OXFORD AQA

INTERNATIONAL QUALIFICATIONS

Please write clearly in block capitals.

Centre number | | | | | | Candidate number | | | | |

Surname _____

Forename(s) _____

Candidate signature _____

I declare this is my own work.

INTERNATIONAL A-LEVEL

GEOGRAPHY

Paper 3 Physical Geography 2

Wednesday 12 June 2024 07:00 GMT Time allowed: 1 hour 30 minutes

Materials

For this paper you must have:
- a ruler with millimetre measurements
- a calculator, which you are expected to use where appropriate.

Instructions
- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do **not** write outside the box around each page or on blank pages.
- All working must be shown.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information
- The marks for questions are shown in brackets.
- The maximum mark for this paper is 80.
- You may use a bilingual dictionary for this exam.
- You may **not** use an English dictionary.

For Examiner's Use	
Question	Mark
1	
2	
3	
4	
5	
6	
7	
8	
TOTAL	

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Section A – Water, Carbon and Life on Earth

Answer **all** questions in the spaces provided.

You must answer **all** questions in **Section A**.

Only **one** answer per question is allowed.

For each question completely fill in the circle alongside the appropriate answer.

CORRECT METHOD

WRONG METHODS

If you want to change your answer you must cross out your original answer as shown.

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.

0 1 . 1 Which of the following is a definition of weathering?

[1 mark]

A Daily atmospheric changes that affect the amount of precipitation and temperatures in an area

B Dead organic substances breaking down into simpler organic or inorganic matter

C Rocks and landscapes break down over time due to exposure to conditions in the atmosphere and biosphere

D Water-based processes erode rocks and landscapes over time to change their appearance

0 1 . 2 'Precipitation does not reach the soil. Instead, it is held up by different forms of vegetation.'

Which of the following processes does this describe?

[1 mark]

A Evapotranspiration

B Infiltration

C Interception

D Stemflow

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0 1 . 3 Which of the following is a characteristic of a flood hydrograph?

[1 mark]

A Lag time is the difference between the start of the rainfall and discharge. ⬭

B Rainfall is measured in cumecs and discharge is measured in millimetres. ⬭

C The discharge line has a rising and falling limb. ⬭

D Time is usually recorded over the period of a whole year. ⬭

0 1 . 4 Which of the following describes the concept of negative feedback?

[1 mark]

A Change within a system causes energy to be lost from the system entirely. ⬭

B Change within a system impacts on another system in a different way. ⬭

C Change within a system intensifies the initial process. ⬭

D Change within a system slows or reverses the initial process. ⬭

0 1 . 5 'Life that exists on, above and below the Earth's surface and stores carbon.'

This describes which major carbon store?

[1 mark]

A Atmosphere ⬭

B Biosphere ⬭

C Cryosphere ⬭

D Lithosphere ⬭

5

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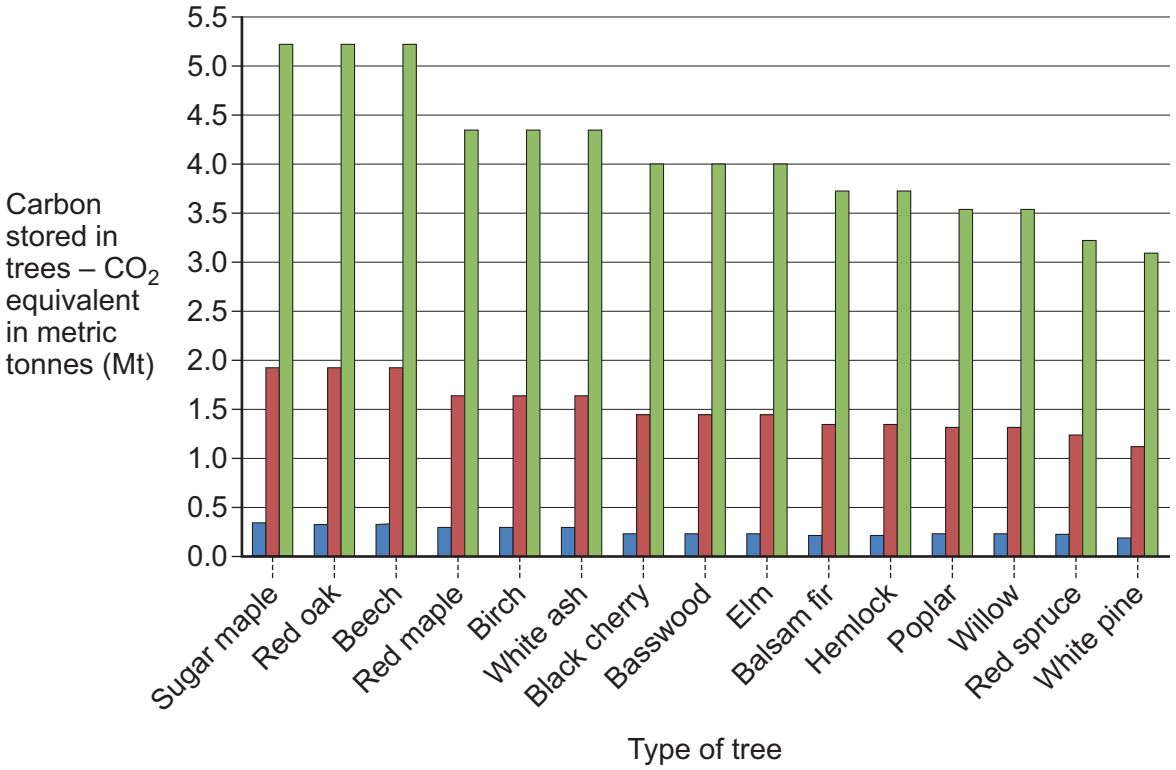
Figure 1 shows the amount of carbon stored within different tree species, with different diameters, based on a study in Vermont, USA.

Figure 1



0 2 Analyse the data shown in **Figure 1**.

[6 marks]

Do not write outside the box

Extra space

6

0 3 Evaluate **one or more** ways that humans can mitigate against the effects of climate change.

[9 marks]

Do not write outside the box

Extra space

9

0 4 ‘Over time, natural variations in water cycles have a greater effect than human changes.’

To what extent do you agree with this statement?

[20 marks]

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Turn over ▶

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END OF SECTION A

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Turn over for Section B

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ANSWER IN THE SPACES PROVIDED

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Section B – Ecosystems Under Stress

Answer **all** questions in the spaces provided.

You must answer **all** questions in **Section B**.

Only **one** answer per question is allowed.

For each question completely fill in the circle alongside the appropriate answer.

CORRECT METHOD

WRONG METHODS

If you want to change your answer you must cross out your original answer as shown.

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.

0 5 . 1 Which of the following is a description of a food web?

[1 mark]

A The continual cycling of organic and inorganic material within an ecological community

B The links between plants, animals, soils and climate within an ecological community

C The process that causes the biodiversity within an ecological community to change over time

D The transfer of energy through consumption within an ecological community

0 5 . 2 'An ecosystem reaches a balanced and stable state after organisms have developed in the area over time.'

This describes which of the following terms?

[1 mark]

A Climatic climax

B Plagioclimax

C Seral stage

D Sub-climax

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0 5 . 3 Which of the following is an example of a conservation strategy?

[1 mark]

A Allowing fishing to take place in a protected marine area ⬭

B Creating a road through a forest region ⬭

C Developing homes along a coastline with views of the sea ⬭

D Putting a ban in place to stop deforestation in a woodland area ⬭

0 5 . 4 Which of the following are **both** conditions that encourage algal blooms, affecting coral reefs?

[1 mark]

A Calm seas **and** low nutrient levels ⬭

B Cold seas **and** high nutrient levels ⬭

C Rough seas **and** low nutrient levels ⬭

D Warm seas **and** high nutrient levels ⬭

0 5 . 5 Which of the following describes a planned introduction of a new species to an ecosystem?

[1 mark]

A A new species of crab arrives in a coastal location after getting trapped in fishing nets. ⬭

B More deer are born in a woodland as wolves have been hunted by humans. ⬭

C Scientists release beavers into a river catchment area to help create natural flood barriers. ⬭

D The number of bison in a nature reserve increases due to the creation of a protected area. ⬭

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Figure 2 shows the number of species (plants and animals) lost in different provinces of mainland China between 1981 and 2005.

Figure 2

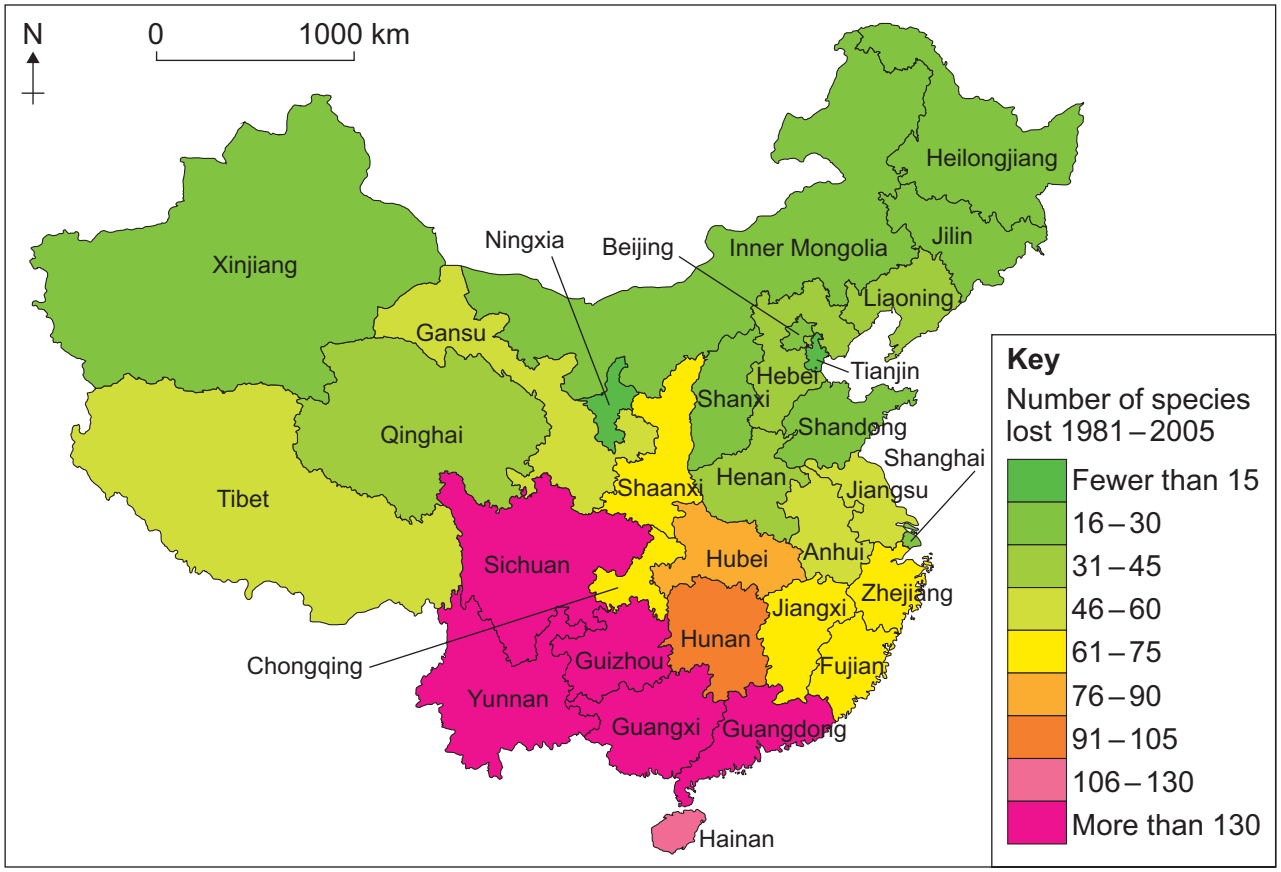

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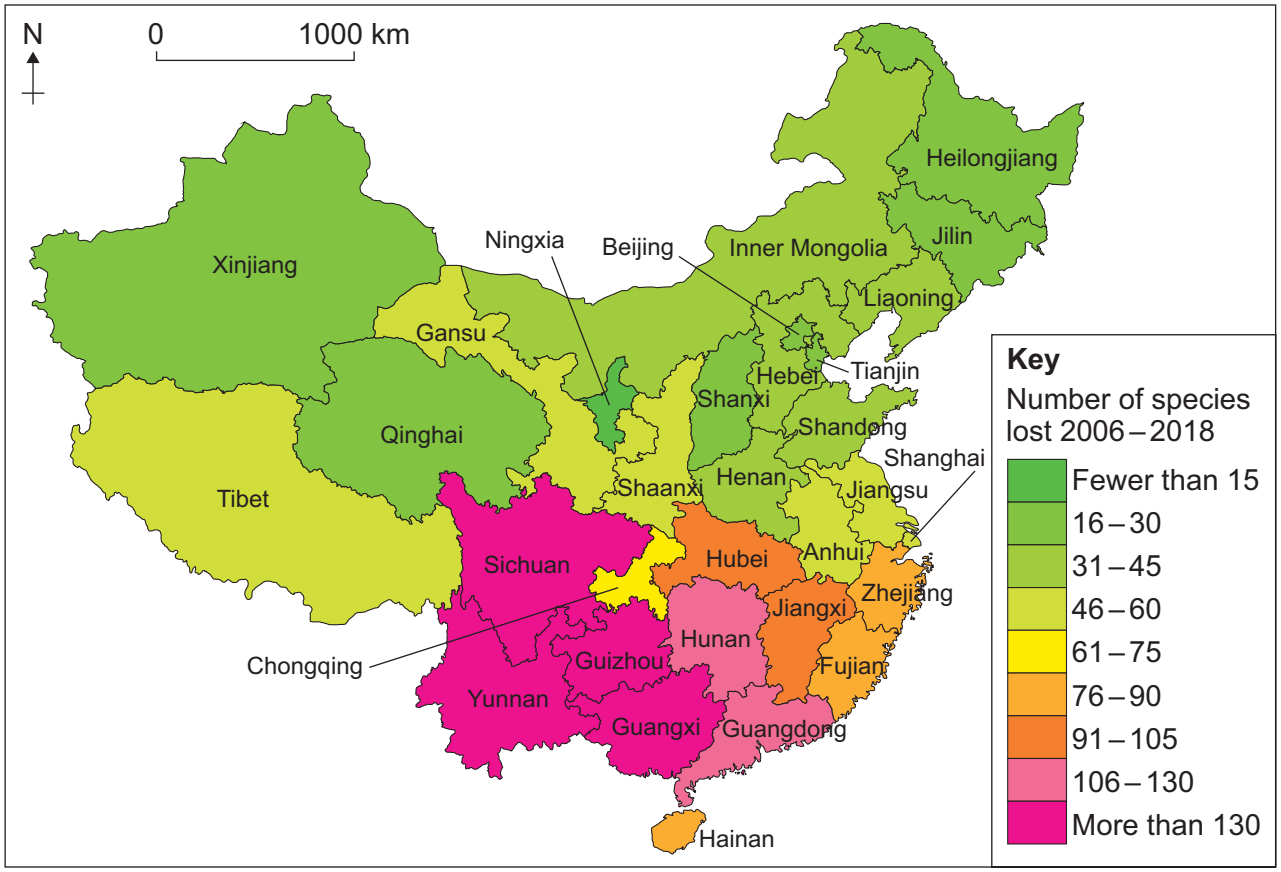
Figure 3 shows the number of species (plants and animals) lost in different provinces of mainland China between 2006 and 2018.

Figure 3



0 6 Analyse the data shown in **Figure 2** and **Figure 3**.

[6 marks]

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Extra space

6

0 7 Assess the ways in which flora and fauna have adapted to changes in an ecosystem at a local scale that you have studied.

[9 marks]

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Extra space

9

Turn over for the next question

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0 8 ‘As populations and economies continue to develop, ecosystems are more important than ever to humans.’

To what extent do you agree with this viewpoint?

[20 marks]

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20

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