



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE
NAME

CENTRE
NUMBER

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NUMBER

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ENVIRONMENTAL MANAGEMENT

0680/13

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.

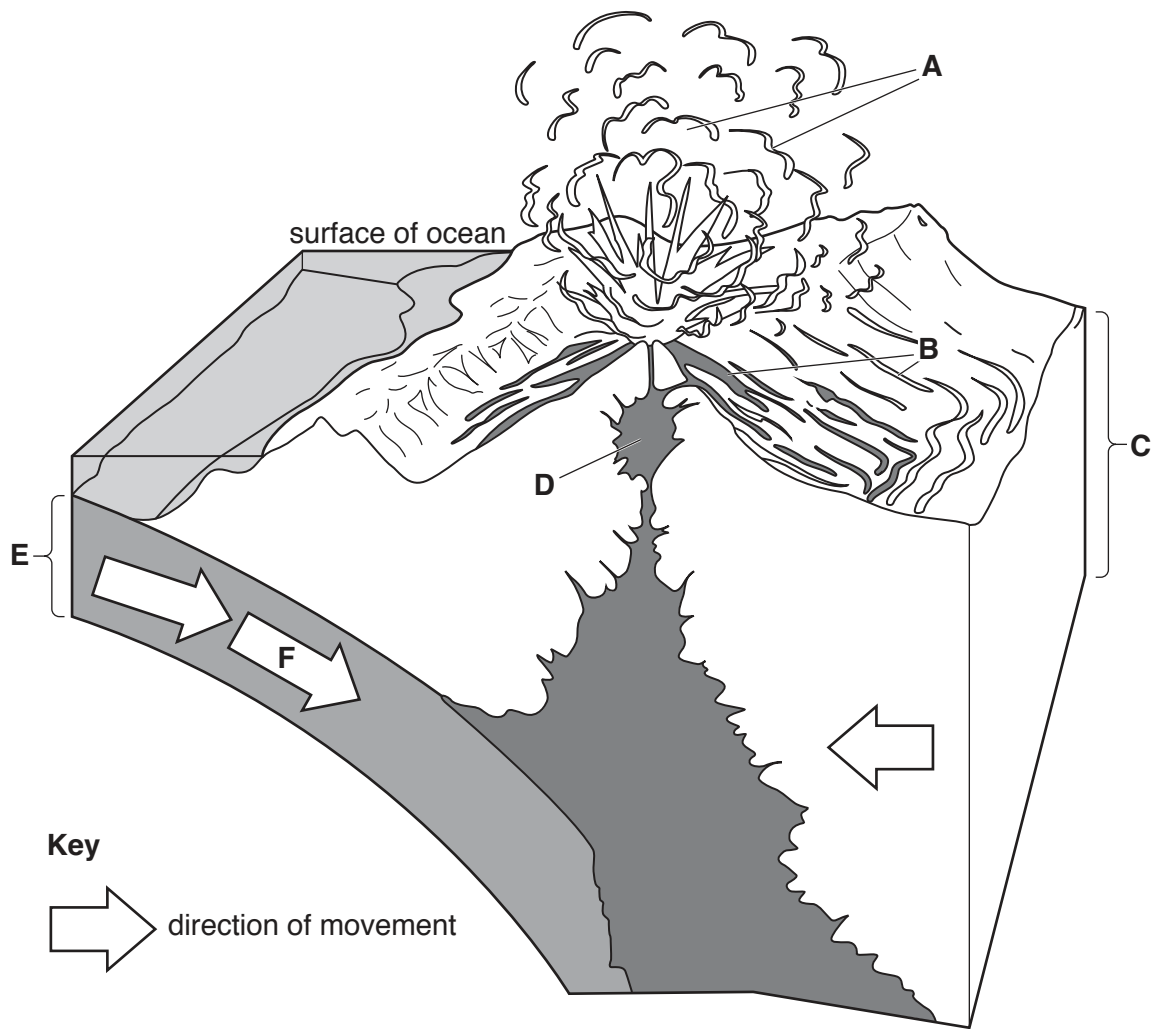
The number of marks is given in brackets [] at the end of each question or part question.

This document consists of **14** printed pages and **2** blank pages.



2

1 The diagram shows a volcano erupting on a plate boundary.



(a) (i) Complete the table using letters **A** to **F** from the diagram.

feature	letter
continental plate	
ash and gas	
lava and mud	
magma	
oceanic plate	
subduction	

[3]

3

(ii) Name the type of plate boundary shown in the diagram.

.....[1]

(b) Explain how volcanoes are formed at this type of plate boundary.

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

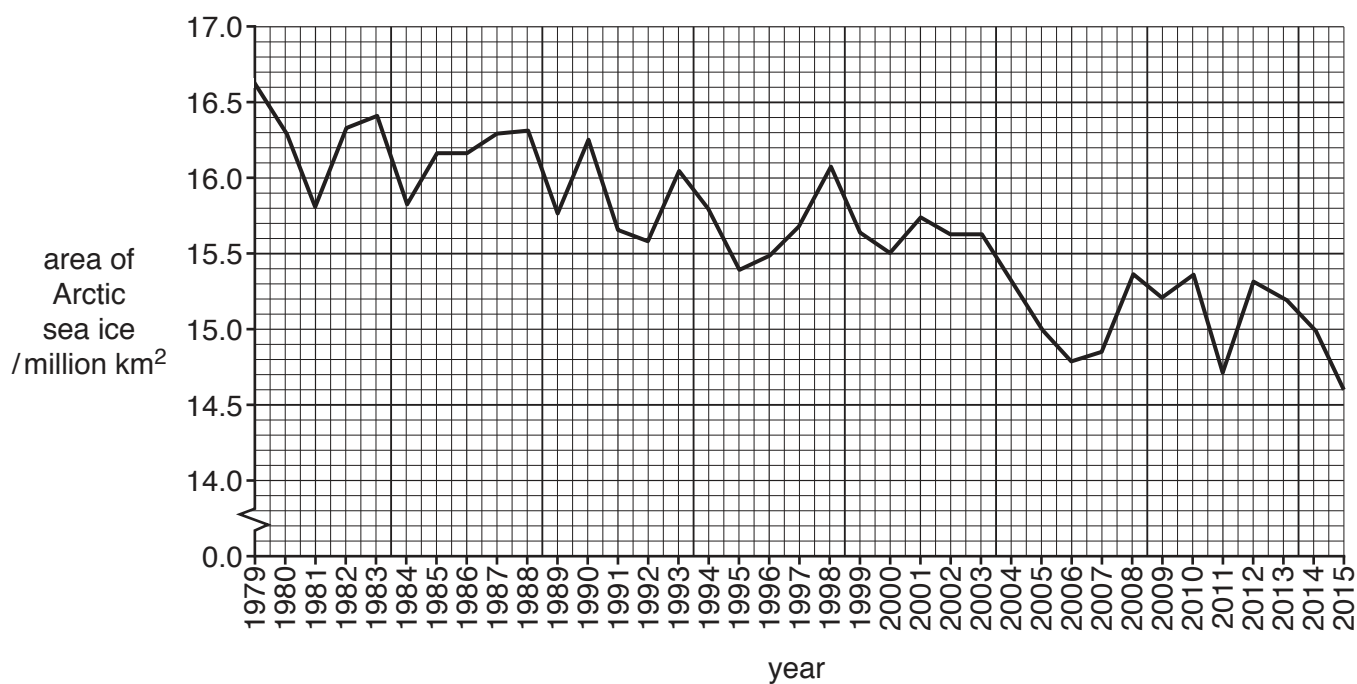
(c) Suggest **three** hazards for people living on the slopes of an active volcano.

1
.....
2
.....
3
.....[3]

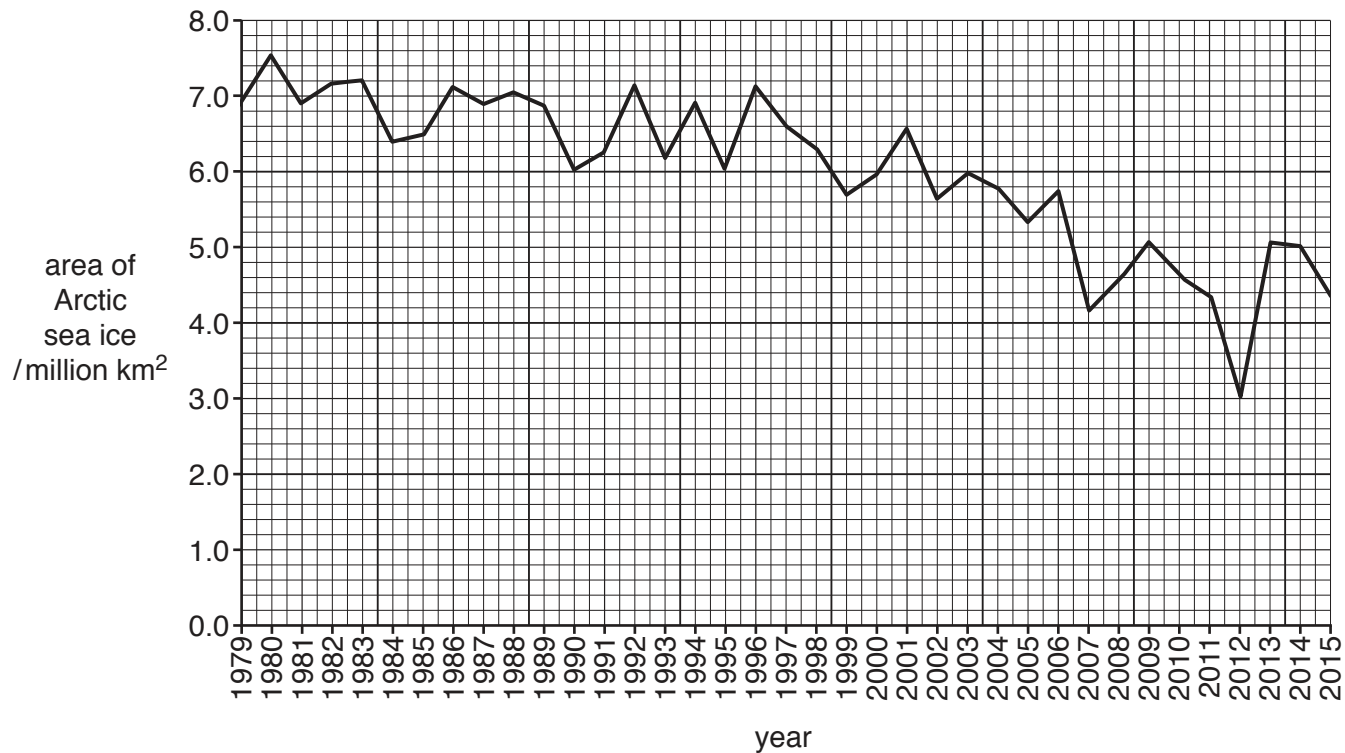
4

- 2 The Arctic Ocean is in the Northern Hemisphere. Graphs **A** and **B** show the maximum and minimum area of sea ice in the Arctic Ocean between 1979 and 2015.

Graph A, the maximum area of Arctic sea ice



Graph B, the minimum area of Arctic sea ice



5

- (a) (i) State the year with the greatest maximum area of sea ice.

.....[1]

- (ii) State the minimum area of sea ice in 2012.

.....[1]

- (iii) Suggest in which month the data for graph **B** was likely to have been collected.

Circle your answer.

March

May

September

December

[1]

- (iv) State the trend shown in both graphs.

.....[1]

- (b) Suggest **three** impacts of rising sea levels.

1

.....

2

.....

3

.....

[3]

- (c) Explain how human activities alter the composition of the atmosphere.

.....

.....

.....

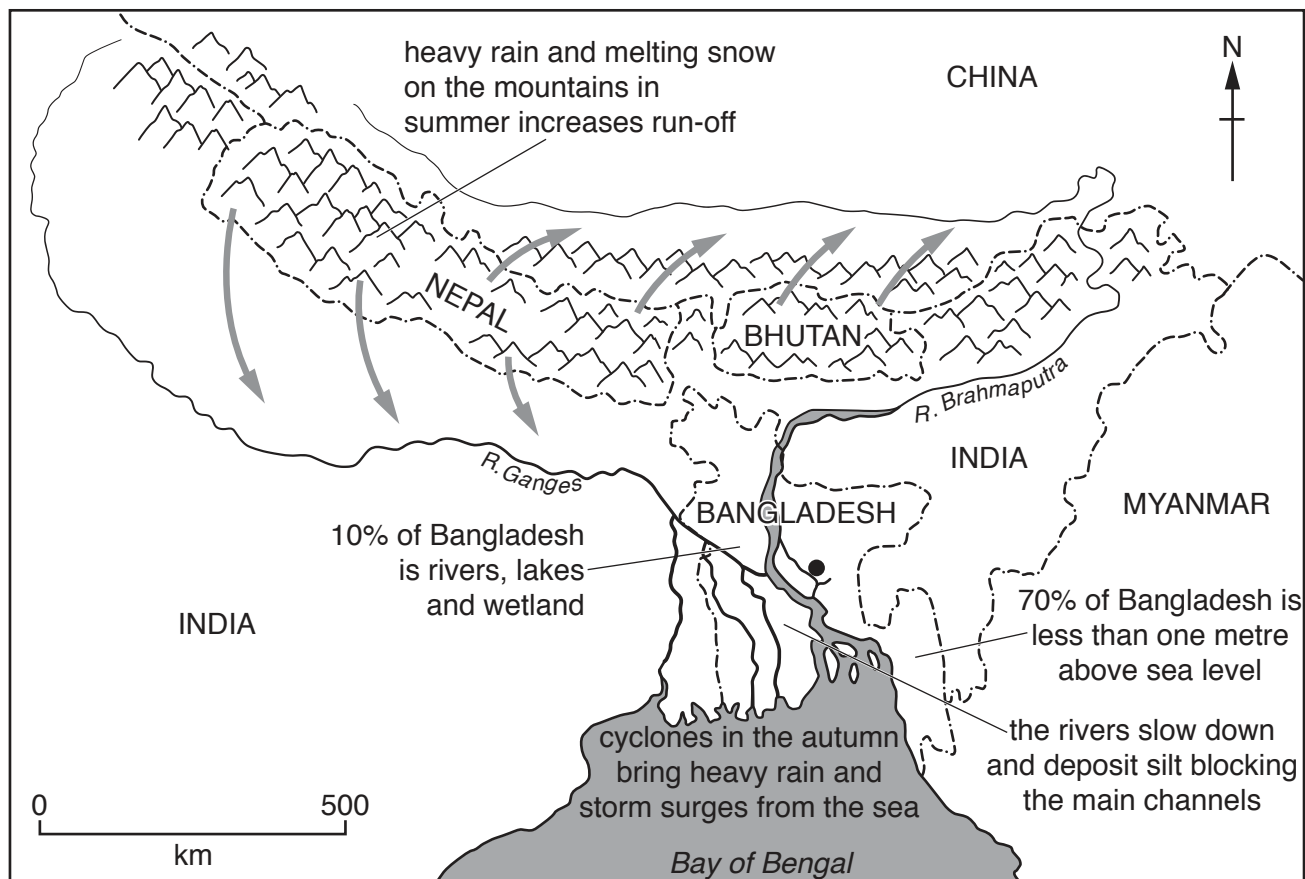
.....

.....

.....[3]

6

3 The map shows information about flooding in Bangladesh.



Key

● capital city

mountains

run-off from mountains

international boundary

(a) Use information on the map to describe **three** reasons for floods in Bangladesh.

- 1
- 2
- 3

[3]

7

- (b) Explain how deforestation in the mountains shown on the map could increase flooding in Bangladesh.

.....

.....

.....

.....

.....

.....

.....

.....[4]

- (c) Tree planting is **one** strategy to reduce the impact of flooding.

Suggest **one** other strategy.

.....

.....[1]

- (d) Flooding increases the risk of water-related diseases.

Suggest **two** strategies to control water-related diseases.

1

.....

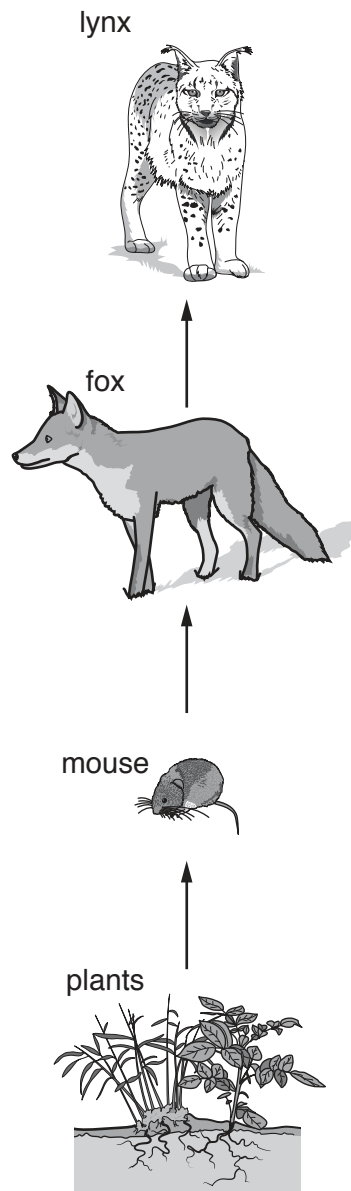
2

.....

[2]

8

4 The diagram shows a food chain.



(a) Name a predator, consumer and producer from the food chain diagram.

predator

consumer

producer

[3]

(b) State **four** physical factors that affect an ecosystem.

- 1
- 2
- 3
- 4.....

[4]

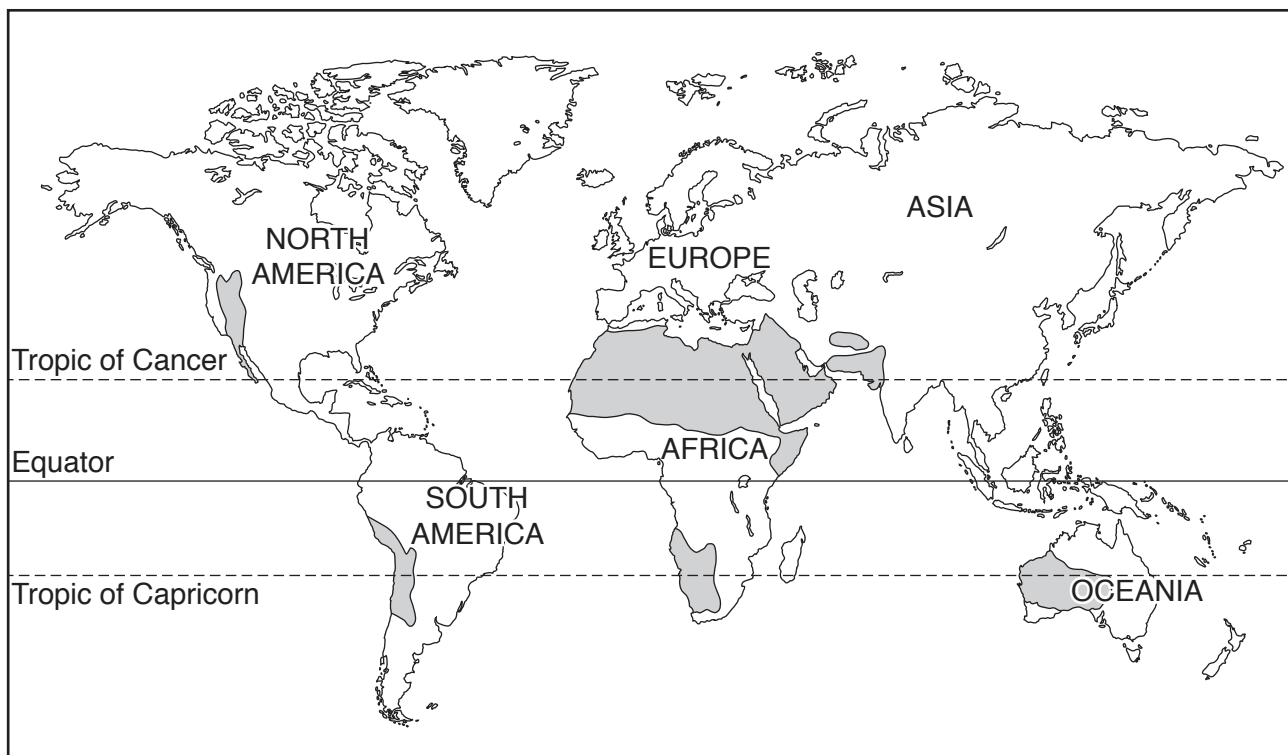
(c) Suggest ways in which wildlife might be affected by deforestation.

-
-
-
-
-
-

[3]

10

5 The map shows areas in the world with a hot desert climate.



Key

 areas with a hot desert climate

(a) Describe the distribution of areas with a hot desert climate shown on the map.

.....

.....

.....

.....

.....

.....[3]

11

- (b) (i) Suggest why few countries in hot desert areas use desalination for fresh water supplies.

.....

.....

.....

.....[2]

- (ii) Suggest **one** environmental problem caused by desalination.

.....

.....[1]

- (c) Describe ways, other than by desalination, for improving the quantity of fresh water available.

.....

.....

.....

.....[2]

- (d) Explain why some countries have plentiful supplies of fresh water.

.....

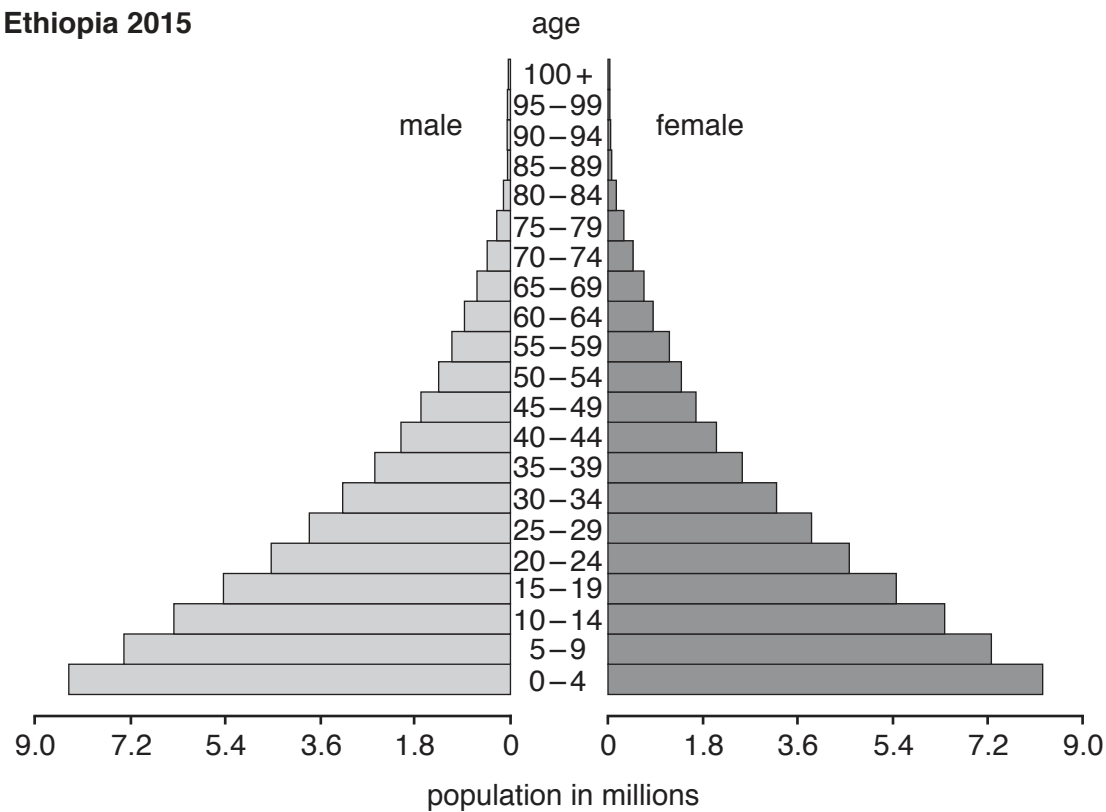
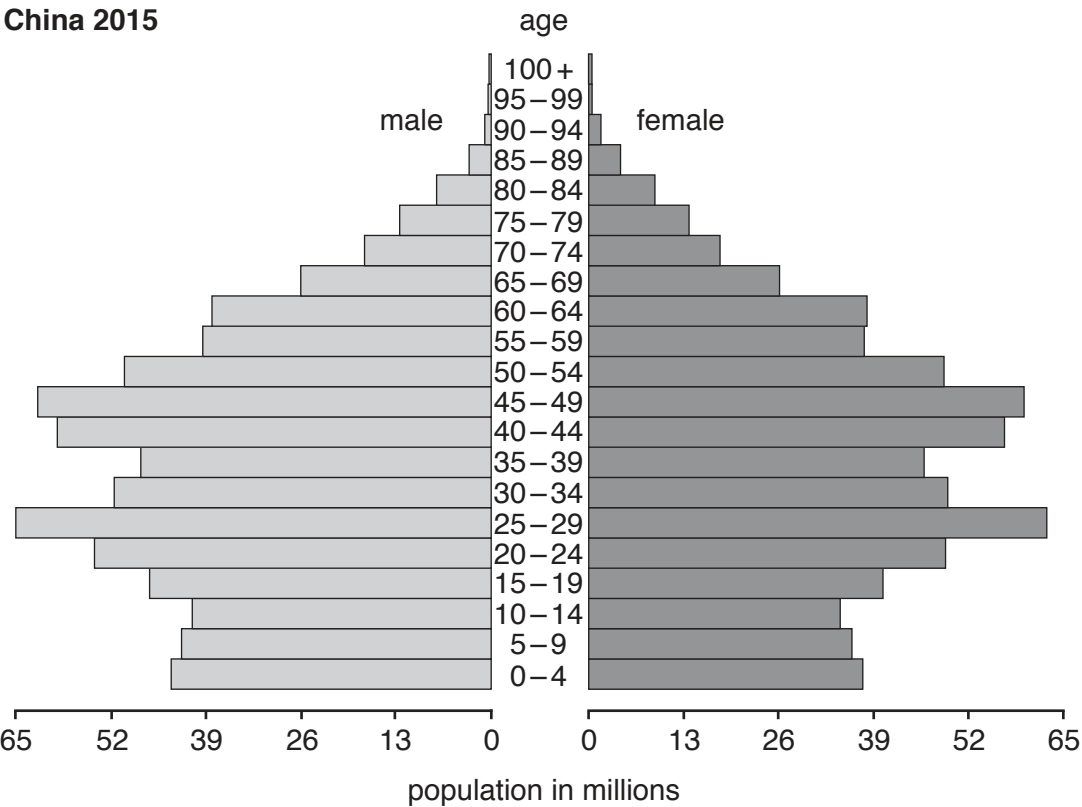
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.....

.....[2]

12

6 The diagram shows three population pyramids for 2015.





(a) Use the 2015 population pyramids to answer these questions.

(i) State the country with the largest population under 15 years of age.

..... [1]

(ii) State the country with a steadily increasing birth rate.

..... [1]

(iii) Rank the three countries in order of population of males in the age group 25 to 29.

	rank of population of males in the age group 25 to 29	country
highest	1	
↓	2	
lowest	3	

[1]

(b) State what is meant by the term *infant mortality rate*.

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

14

- (c) (i) In 1979, China introduced a one-child per family policy to manage population growth. In 2015, the government in China ended its one-child policy.

Suggest reasons why.

.....

.....

.....

.....

.....

.....[3]

- (ii) Describe **three** other strategies for managing population growth.

1

.....

2

.....

3

.....[3]

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