Cambridge IGCSE

Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

3670897457

ENVIRONMENTAL MANAGEMENT **0680/12**

Paper 1 **October/November 2018**

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.

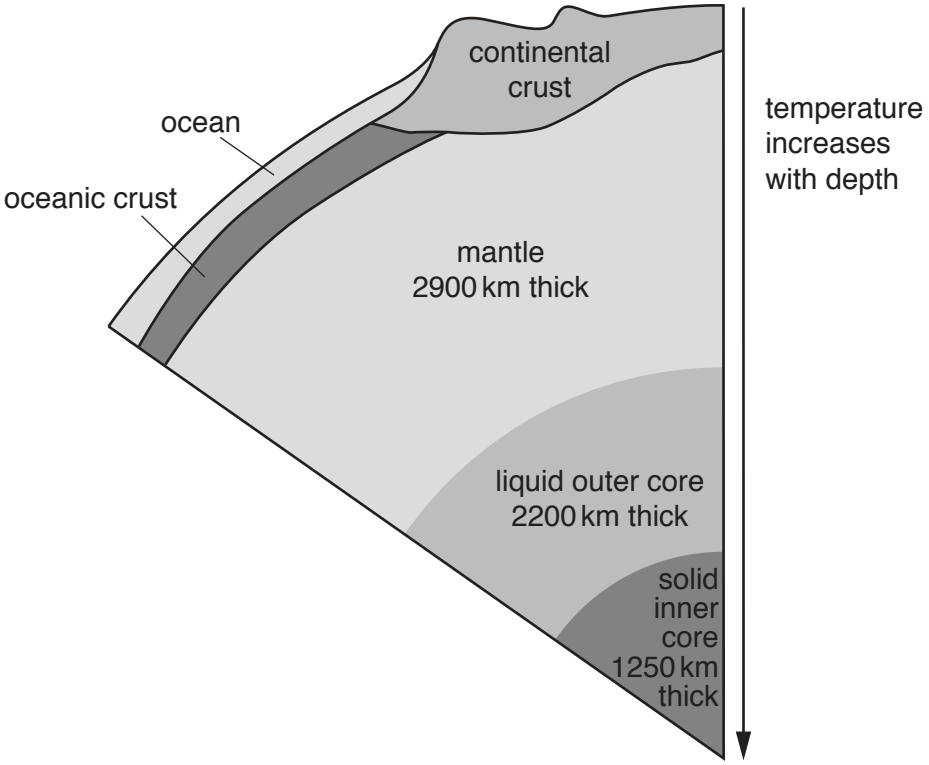
Electronic calculators may be used.
You may lose marks if you do not show your working or if you do not use appropriate units.

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.

CAMBRIDGE International Examinations

1 The diagram shows the structure of the Earth and the approximate thickness of some of the layers.



(a) (i) Use the diagram to describe the core of the Earth.

.....

.....

.....

.....[2]

(ii) The average radius of the Earth is 6400 km.

Use the information on the diagram to calculate the approximate thickness of the Earth's crust.

..... km [1]

(b) Name the **three** main types of rock found in the Earth's crust.

1.....

2.....

3.....
[1]

(c) Explain how heat in the Earth's crust can be used to generate electricity in a geothermal power station.

.....

.....

.....

.....

.....

.....[3]

(d) Geothermal energy can be **one** benefit of living near a volcano.

Suggest other benefits of living near a volcano.

.....

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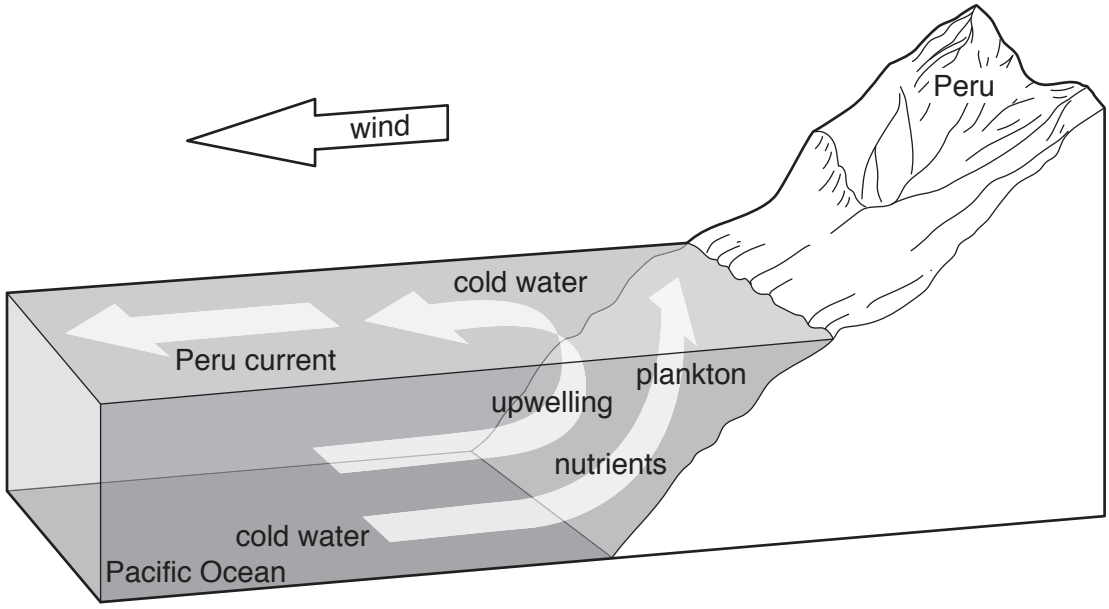
.....[3]

[Turn over

2 The diagrams show the coast of Peru in South America in a normal year and in an El Niño year.

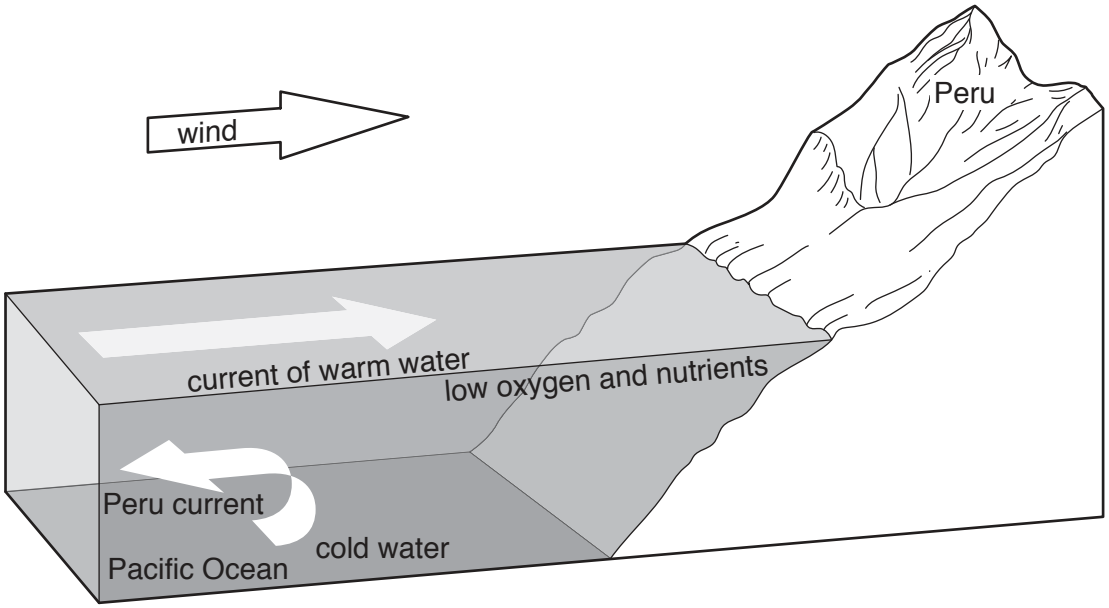
normal year

west **east**



El Niño year

west **east**



(a) (i) Use the diagrams and the words to complete the passage.

cold **oxygen** **Peru** **warm** **water**

In a normal year cold …… upwells off the coast of ……

in South America. This water is rich in nutrients, carbon dioxide and …… .

In an El Niño year the flow of water reverses and a …… current replaces

the …… current.

[3]

(ii) Use the diagram to describe why upwelling occurs.

.....

.....[1]

(iii) Suggest reasons why few fish are caught in an El Niño year.

.....

.....

.....

.....[2]

(b) Explain **two** advantages and **two** disadvantages of using modern technology for ocean fishing.

advantage 1 .....

.....

advantage 2 .....

.....

disadvantage 1 .....

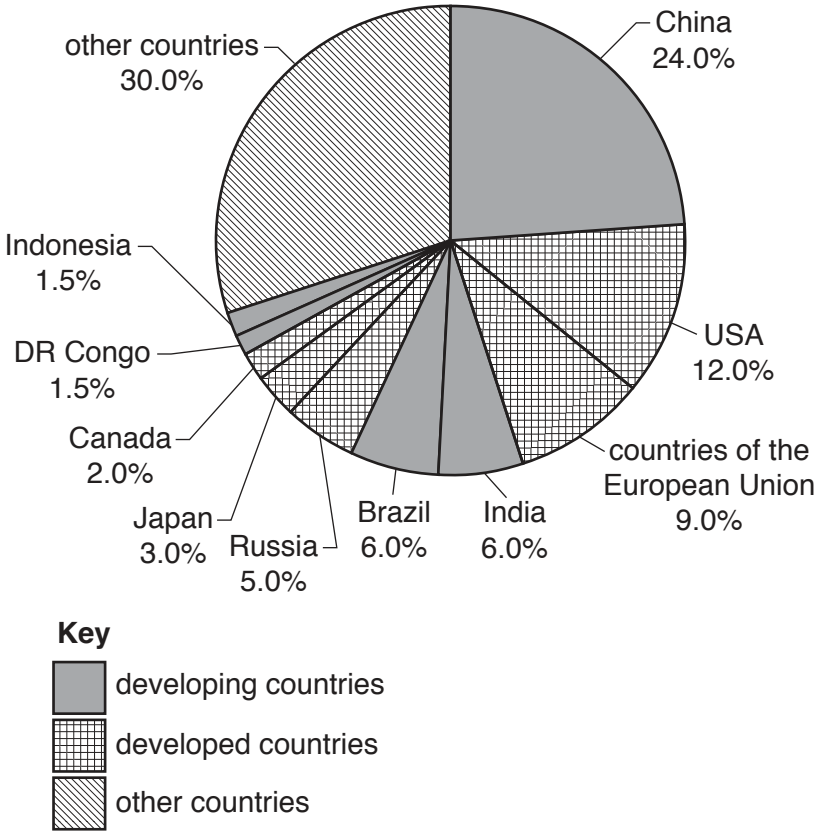
.....

disadvantage 2 .....

.....

[4]

3 The pie graph shows global greenhouse gas emissions in 2012. Some of the countries responsible for emissions are named.



(a) Use the pie graph to answer these questions.

(i) Name the country responsible for almost one quarter of global greenhouse gas emissions in 2012.

.....[1]

(ii) Name the developed country responsible for the largest percentage of global greenhouse gas emissions in 2012.

.....[1]

(iii) Calculate the total percentage of greenhouse gas emissions from the developing countries that are named in the pie graph.

.....% [1]

(b) Explain why the amount of carbon dioxide in the atmosphere is increasing.

.....

.....

.....

.....

.....

.....[3]

(c) Describe ways in which people could reduce their contribution to carbon dioxide emissions.

.....

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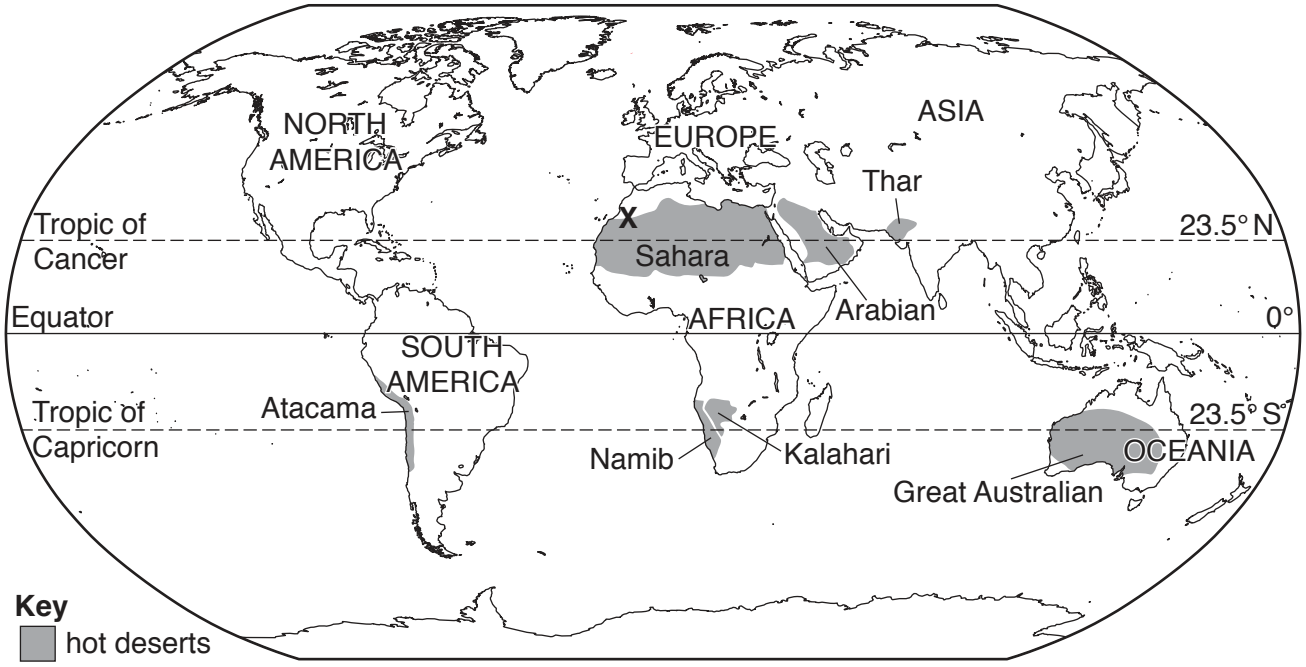
.....[4]

[Turn over

4 The map shows some of the hot deserts of the world.



(a) Use the map to answer these questions.

(i) Name **two** hot deserts south of the Equator.

1 .....

2 .....

[1]

(ii) Describe the location of the Sahara desert.

.....

.....

.....

.....[2]

(iii) In 2016 a solar power station was completed in Morocco at location **X** on the map.

Explain why location **X** is a good place for a solar power station.

.....

.....

.....

.....[2]

(b) Before the solar power station was built, Morocco depended on fossil fuels for 98% of the country's energy.

(i) Name **two** renewable energy sources other than solar power.

1 .....

2 .....
[1]

(ii) Name **one** source of energy that is an alternative to fossil fuels and to renewable energy.

.....[1]

(c) Suggest disadvantages of solar power as a source of energy.

.....

.....

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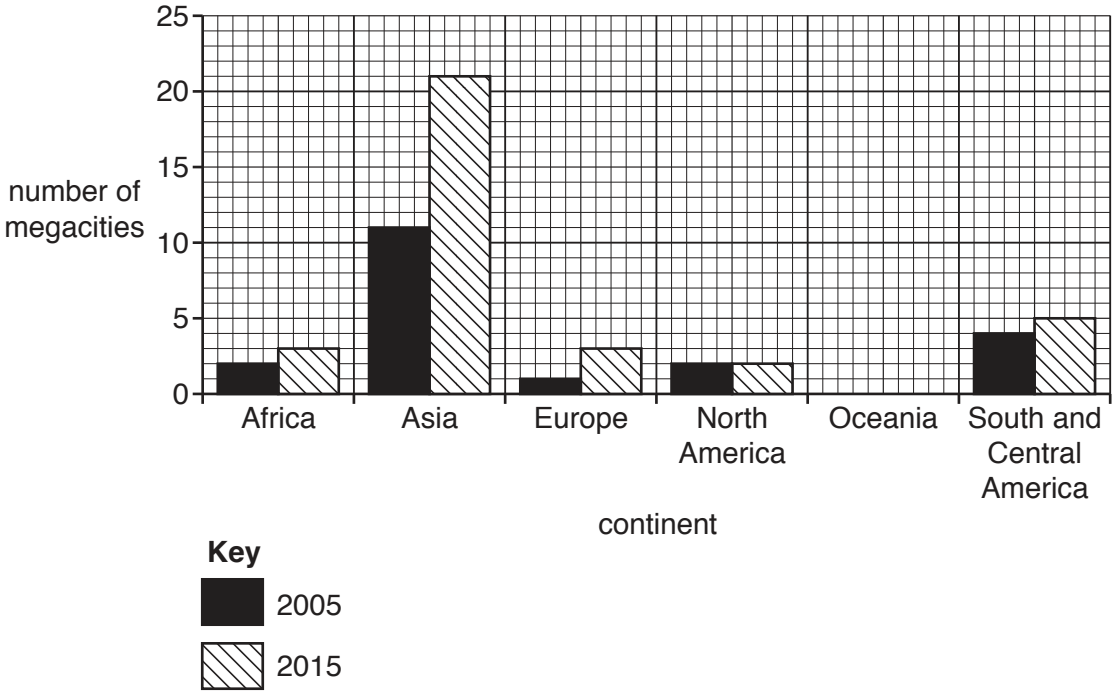
.....

.....

.....[3]

5 The bar graph shows the number of megacities in the world in 2005 and in 2015. A megacity is a city with a population of over 10 million people.



(a) (i) Name the **two** continents where there has been no change in the number of megacities between 2005 and 2015.

1 .....

2 .....

[1]

(ii) Calculate the percentage increase in megacities in Asia between 2005 and 2015.

Show your working.

..... % [2]

(b) The populations of megacities are growing faster in developing countries than in developed countries as a result of push and pull factors.

(i) Explain what is meant by the terms *push factor* and *pull factor*.

push factor .....

.....

pull factor.....

.....

[2]

(ii) Explain **three** pull factors that would result in rapid population growth in megacities.

pull factor 1.....

explanation.....

.....

pull factor 2.....

explanation.....

.....

pull factor 3.....

explanation.....

.....

[3]

(c) Describe **two** environmental problems caused by rapid population growth in cities.

1.....

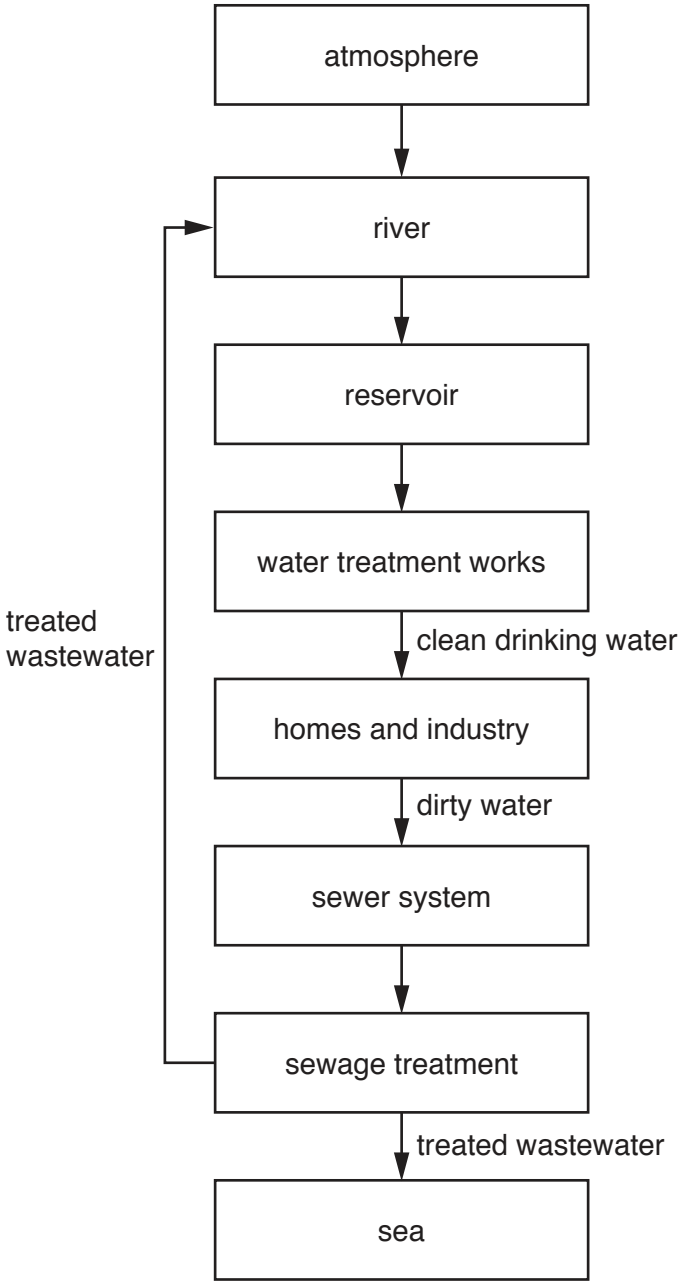
.....

2.....

.....

[2]

6 The diagram shows information about the work of a water treatment company.



(a) (i) Use the diagram to name **one** natural and **one** artificial store of water.

natural store .....

artificial store .....
[1]

(ii) Use the diagram to describe the work the water treatment company does.

.....

.....

.....

.....[2]

(b) In some parts of the world people use untreated water from rivers.

(i) Explain why untreated water from rivers may not be safe to use.

.....

.....

.....

.....

.....

.....[3]

(ii) Mosquitoes breed in water and transmit disease.

Name **one** disease transmitted by mosquitoes.

.....[1]

(c) Oceans contain 97% of the Earth's water.

Suggest reasons why only a few countries use desalination to supply fresh water.

.....

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.....[3]

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