



**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**

**0680/12**

Paper 1

**February/March 2016**

**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.

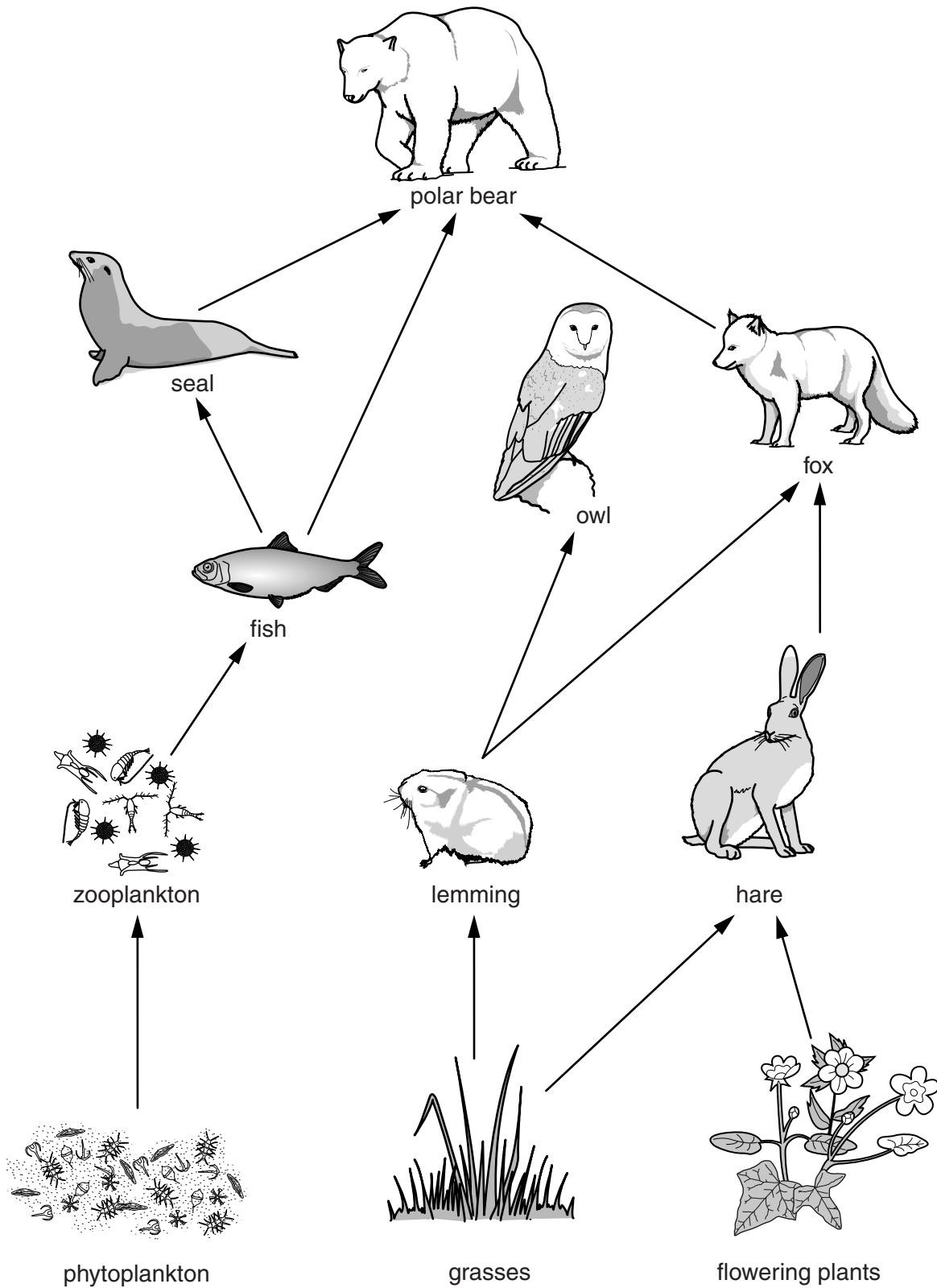
The number of marks is given in brackets [ ] at the end of each question or part question.

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



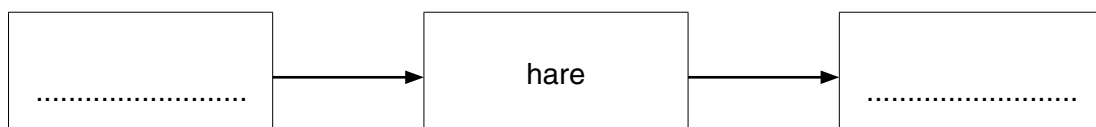


2 Look at the diagram below, which shows part of a food web in the tundra.



(a) (i) Use the diagram to complete the food chain below.

[1]



(ii) State what the food web shows the polar bears could feed on if there are not enough seals.

.....[1]

(iii) State the largest number of feeding (trophic) levels shown in the food web.

.....[1]

(iv) The arrows in the food web show the flow of energy.

State and explain what happens to the amount of energy passing along a food chain in this ecosystem.

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

(b) State and explain **two** characteristics of vegetation in the tundra.

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

(c) Scientists have reported that temperatures are increasing in the tundra.

Suggest how increasing temperatures might affect vegetation in the tundra.

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



(b) Suggest reasons why some countries do **not** want nuclear power stations.

.....

.....

.....

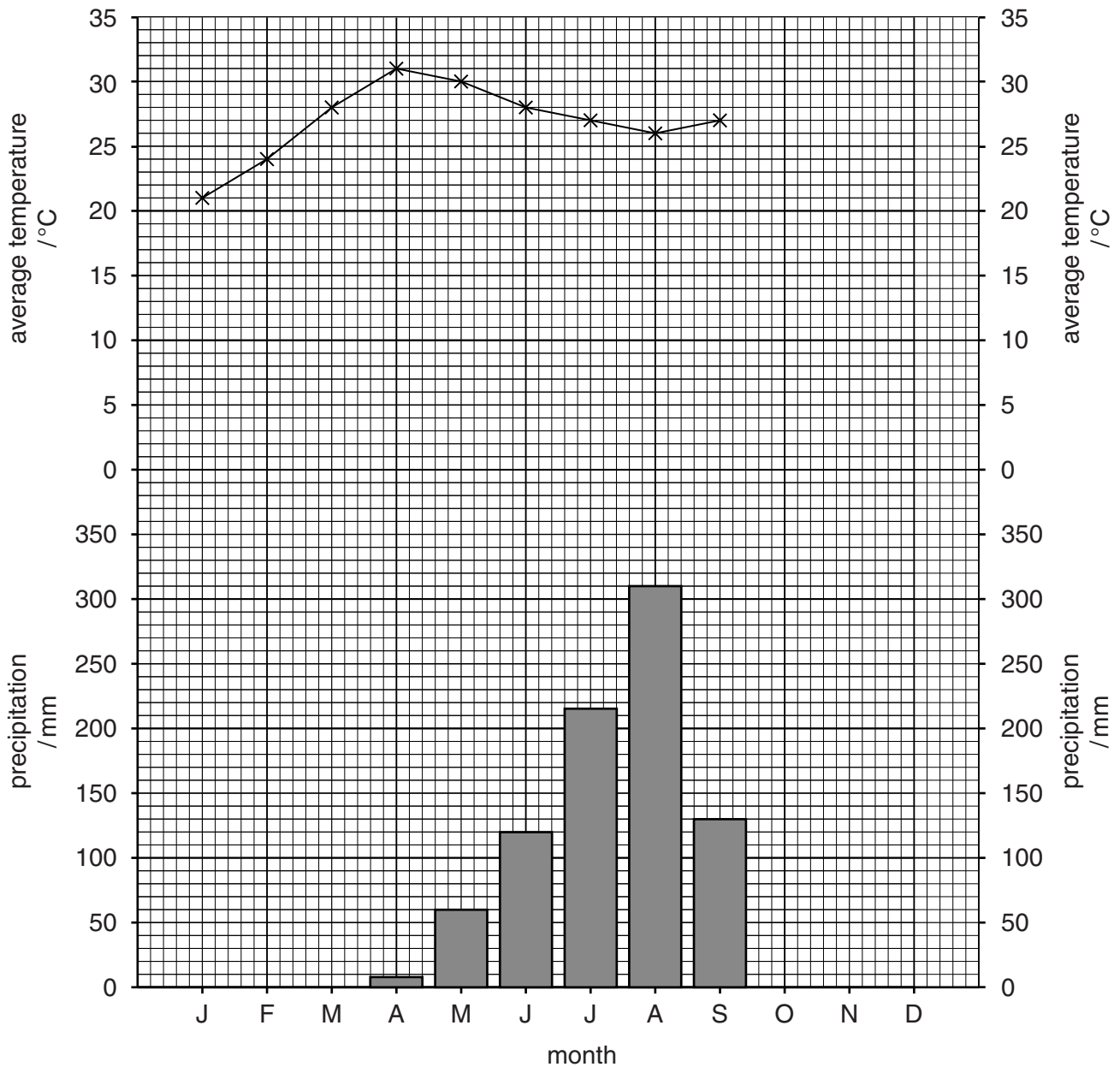
.....

.....

.....

.....[3]

4 Look at the climate graph below for a weather station.



(a) (i) Complete the graph using these figures for October, November and December. [3]

month	average temperature/°C	precipitation/mm
October	28	18
November	26	10
December	24	0

(ii) Circle the type of climate shown in the graph. [1]

desert

equatorial

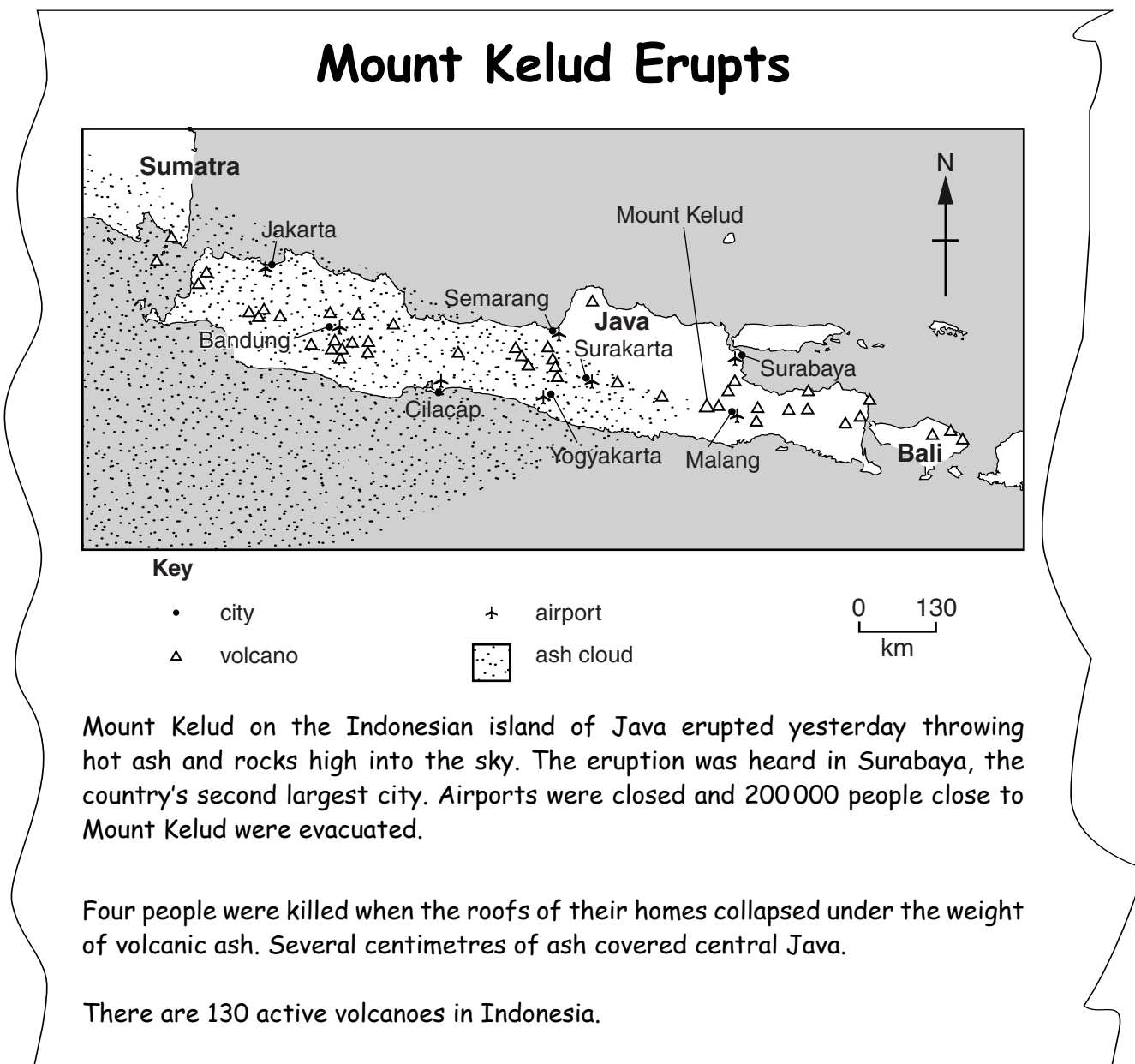
savanna

tundra





- 5 Look at the newspaper report below. The map shows the location of some of the volcanoes in Java.



(a) Use the newspaper report to answer these questions.

- (i) State the direction in which ash from the volcano travelled.

.....[1]

- (ii) Determine the distance of Surabaya from Mount Kelud.

..... km [1]

(iii) The island of Java has 45 active volcanoes.

Calculate the percentage of Indonesia's active volcanoes in Java.

..... % [1]

(b) Suggest reasons why, during the eruption:

some of the airports on Java were closed .....

.....  
.....  
.....  
.....

thousands of people were evacuated. ....

.....  
.....  
.....  
.....

[3]

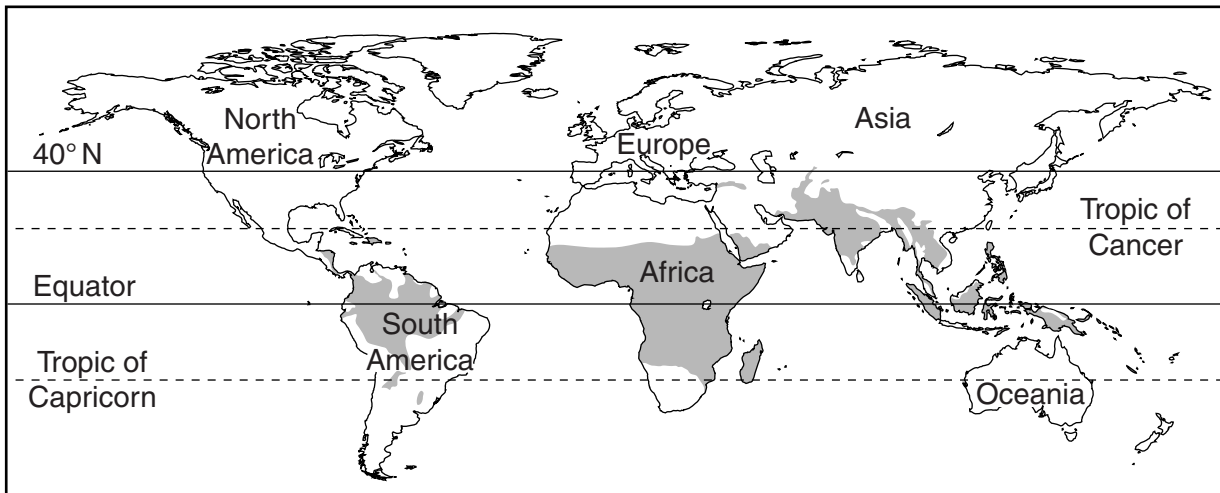
(c) Java is one of the most densely populated places in the world.

Suggest reasons why millions of people live close to active volcanoes.

.....  
.....  
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.....  
.....  
.....  
.....  
.....

[4]

6 Look at the map below, which shows the areas in the world where malaria occurs.



**Key**

■ areas where malaria occurs

(a) (i) Describe the distribution of malaria shown on the map.

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

(ii) State and explain **one** way of controlling malaria.

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

(iii) Malaria is a water-related disease.

State the names of **two** other water-related diseases.

1 .....

2 .....

[2]







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