



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE
NAME

CENTRE
NUMBER

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CANDIDATE
NUMBER

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ENVIRONMENTAL MANAGEMENT

0680/22

Paper 2

February/March 2016

1 hour 45 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 **both** 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 **12** printed pages.

(ii) Describe the climate of Krasnoyarsk.

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.....[4]

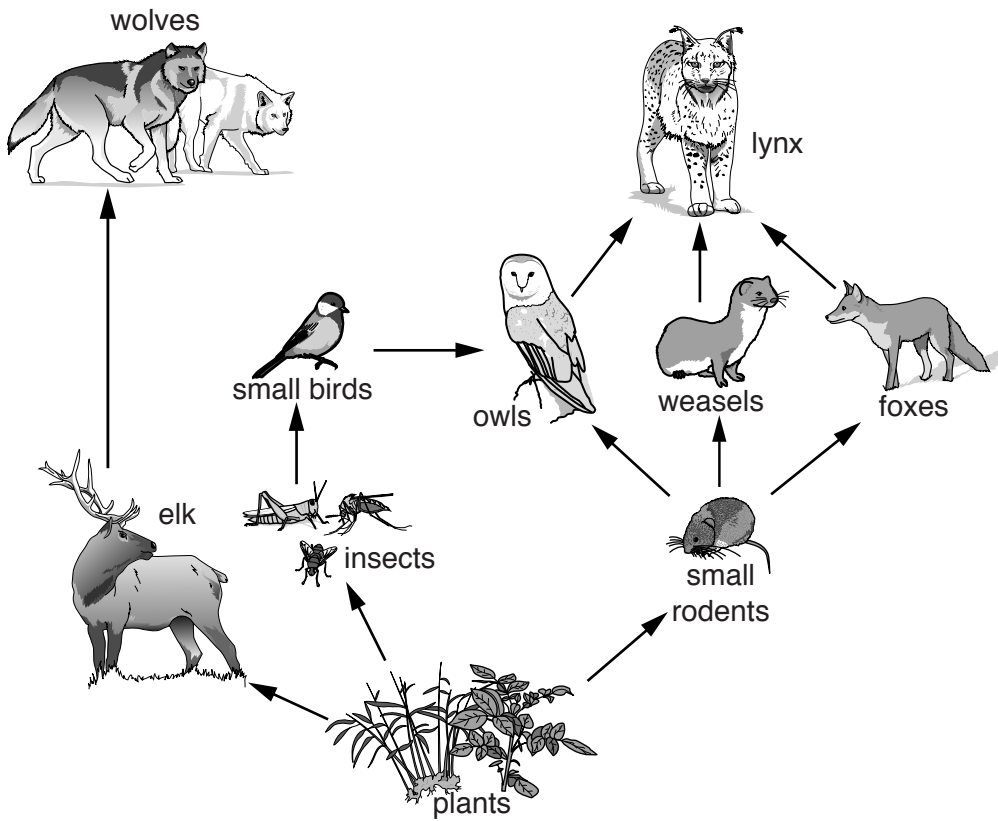
(iii) Temperatures need to be at least 6°C for plants to grow. State the length of the growing season in Krasnoyarsk.

..... months [1]

(iv) Suggest why areas with a cool temperate climate have a low human population.

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.....[2]

(d) Look at the diagram of a food web in a coniferous forest ecosystem.



(i) Explain the meaning of the term *ecosystem*.

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(ii) Explain, using examples from the diagram, the difference between a producer and a consumer.

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(iii) Explain the roles of soil organisms, such as bacteria, worms and fungi, in the ecosystem.

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.....[3]

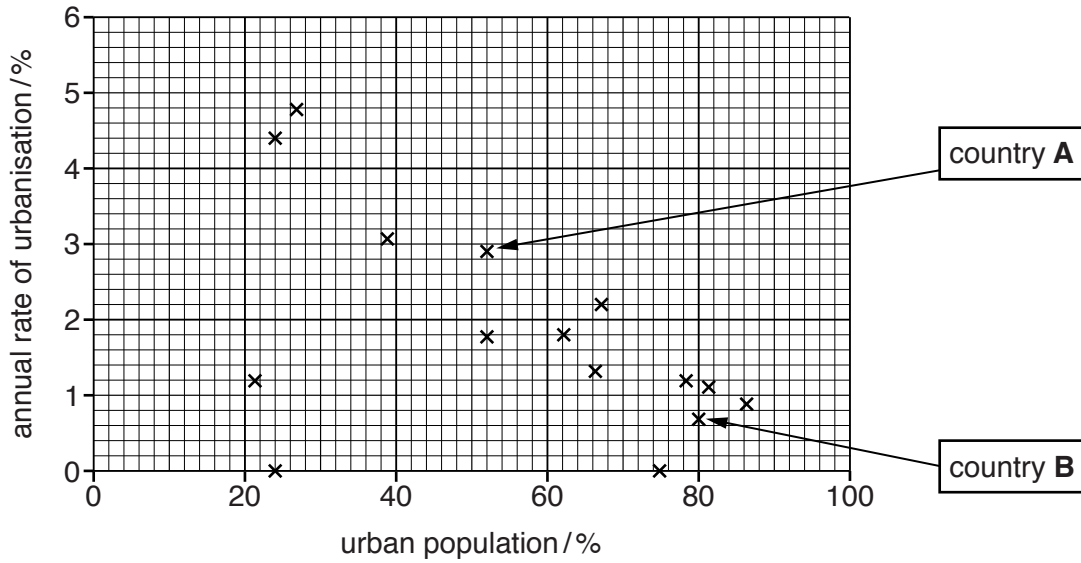
(iv) Some parts of the coniferous forest are under threat from logging. State **two** uses of the wood.

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.....[2]

(v) Describe the effects of logging on the coniferous forest ecosystem shown in the food web diagram.

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- 2 (a) Look at the graph, which shows information about urbanisation. Each cross on the graph indicates a country. For example, country A has 52% of its population living in urban areas and an annual rate of urbanisation of 2.9%.



- (i) State the urban population and the annual rate of urbanisation for country B.

urban population %

annual rate of urbanisation %

[2]

- (ii) On the graph mark the position of Lesotho, which has 28% urban population and 3.6% annual rate of urbanisation. [1]

- (iii) Describe the relationship between urban population and the annual rate of urbanisation shown on the graph.

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 [1]

- (iv) Suggest **one** reason for the relationship you have described in (iii).

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 [1]

(iii) Explain why cities in developing countries are growing rapidly.

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(iv) Explain why the rapid growth of cities often causes high levels of air pollution and water pollution.

air pollution

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water pollution

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[8]

