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

Friday 10 January 2025 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.

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

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.

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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 ‘Water vapour in the air turns into water droplets, forming clouds.’

Which of the following processes does this describe?

[1 mark]

A Condensation

B Evaporation

C Evapotranspiration

D Precipitation

0 1 . 2 Which of the following is the smallest global store of water?

[1 mark]

A Atmosphere

B Cryosphere

C Hydrosphere

D Lithosphere

Do not write outside the box

0 1 . 3 ‘A small increase in global atmospheric carbon dioxide (CO_2) increases rates of photosynthesis, which results in faster plant growth and more carbon stored in the biosphere. This removes some of the CO_2 in the atmosphere.’

This is an example of which of the following?

[1 mark]

A Energy store ⬭

B Negative feedback ⬭

C Positive feedback ⬭

D System flow ⬭

0 1 . 4 What does a flood hydrograph represent?

[1 mark]

A The change in river discharge over time following a storm event ⬭

B The change in water balance over time ⬭

C The distribution of precipitation across a drainage basin ⬭

D The variation in flood frequency over time ⬭

0 1 . 5 Which of the following is an example of the relationship between the water cycle and carbon cycle in the atmosphere?

[1 mark]

A Carbon dioxide and water are released by plants during photosynthesis and this increases air temperatures. ⬭

B Carbon dioxide is released during volcanic eruptions which increases condensation rates and decreases rainfall. ⬭

C Carbon dioxide released by burning fossil fuels decreases air temperatures and increases rainfall. ⬭

D Carbon dioxide released into the air regulates air temperatures and affects the rate of evaporation. ⬭

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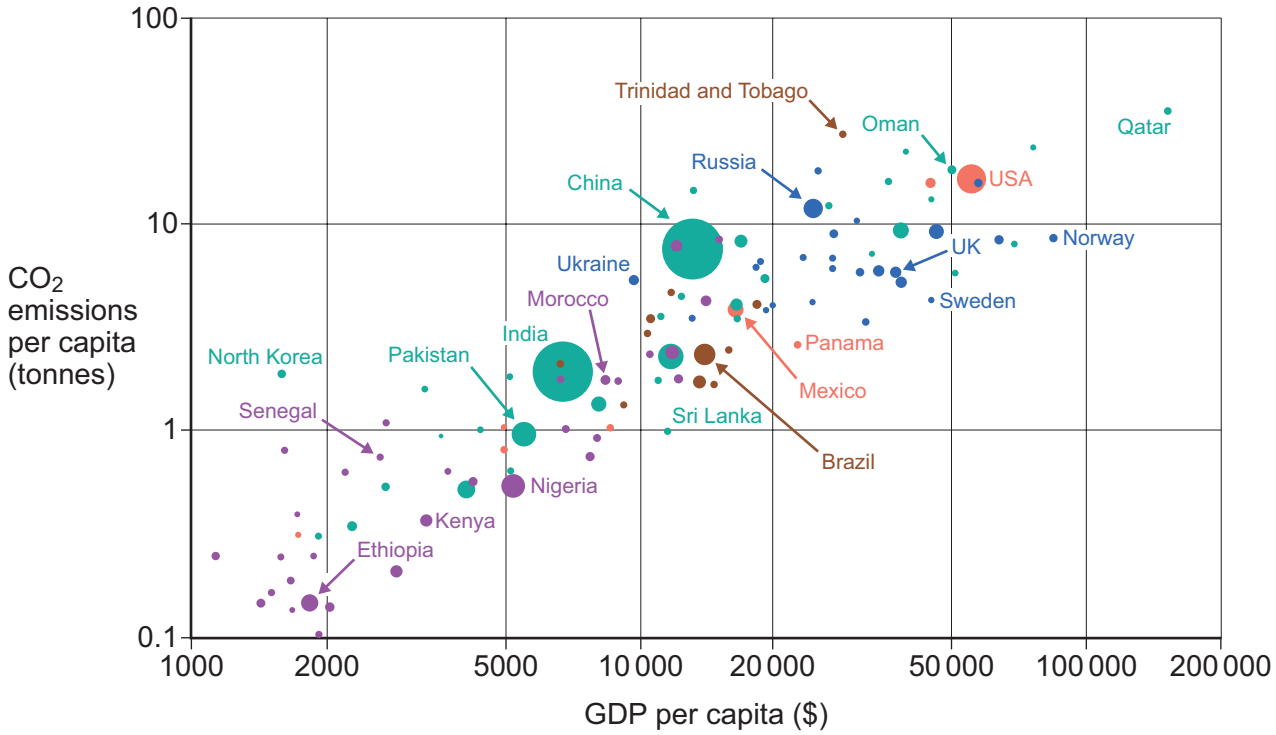
Figure 1 shows the relationship between GDP per capita and carbon dioxide (CO_2) emissions per capita, in selected countries (2018).

GDP measures the value of goods and services.

Figure 1



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

[6 marks]

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Extra space

6

0 3 Assess the impact(s) of changes in the carbon cycle on oceans.

[9 marks]

Do not write outside the box

Extra space

9

0 4 ‘Natural factors are more important than human factors in driving change in the stores and flows of the carbon cycle.’

To what extent do you agree with this statement?

[20 marks]

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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

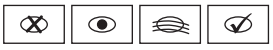
Answer **all** questions in the spaces provided.

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 an adaptation to high precipitation in tropical rainforests?

[1 mark]

A Plants have colourful flowers. ⬭

B Plants have leaves with pointed tips. ⬭

C Plants lose their leaves for part of the year. ⬭

D Plants produce seeds with wings. ⬭

0 5 . 2 Which of the following describes a characteristic of the climate of savanna grassland?

[1 mark]

A Both a wet and a dry season in the year ⬭

B Consistently dry through the year ⬭

C Moderate precipitation throughout the year ⬭

D Wet throughout the year ⬭

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0 5 . 3 In a food web, which organism occupies the lowest trophic level?

[1 mark]

A Decomposers ⬭

B Primary consumers ⬭

C Primary producers ⬭

D Secondary consumers ⬭

0 5 . 4 Which of the following all describe an ideal ocean condition for coral reef development?

[1 mark]

A Deep oceans, low acidity levels and water temperatures between 15 °C and 20 °C ⬭

B Shallow oceans, water temperatures between 33 °C and 39 °C and high salt content ⬭

C Unpolluted water, low salt content and water temperatures between 23 °C and 29 °C ⬭

D Water temperatures between 23 °C and 29 °C, low acidity levels and a high salt content ⬭

0 5 . 5 Which of the following defines 'seral stage' in a succession?

[1 mark]

A A phase in the development of the ecosystem as it continues towards climatic climax. ⬭

B The ecosystem has developed so that no further changes will occur in the succession. ⬭

C The predators feed off prey in the development of the food chain. ⬭

D Where continuous human activity has led to the creation of a plagioclimax. ⬭

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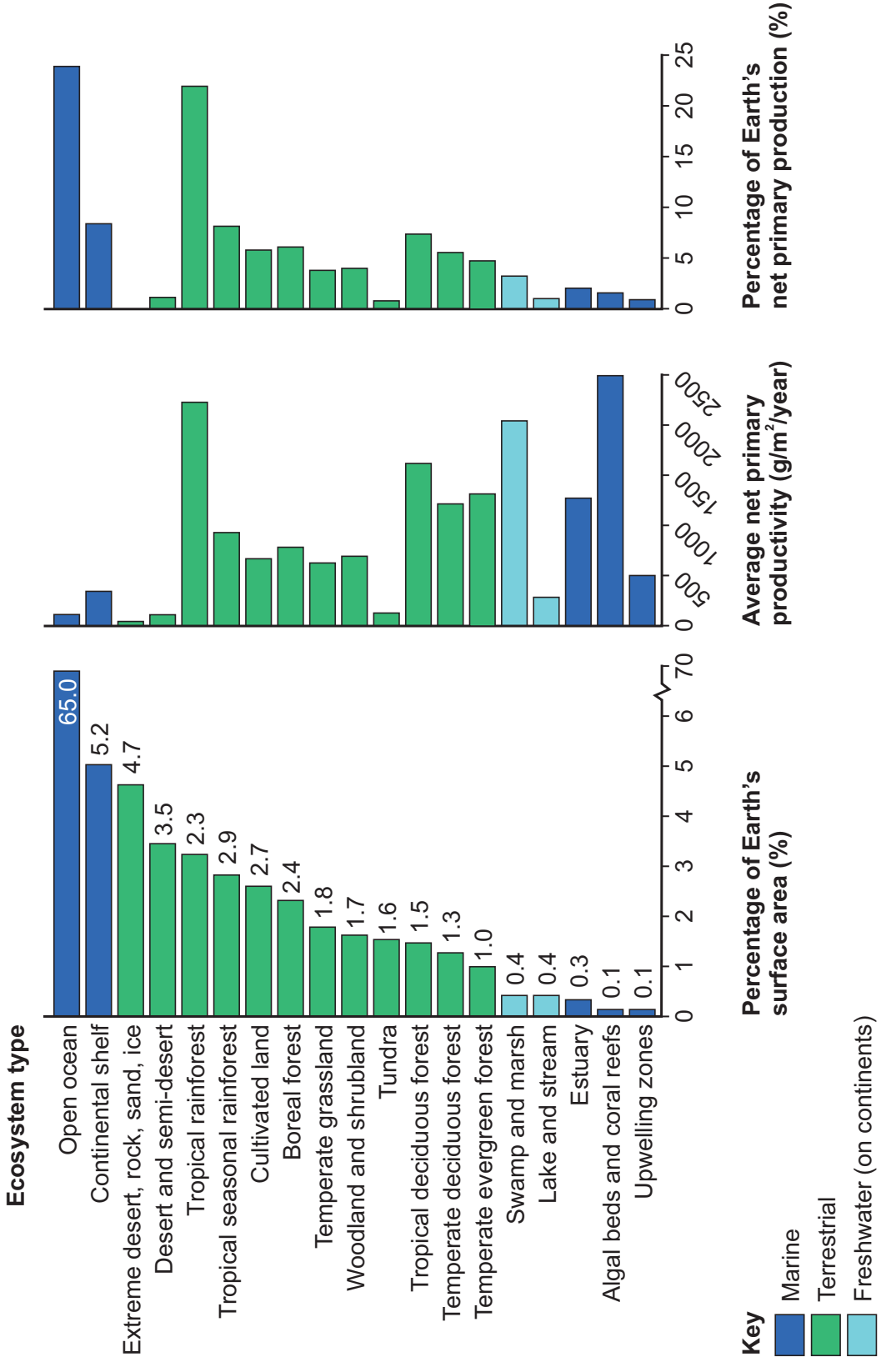
Figure 2 shows the relationship between percentage cover of the Earth's surface area, average net primary productivity and percentage of Earth's net primary production for each ecosystem type.

Figure 2



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

[6 marks]

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6

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0 7 Assess the impact of fishing on the health and survival of a coral reef you have studied.

[9 marks]

Extra space

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0 8 To what extent have attempts to manage the impacts of change in an ecosystem at a local scale been successful?

Use **one or more** examples to support your answer.

[20 marks]

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END OF QUESTIONS

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ANSWER IN THE SPACES PROVIDED

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Question number	**Additional page, if required.** **Write the question numbers in the left-hand margin.**

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