



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

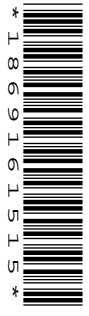
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NAME

CENTRE
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ENVIRONMENTAL MANAGEMENT

0680/01

Paper 1

May/June 2009

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.

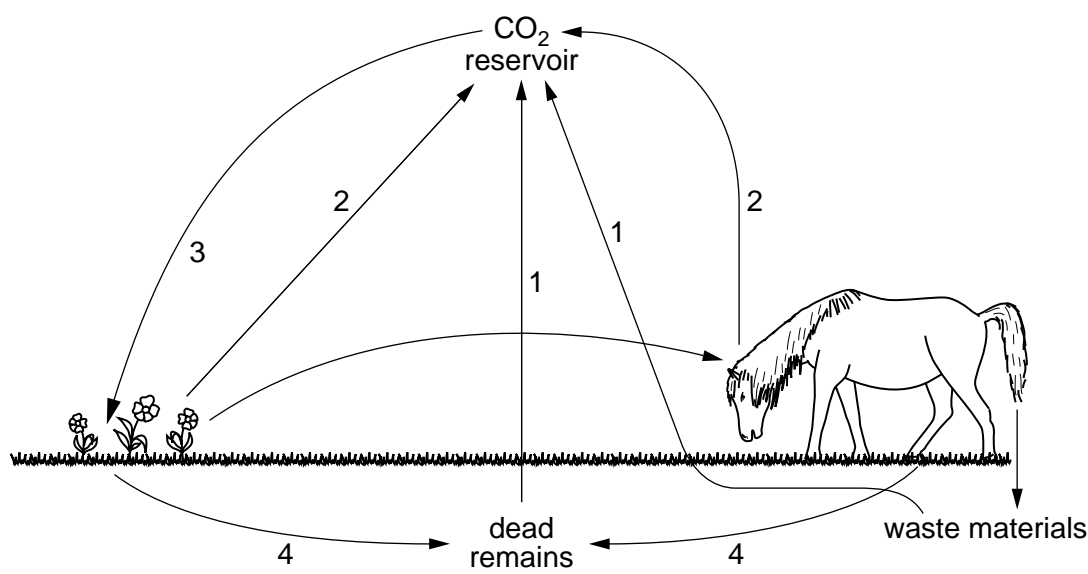
Answer **all** questions.

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.

| For Examiner's Use | |
|--------------------|--|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| Total | |

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

1 The diagram shows the carbon cycle.



(a) (i) Where, in the diagram, is the carbon dioxide reservoir for land plants?
..... [1]

(ii) Name the processes shown by 1, 2, 3 and 4.
1
2
3
4 [2]

(iii) Processes 1 and 2 show how carbon dioxide is returned into the reservoir. Process 3 shows it being removed. For thousands of years the loss and the gain have been in balance, but this is no longer true. Explain why.
.....
.....
.....
.....
.....
..... [3]

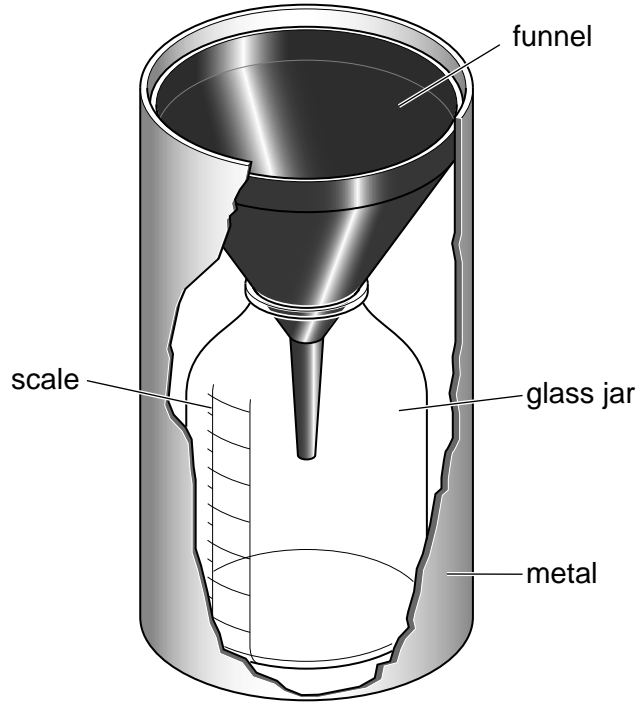
(b) (i) Explain how this lack of balance between carbon dioxide loss and gain might contribute to climate change.

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

(ii) State **one** way people might take action to reduce this problem of climate change.

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

2 The diagram shows an instrument used for measuring rainfall.



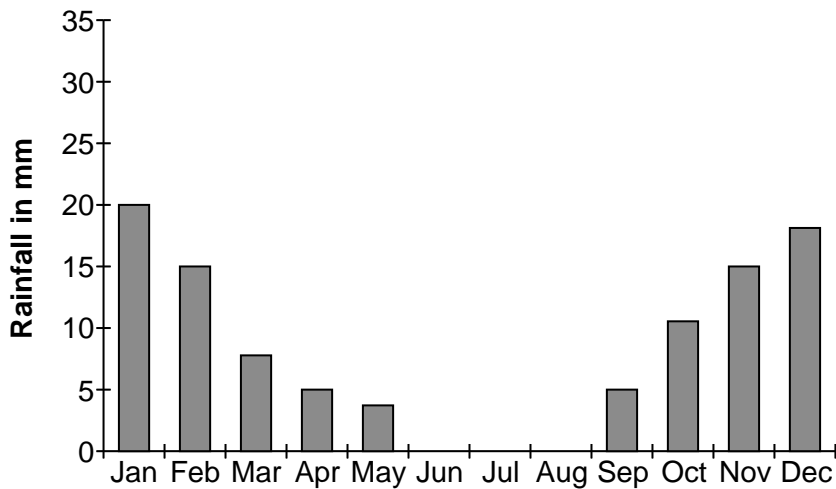
(a) (i) Describe where you would place this instrument in order to obtain accurate measurements.

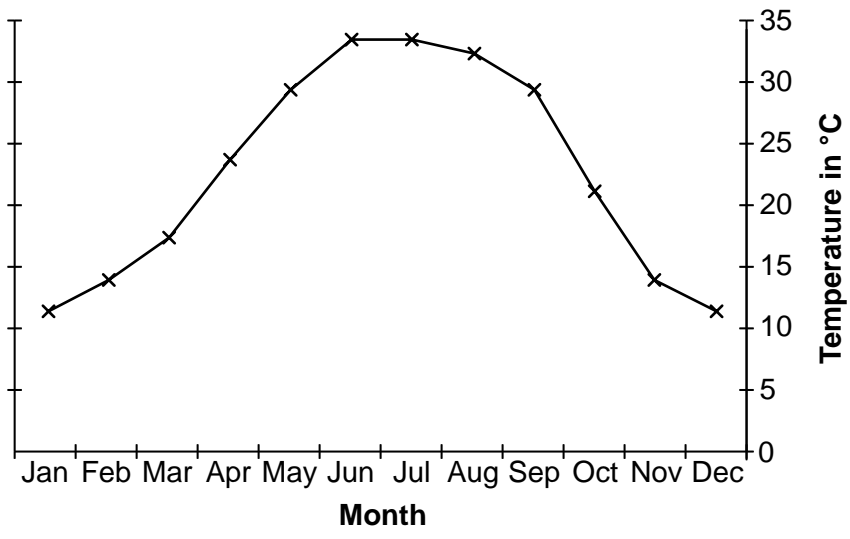
.....
.....
..... [2]

(ii) Describe how a person would take accurate, daily readings.

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

The graphs shows the climate for a location in the Northern Hemisphere.





(b) (i) Describe the annual pattern of rainfall.

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

(ii) What would farmers need to do to grow good crops throughout the year in a climate such as this?

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

(iii) State **one** other way in which farmers might be able to increase crop yield.

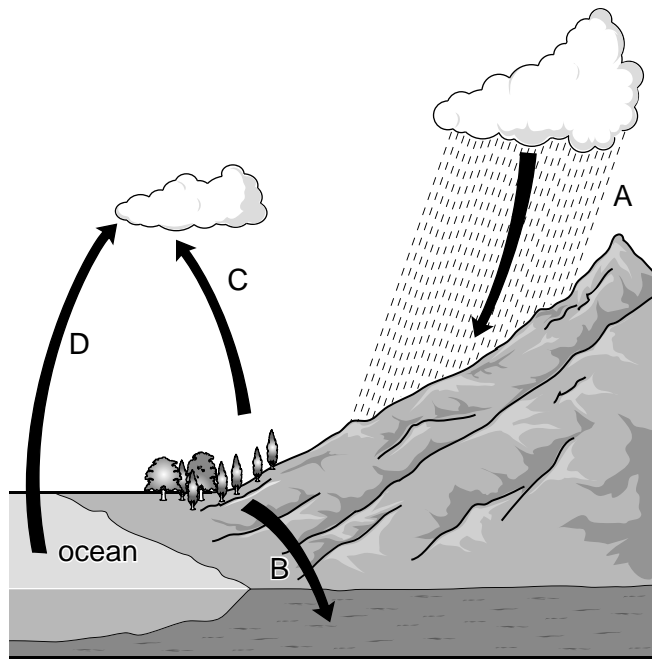
.....
..... [1]

(c) Describe another use for a crop other than food for people or feed for animals.

Name of crop

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

3 Study the diagram below of the water cycle.



(a) (i) Name the processes

A

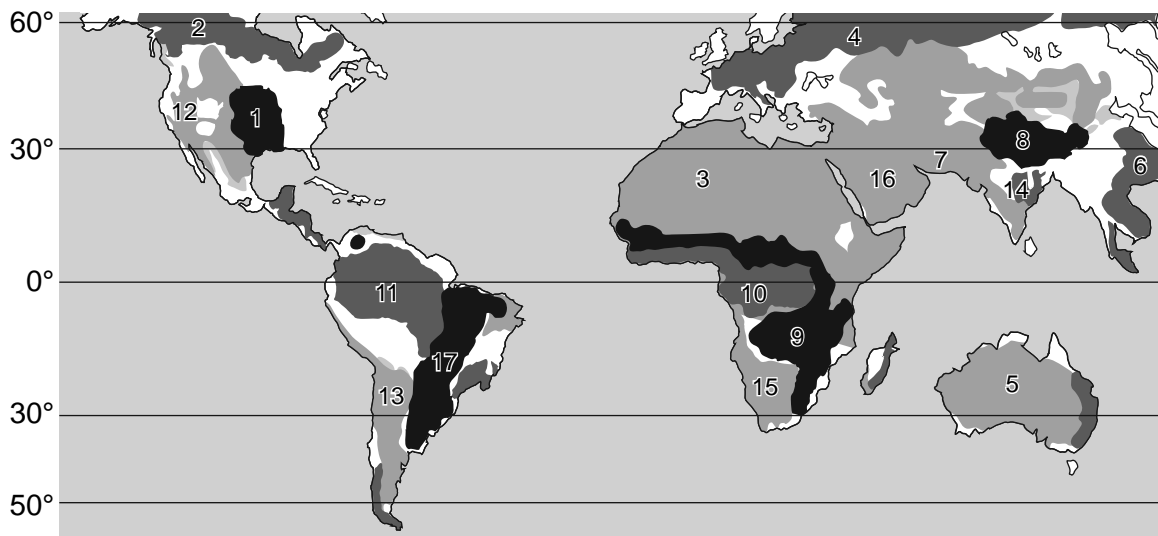
B

C

D

[3]

(ii) Study the map below and list the numbers of **four** areas with low precipitation.



.....
.....

.....
.....

[2]

(b) Even in areas of high precipitation, water may not be of good quality for human use. Two major water related problems are *pollution* and *water related diseases*.

(i) Name **one** water pollutant and state **one** way it affects humans.

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

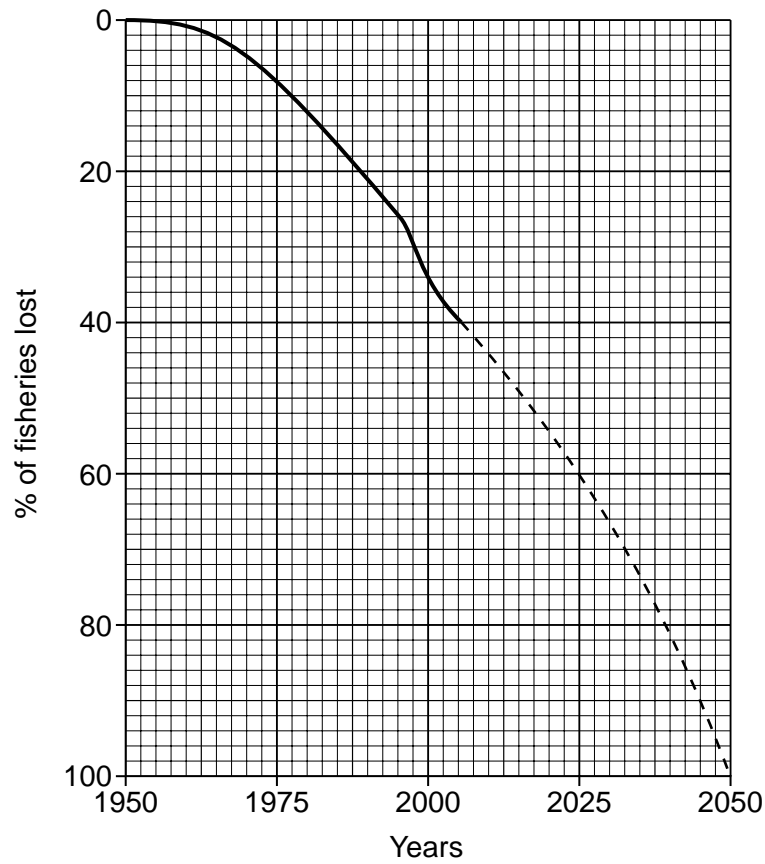
(ii) Name **one** water related disease.

..... [1]

(iii) How might the water related disease you have named be controlled?

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

4 Study the graph below of world losses of fisheries.



(a) (i) What percentage of world fisheries was lost by 2000?

..... [1]

(ii) What will the expected percentage loss be by 2025?

..... [1]

(iii) State and explain **two** reasons for the loss of fisheries since 1950.

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

(b) (i) Fish is an important source of food for humans, so more effort needs to be put into sustainable fishing.

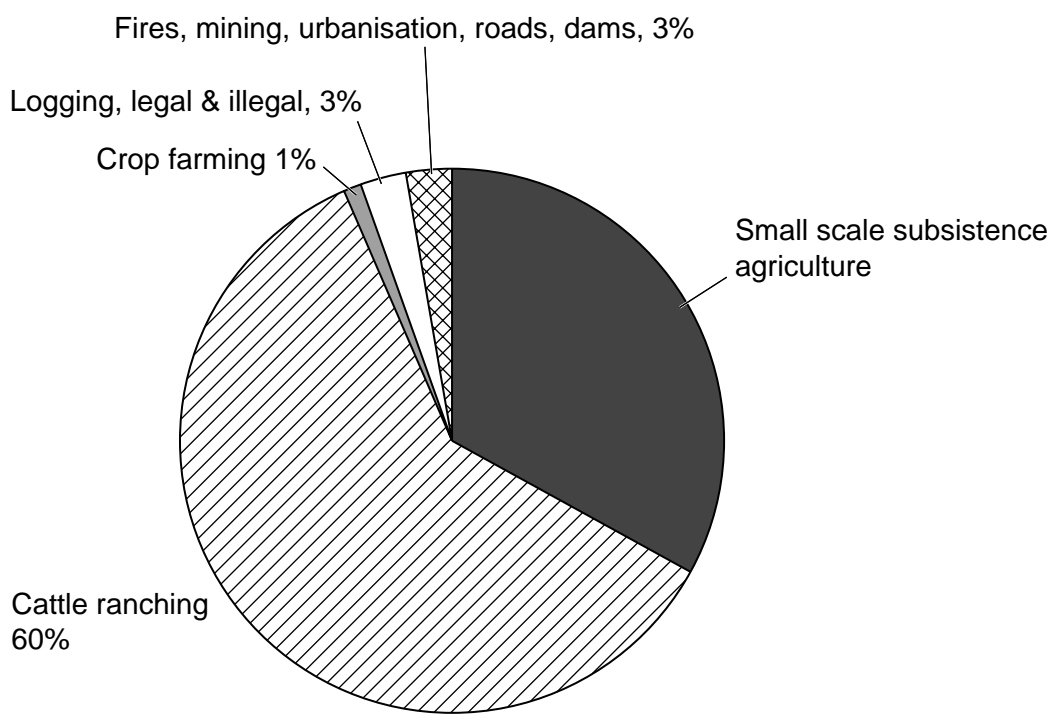
State **two** strategies for sustainable fishing.

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

(ii) Suggest **two** reasons why these strategies are not always successful.

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

5 The diagram shows the main causes of deforestation in the Amazon Rainforest.



(a) (i) Calculate the percentage of deforestation in the Amazon caused by small scale subsistence agriculture (Show your working).

[2]

(ii) What is meant by 'subsistence agriculture'?

.....

.....

.....

..... [2]

(b) (i) Other than the loss of habitat and soil erosion, how else might cattle ranching affect the environment? Explain your answer.

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

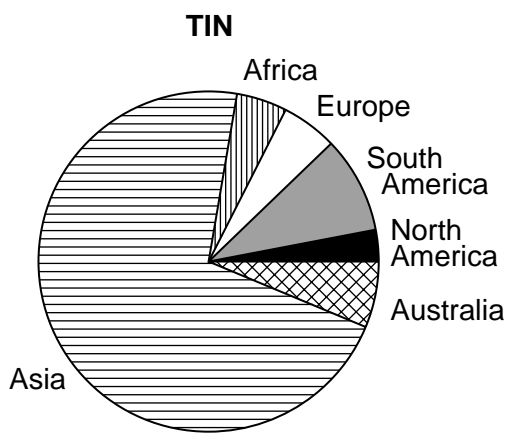
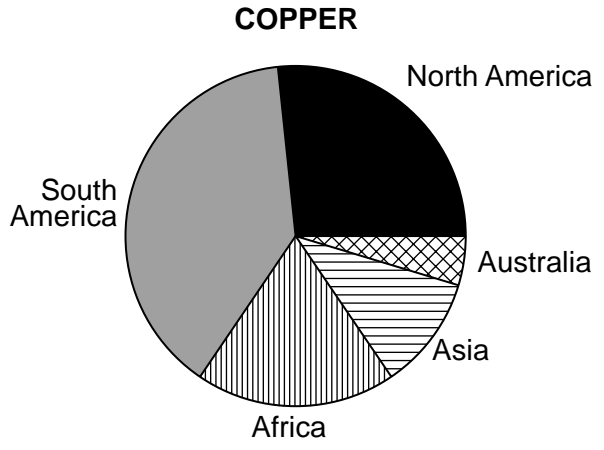
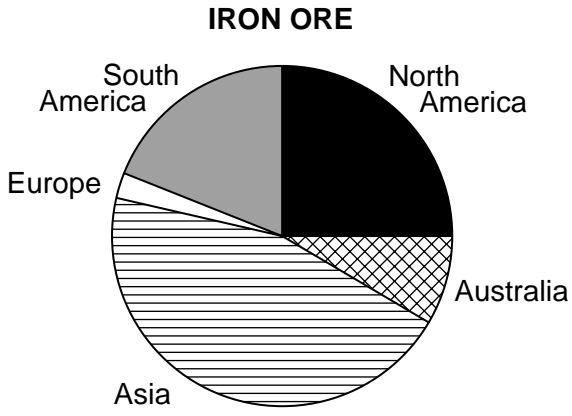
(ii) State **one** way of reducing the effects of logging on the environment.

..... [1]

(iii) Describe how logging in Tropical Rainforest could be reduced.

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

6 Study the following diagrams showing the world distribution of deposits of iron ore, and tin.



(a) (i) Which continent has the largest deposit of:

iron ore

copper

tin

[3]

(ii) All the above minerals are described as metallic minerals, name **one** non-metallic mineral and give one of its uses.

.....

.....

..... [2]

(b) Deep and open cast mining can have negative impacts on the miners and the environment. State **one** negative impact of

(i) deep mining on miners

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

(ii) open cast mining on the environment

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

(c) Describe ways of improving the environment when opencast mining has stopped.

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

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