



**Cambridge International Examinations**  
Cambridge International General Certificate of Secondary Education

CANDIDATE  
NAME

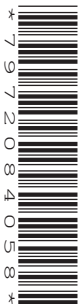
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CENTRE  
NUMBER

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**ENVIRONMENTAL MANAGEMENT**

**0680/13**

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.

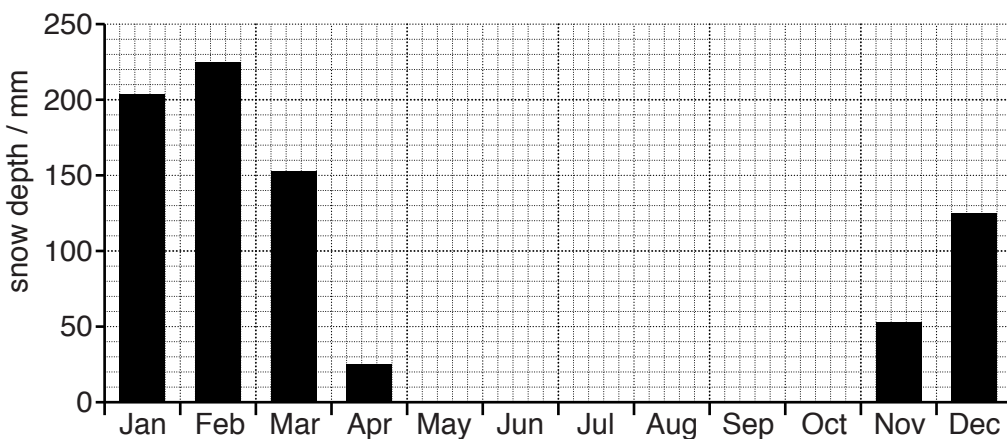
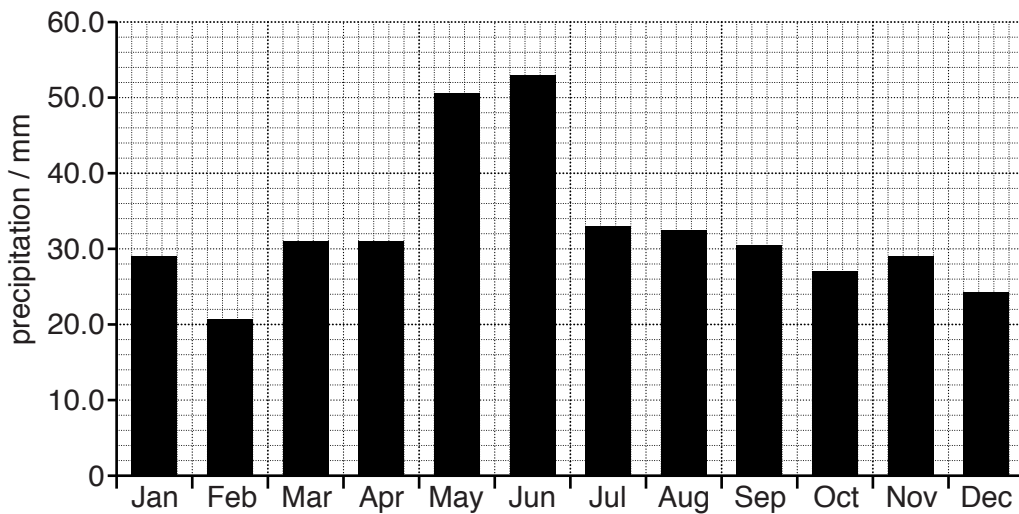
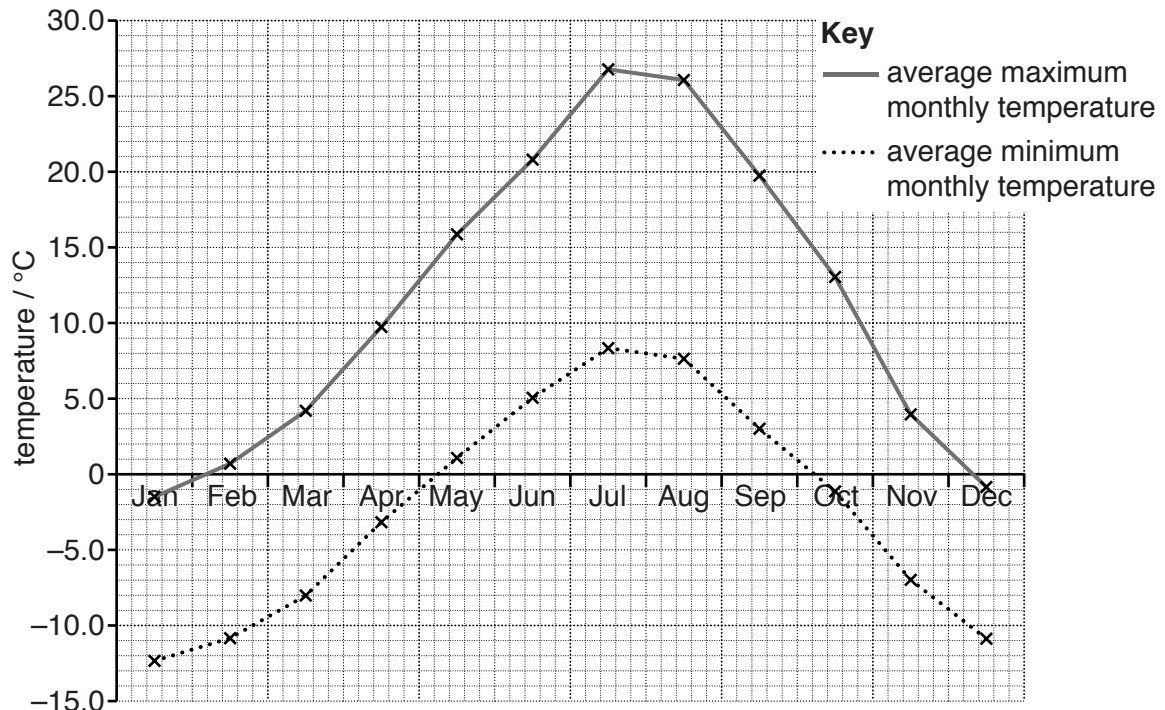
You may lose marks if you do not show your working or if you do not use appropriate units.

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 **13** printed pages and **3** blank pages.

- 1 The graphs below show average maximum and minimum monthly temperatures, precipitation and snow depth at Yellowstone National Park in the United States of America.



(a) Use information from the graphs to complete the passage.

In Yellowstone National Park there is snow on the ground for ..... months of the year. The temperature stays below freezing in the months of ..... and ..... . The hottest month is ..... with a maximum temperature of ..... . Summers are wet, with most rain falling in ..... . [3]

(b) The mountain slopes in Yellowstone National Park are covered by taiga vegetation (coniferous trees).

Describe and explain how coniferous trees are adapted to the climate shown on the graphs.

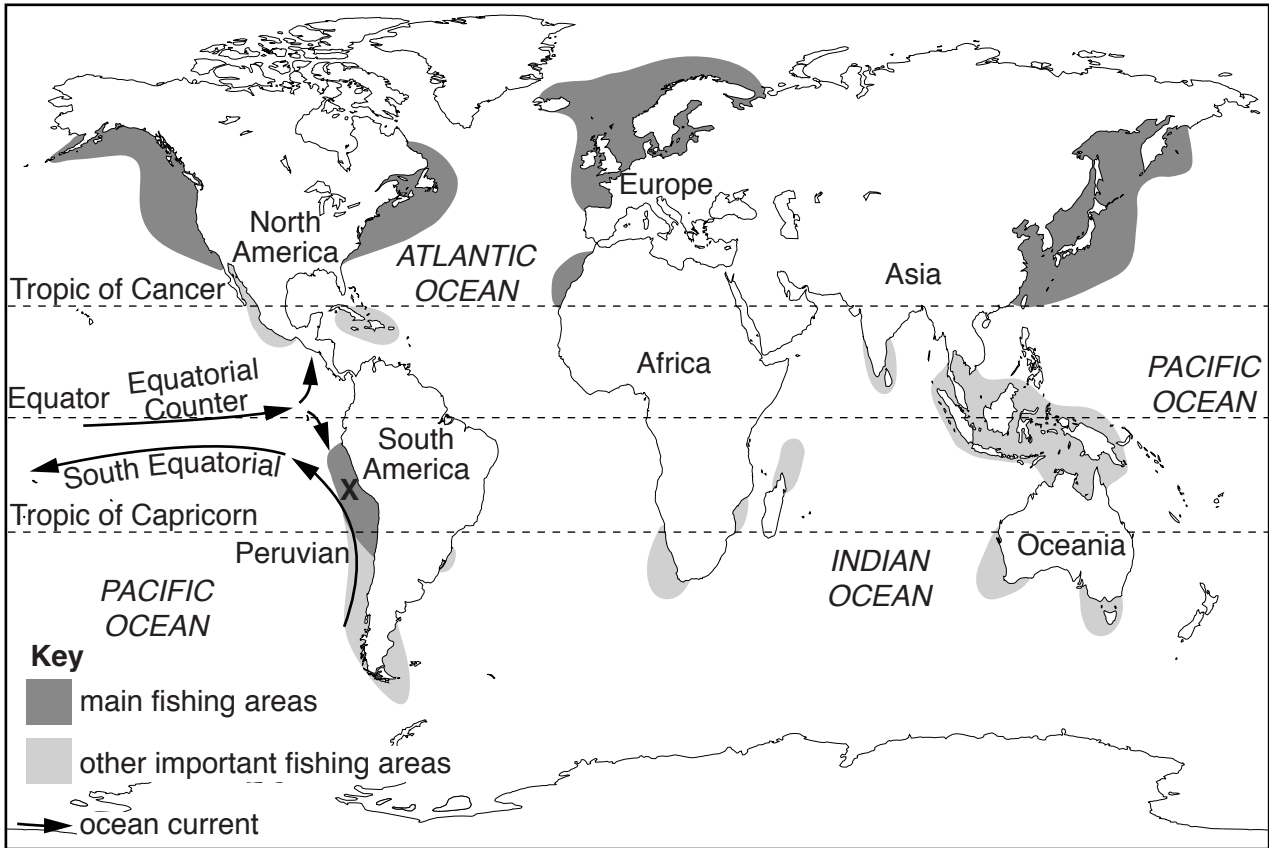
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(c) National Parks are set up to conserve the biodiversity of ecosystems.

Describe **two** other strategies for conserving the biodiversity of ecosystems.

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.....[3]

2 Look at the map below of world ocean fishing areas.



(a) (i) Describe the location of the main ocean fishing areas shown on the map.

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.....[2]

(ii) In some years area X on the map is a very productive fishing area. In other years, very few fish are caught. Explain how ocean currents cause these changes.

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(b) In some of the areas on the map too many fish have been caught and there are not enough fish left to reproduce. This is called overfishing.

Explain **two** causes of overfishing.

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.....[4]

3 Look at the newspaper report below.

11.00 6 March 2013

**Europe's highest active volcano erupts**

Mount Etna, on the island of Sicily, erupted last night throwing ash and lava high into the sky. Mount Etna has been erupting periodically for over 3500 years. In 2008, an eruption continued for 417 days and there were more than 200 earthquakes.

Mount Etna is 3329 metres high and covers an area of 1190 km<sup>2</sup>. Over one million people live in towns and villages on the slopes of the volcano, where there are many vineyards and orchards.

Aeroplanes sometimes have to alter their routes to avoid flying through ash clouds to reach Catania airport at the foot of the volcano.

(a) (i) State how many people live on the slopes of Mount Etna.

.....[1]

(ii) Using the information in the newspaper report and your own knowledge, explain why so many people live on the slopes of Mount Etna.

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.....[3]

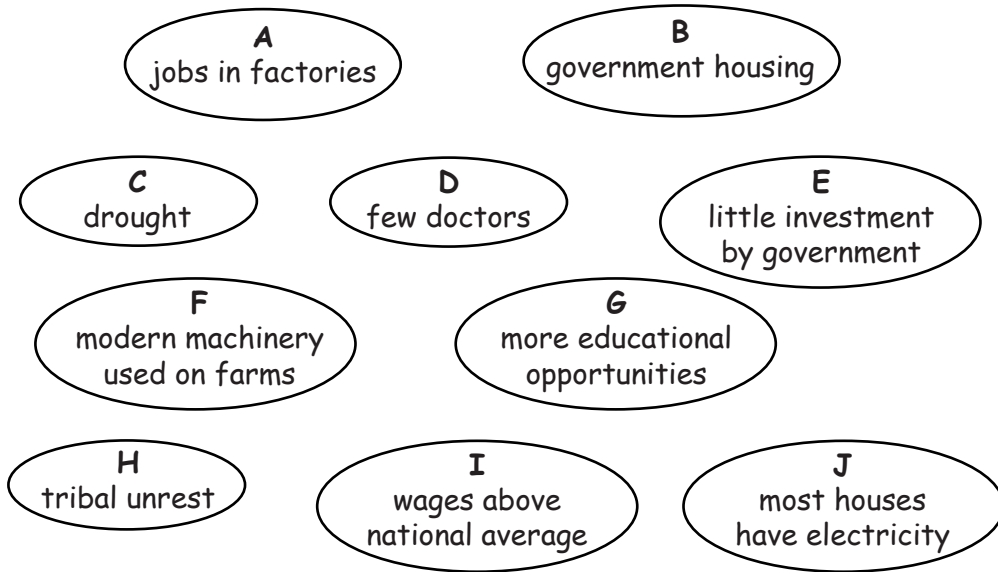
(b) Describe strategies for managing the impacts of volcanic activity.

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.....[4]

(c) The newspaper report states there were 200 earthquakes in 2008. Suggest reasons why **no** people died as a result of these 200 earthquakes.

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.....[2]

4 Some of the reasons why people are moving to Lagos, a large city in Nigeria, from rural areas are shown below.



(a) (i) State the name given to the movement of people to live in a different place.  
.....[1]

(ii) Give the letters of **three** push and **three** pull factors.

push factors	pull factors
1. ....	1. ....
2. ....	2. ....
3. ....	3. ....

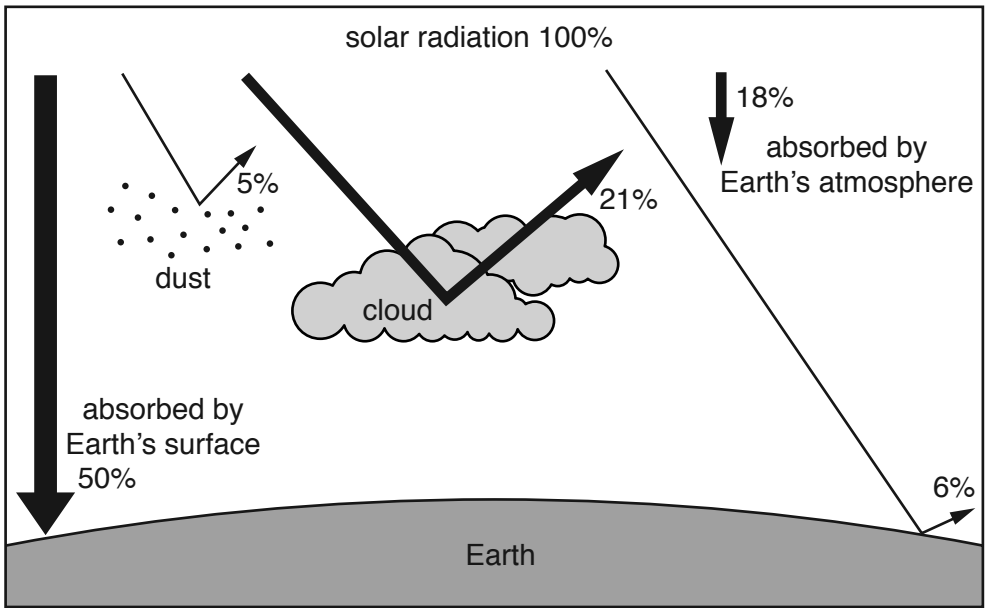
[2]

(b) (i) Describe and explain how the growth of cities increases air pollution.  
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.....[3]





5 Look at the diagram below, which shows what happens to solar radiation.



(a) (i) Complete the table below.

solar radiation	percentage
reflected by clouds	.....
reflected by dust	.....
reflected by the surface of the Earth	.....

[1]

(ii) Calculate the percentage of solar radiation that the diagram shows never reaches the Earth's surface.

Space for working.

..... % [1]

(b) State **two** factors that cause temperatures to vary from place to place on the Earth's surface.

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

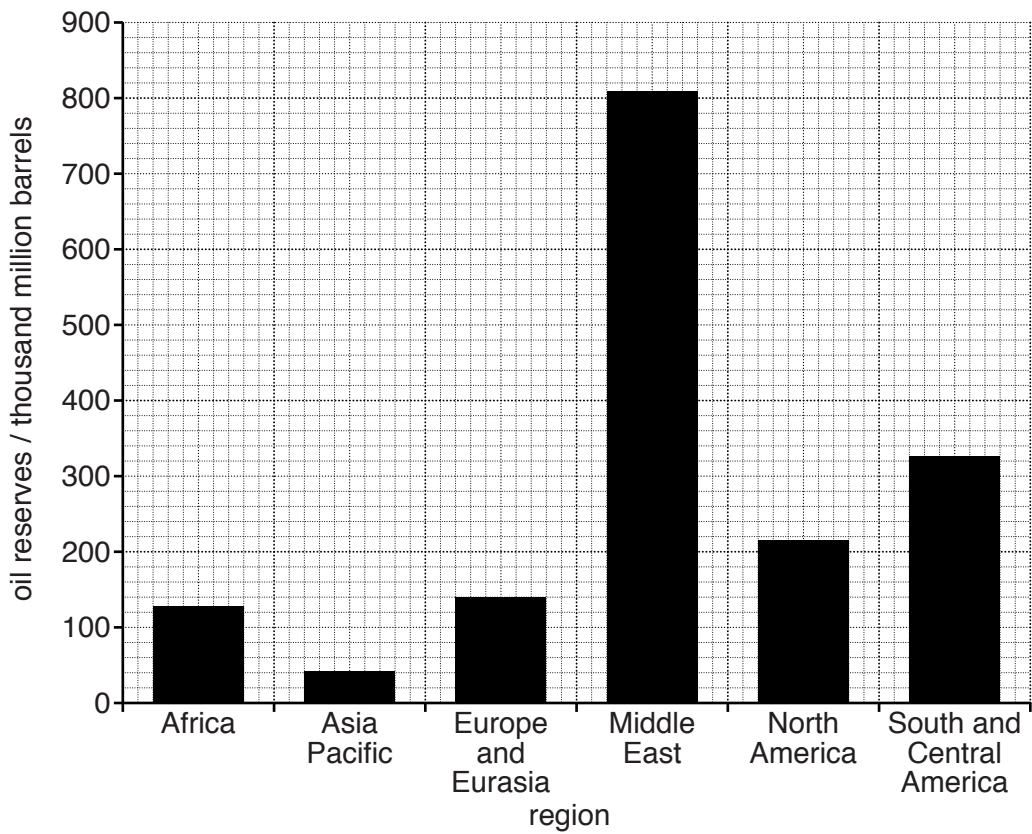
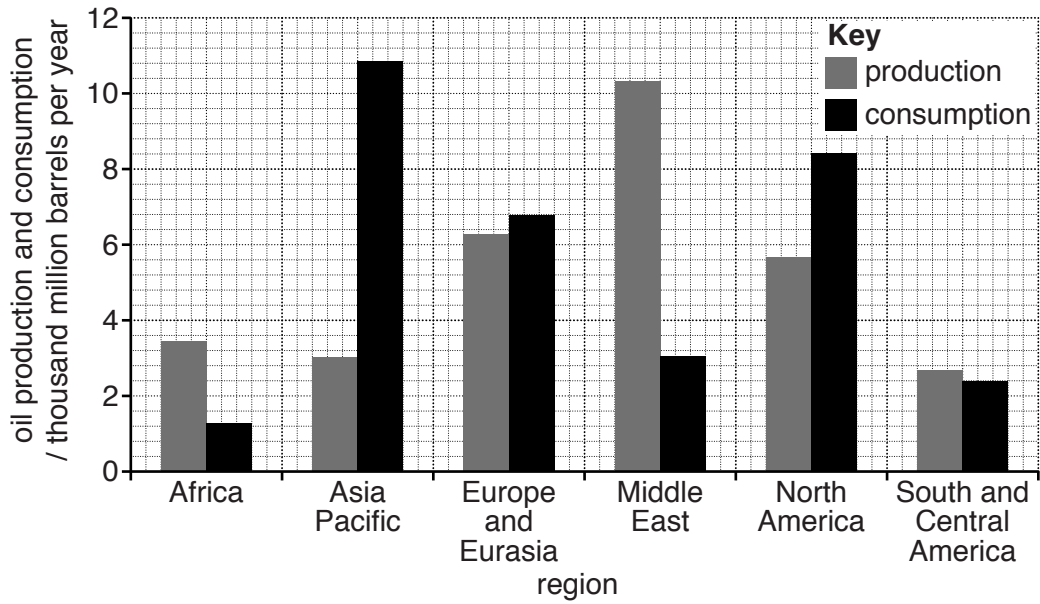
(c) (i) Global warming is the increase in temperature of the Earth's atmosphere. Describe and explain **two** problems caused by global warming.

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.....[4]

(ii) Explain why some people might view global warming as an advantage rather than a problem.

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.....[2]

6 Look at the bar graphs below, which show the reserves, production and consumption of oil in 2012.



(a) (i) State the region that produced the most oil in 2012.

.....[1]

- (ii) Calculate the difference between production and consumption in the Middle East in 2012.  
Space for working.

..... thousand million barrels/year [1]

- (iii) Use the information in the two graphs to explain why imports of oil by countries in the Asia Pacific region are likely to remain high in the future.

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.....[3]

- (b) (i) State **two** ways in which crude oil is transported around the world.

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.....[1]

- (ii) State and explain **two** environmental problems caused by the transport of oil around the world.

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.....[4]





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