Cambridge IGCSE

Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

8122929106

ENVIRONMENTAL MANAGEMENT **0680/11**

Paper 1 **October/November 2015**

1 hour 30 minutes

Candidates answer on the Question Paper.

No Additional Materials are required.

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 an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.
DO **NOT** WRITE IN ANY BARCODES.

Answer **all** questions.

Electronic calculators may be used.
You may lose marks if you do not show your working or if you do not use appropriate units.

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 **14** printed pages and **2** blank pages.

CAMBRIDGE International Examinations

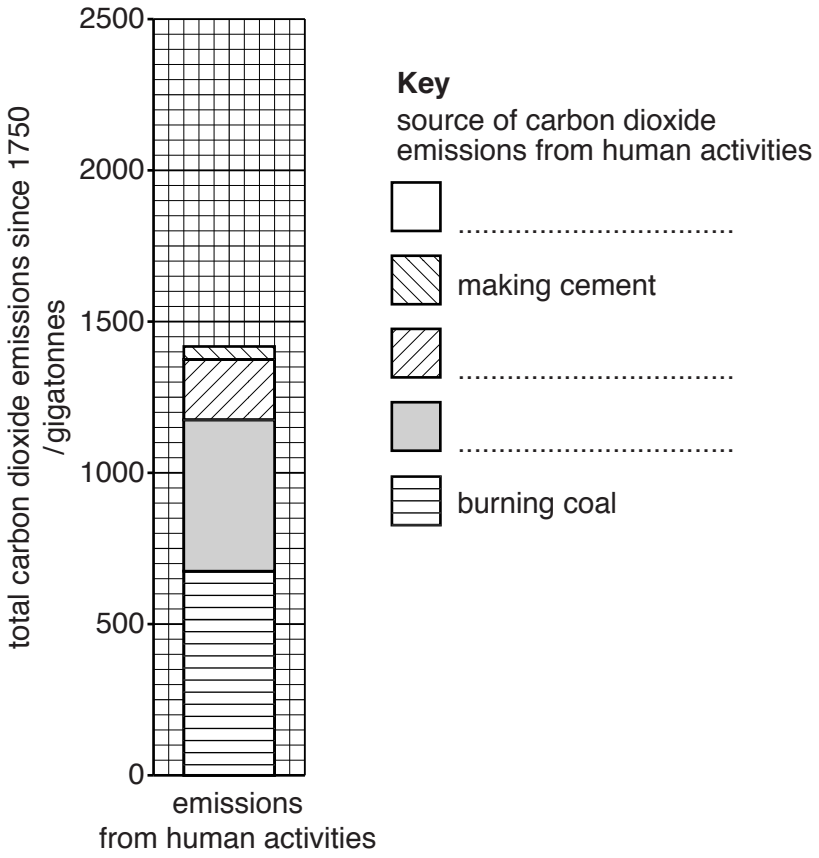
1 **(a)** Three gases in the Earth's atmosphere are carbon dioxide, oxygen and nitrogen. Match each gas to the correct description in the table below.

gas	description
.....	the most abundant
.....	used by animals in respiration
.....	used in photosynthesis

[2]

(b) **(i)** Use the information in the table to complete the divided bar graph and key.

source of carbon dioxide emissions from human activities	total carbon dioxide emissions since 1750 / gigatonnes
burning coal	674
burning oil	497
burning gas	203
making cement	36
changes in land use	590



[3]

(ii) State and explain **one** change in land use that increases carbon dioxide emissions.

.....

.....

.....

.....[2]

(iii) Over 40 percent of these carbon dioxide emissions are still in the atmosphere. Describe the environmental problems that this increase in the amount of carbon dioxide in the atmosphere has caused.

.....

.....

.....

.....

.....

.....[3]

[Turn over

2 (a) (i) Complete the following passage.

All living things need food to grow. Plants make their own food in a process called ..... . Carbon dioxide and ..... are combined together using ..... energy to make sugar and starch. [2]

(ii) Describe how the use of fertilisers and pesticides improves the yield of crops.

fertilisers .....

.....

pesticides .....

..... [2]

(b) Coffee beans are an important cash crop in some developing countries. The table below gives information about the cost of a cup of coffee in a café in a developed country.

money received by:	US$
growers	0.05
traders	0.30
roasters	0.79
shippers	0.17
café	0.44
total cost of a cup of coffee	1.75

Calculate the percentage of the total cost of a cup of coffee which goes to the growers.

Space for working.

..... % [2]

(c) Look at the flow chart below, which shows how a fairtrade agreement works.

Briefly suggest **different** advantages of fairtrade to each the following people.

a coffee bean grower

.....

.....

a buyer for a fairtrade organisation

.....

.....

a shop owner, selling fairtrade coffee

.....

.....

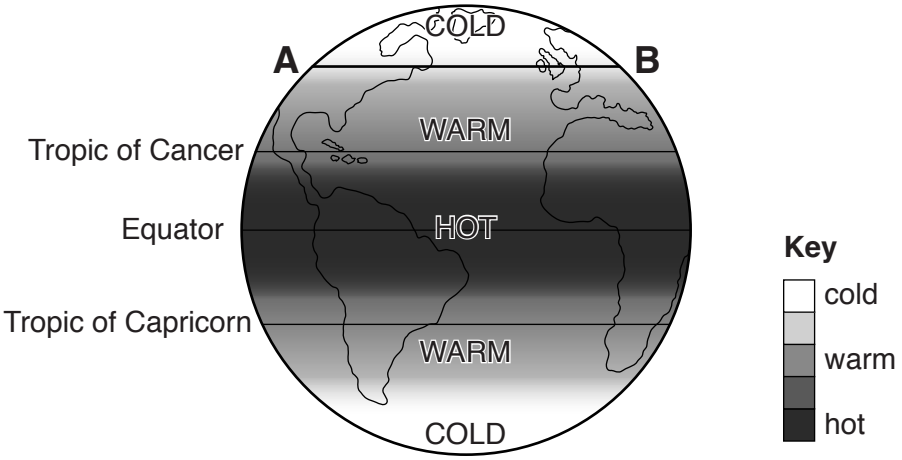
a customer, buying fairtrade coffee

.....

.....

[4]

3 **(a)** Look at the diagram below, which shows the expected distribution of temperature across the Earth if the Sun were the only factor influencing temperature.



(i) Explain why this distribution is what would be expected.

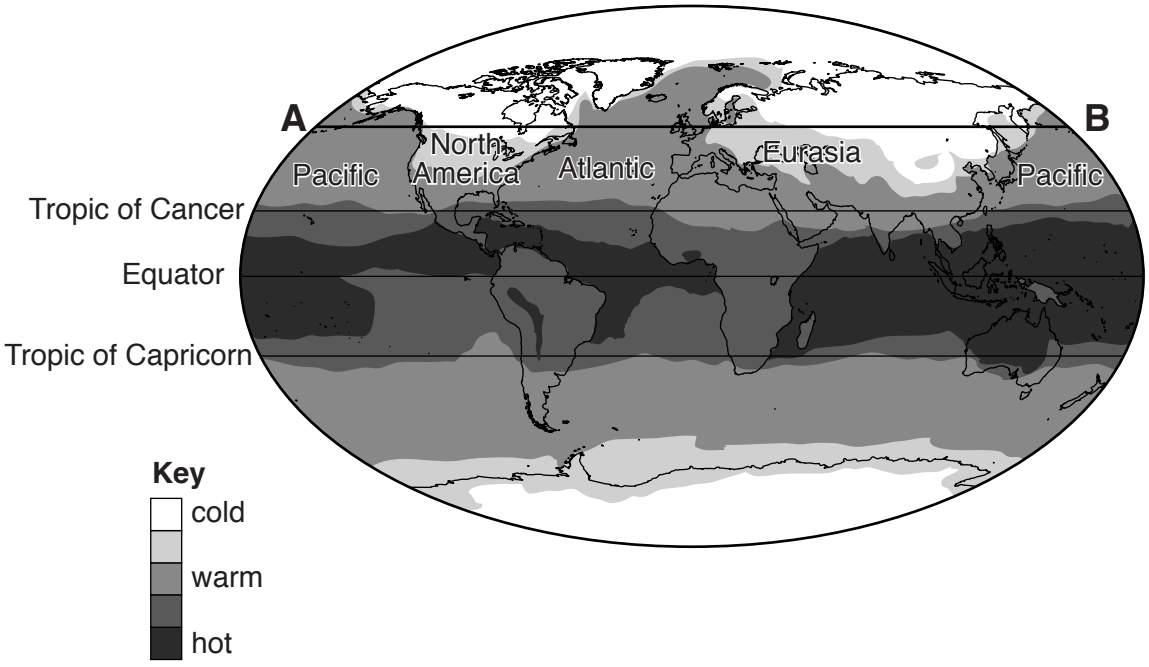
.....

.....

.....

.....[2]

Look at the map below, which shows the actual distribution of average temperatures in January.



(ii) Describe and explain the differences between the expected and actual distribution of temperature along the line labelled **A** to **B**.

.....

.....

.....

.....

.....

.....[3]

(b) (i) Energy from the Sun is an example of alternative energy. State the names of **two** other alternative energy sources.

.....

.....[2]

(ii) Thousands of villages in a developing country are not connected to a national power grid, supplying electricity from power stations. This country gets an average of 300 sunny days a year. Suggest what the government might do to supply the people living in these villages with electricity.

.....

.....

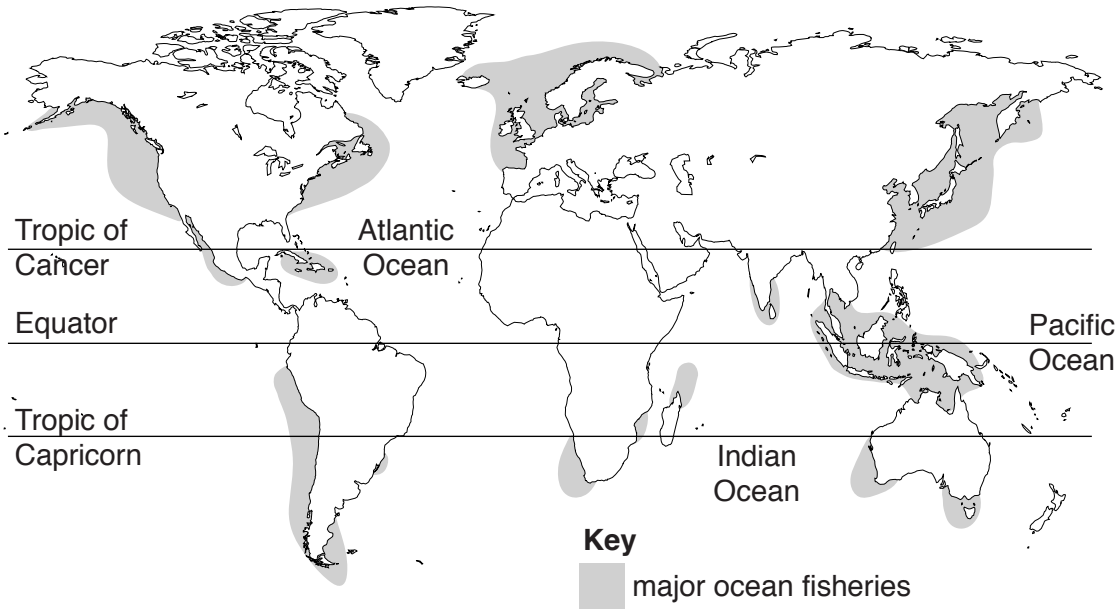
.....

.....

.....

.....[3]

4 **(a)** Look at the map below, which shows the distribution of major ocean fisheries.



Describe **and** explain the distribution of these major ocean fisheries.

.....

.....

.....

.....

.....

.....

.....

.....[4]

(b) A book states:

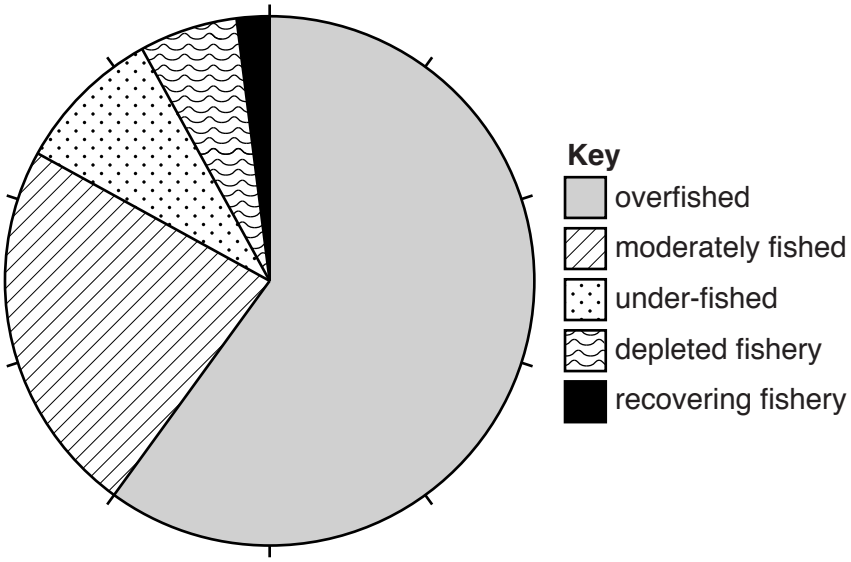
"About 70 percent of world ocean fisheries are no longer sustainable."

(i) Define the term *sustainable*.

.....

.....[1]

(ii) Look at the pie graph below, which shows information about the world's ocean fisheries. To what extent do you agree with the statement in the book? Explain your answer.



.....

.....

.....

.....[2]

(iii) Describe strategies for the sustainable harvesting of fish from world ocean fisheries.

.....

.....

.....

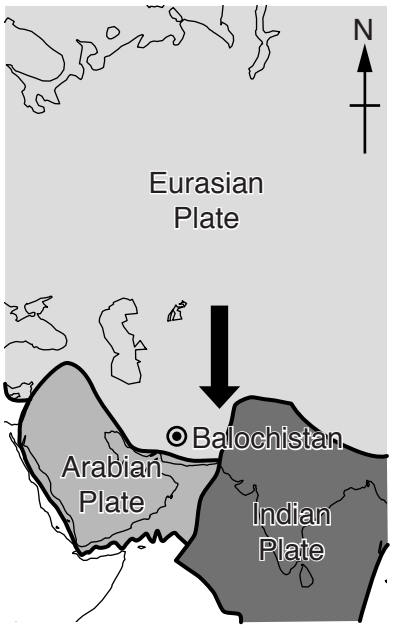
.....

.....

.....[3]

5 **(a)** Look at the newspaper report about an earthquake.

On the afternoon of Tuesday, 24 September 2013 there was an earthquake in Pakistan that measured 7.7 magnitude on the Richter Scale. It caused widespread destruction in the province of Balochistan. Powerful tremors and shaking lasted for 2 minutes. At least 400 people were killed and 100 000 lost their homes. The frequent earthquakes in this area are a result of collisions of the Arabian and Indian plates with the Eurasian Plate.



Key

direction of Eurasian Plate movement

epicentre

(i) Use the information in the newspaper report to suggest the direction of movement of the Arabian and Indian plates.

.....

.....[1]

(ii) Explain why earthquakes are frequent in this area.

.....

.....

.....

.....[2]

(b) Look at the table below, which shows the number of deaths recorded from fourteen earthquakes of magnitude 7.7 since records began.

earthquake	number of deaths
1	2400
2	550
3	13
4	10 000
5	5000
6	12
7	6
8	250
9	2500
10	300
11	10
12	15 000
13	50 000
14	11

(i) State the range of the numbers of deaths caused by magnitude 7.7 earthquakes.

.....[1]

(ii) Suggest why some earthquakes of the same magnitude cause a greater loss of life than others.

.....

.....

.....

.....

.....

.....[3]

(c) Explain why fewer people are usually killed during volcanic eruptions than during earthquakes.

.....

.....

.....

.....

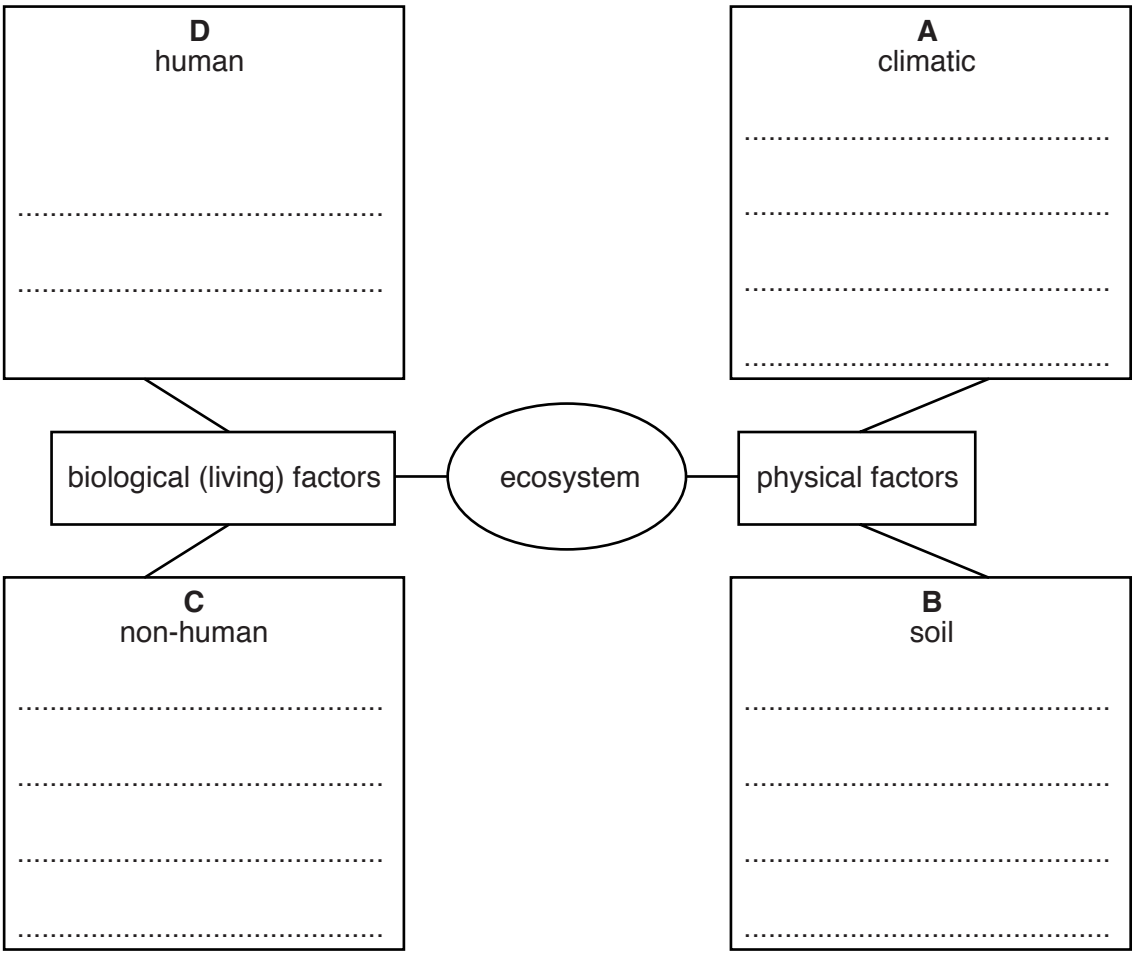
.....

.....[3]

6 **(a)** Look at the list of biological (living) factors and physical factors which affect ecosystems.

competitors consumers humidity light nutrients pH predators producers salinity temperature water wind

(i) Write each word from the list above once only in the relevant box **A**, **B** or **C**. [4]



(ii) Complete box **D** with **two** examples of human activities which might affect an ecosystem. [2]

(b) (i) Soil erosion is a major problem for ecosystems around the world. Describe and explain **one** cause of soil erosion.

.....

.....

.....

.....[2]

(ii) Describe **one** strategy for the conservation of soil.

.....

.....

.....

.....[2]

BLANK PAGE

BLANK PAGE