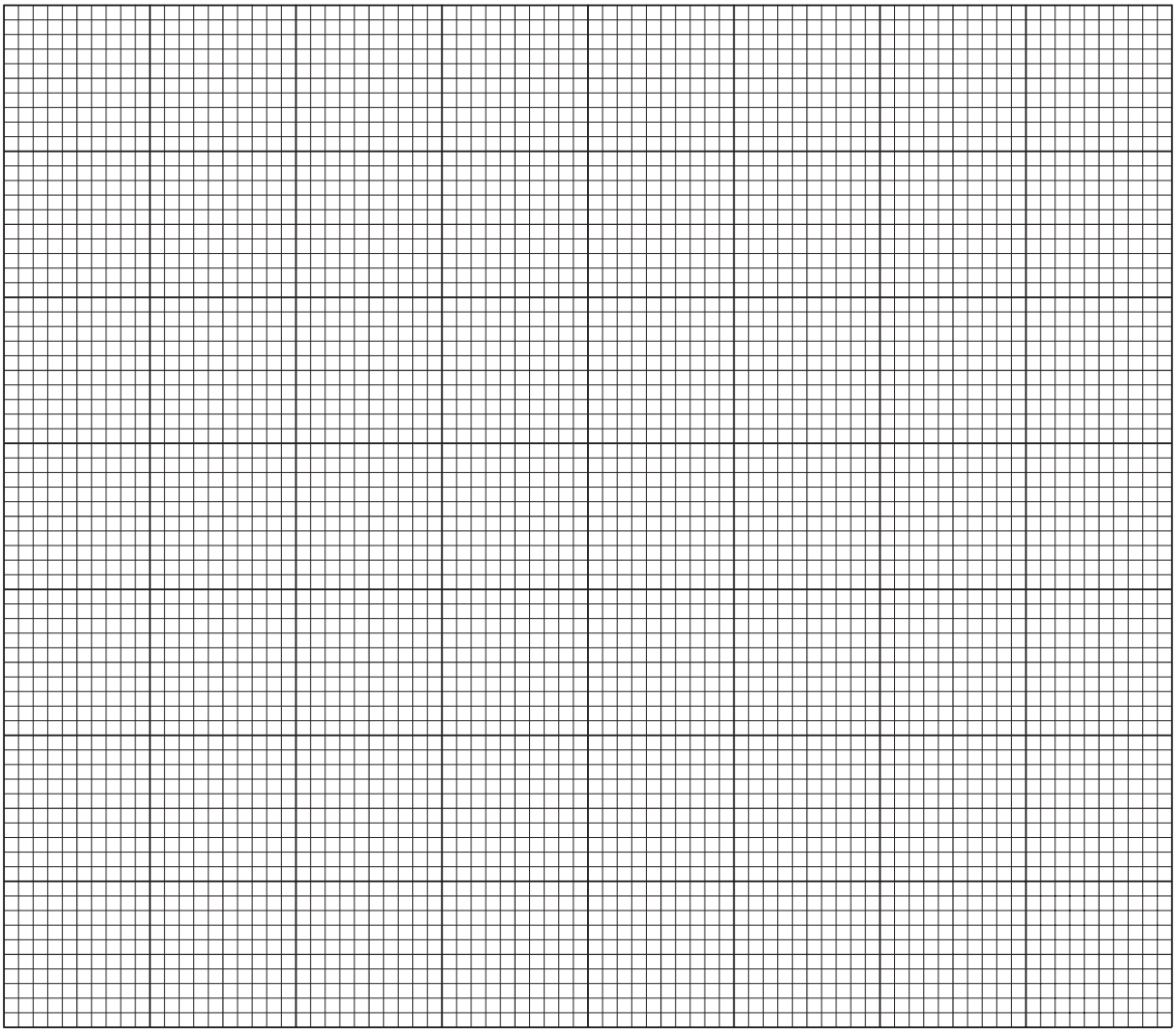
.....[2]

(ii) **Los Angeles**

Number of days with atmospheric pollution worse than recommended health standards

Year	Number of days
1975	210
1980	170
1985	160
1990	130
1995	95
2000	45

In the space below, draw a graph to show these values.



[4]

(iii) Describe the trend from 1975 to 2000.

.....[2]

(iv) Where are strategies for reducing traffic emissions likely to be more effective – in developed world cities like Los Angeles, or in developing world cities like Cairo and Beijing?

Explain your answer as fully as you can.

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.....[4]

[Total: 40]

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