OXFORD

INTERNATIONAL
AQA EXAMINATIONS

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

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 ‘Water changes from a liquid state to a gaseous state through a transfer from Earth surfaces and from within vegetation into the atmosphere’ is the definition of:

[1 mark]

A condensation. ⬭

B evaporation. ⬭

C evapotranspiration. ⬭

D transpiration. ⬭

0 1 . 2 In which of the following is most of the Earth’s carbon stored?

[1 mark]

A Atmosphere ⬭

B Biosphere ⬭

C Hydrosphere ⬭

D Lithosphere ⬭

Do not write outside the box

0 1 . 3 Cryospheric processes on a hill slope include:

[1 mark]

A hail falling on a mountainside during a thunderstorm. ⬭

B overland flow where infiltration capacity is exceeded as the soil is frozen or saturated. ⬭

C snow turning to ice and moving as a glacier. ⬭

D weathered rock or loose material leading to landslides after torrential rain. ⬭

0 1 . 4 Which of the following **all** increase the amount of carbon in the atmosphere?

[1 mark]

A Car exhaust emissions; photosynthesis; rock weathering ⬭

B Combustion; decomposition of plant material; wildfires ⬭

C Forest growth; industrial emissions; respiration ⬭

D Sequestration; volcanic activity; wildfires ⬭

0 1 . 5 Which of the following are **both** human interventions designed to mitigate the impacts of climate change?

[1 mark]

A Deforestation for agriculture **and** increased use of renewable energy ⬭

B Investment in nuclear power **and** the monitoring of volcanoes ⬭

C More accurate weather forecasting **and** planting forests ⬭

D Reducing the rate of greenhouse gas emissions **and** increasing the use of public transport ⬭

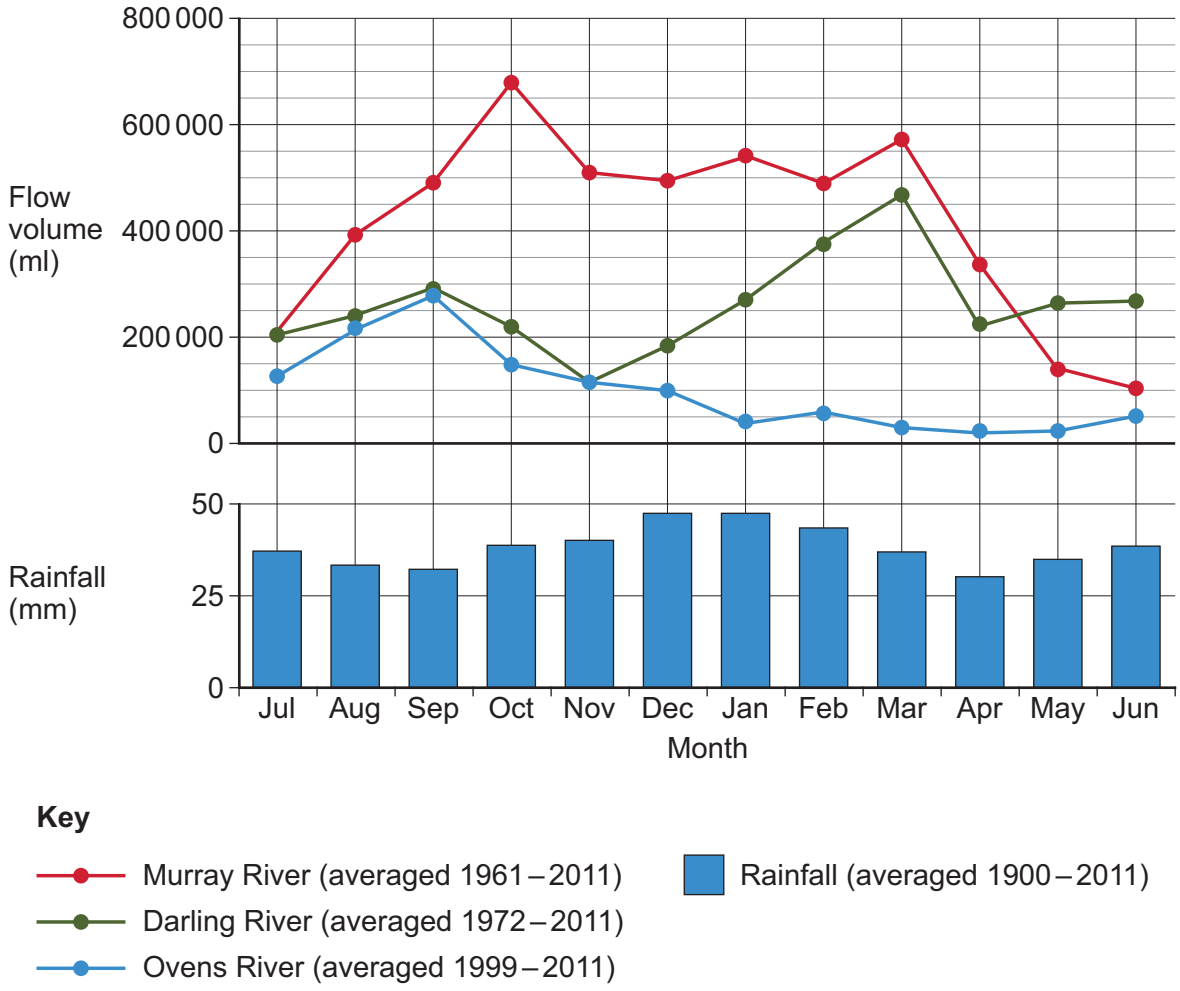
5

Turn over for the next question

Figure 1 shows the average rainfall and flow volume for three rivers in the Murray–Darling drainage basin in Australia.

Flow volume is the amount of water flowing down the river.

Figure 1



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

[6 marks]

Extra space

6

Turn over for the next question

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0 3 Evaluate the impact of land use on drainage basin stores and transfers in a river catchment you have studied at a local scale.

[9 marks]

Extra space

9

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0 4 ‘Human factors have a greater impact on the carbon cycle than natural factors.’

Evaluate the extent to which you agree with this statement.

Use examples you have studied to support your answer.

[20 marks]

Extra space

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20

END OF SECTION A

Turn over for Section B

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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 The definition of biodiversity in an ecosystem is:

[1 mark]

A generating economic value in a tourist area. ⬭

B the complexity of food chains. ⬭

C the number of trophic levels. ⬭

D the variety of flora and fauna. ⬭

0 5 . 2 Which of the following trophic levels receives the highest energy flow from the sun?

[1 mark]

A Carnivores ⬭

B Detritivores ⬭

C Herbivores ⬭

D Producers ⬭

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0 5 . 3 Which of the following **all** damage the health and threaten the survival of coral reefs?

[1 mark]

A Global warming; increasing water salinity; less frequent hurricanes ⬭

B Increasing water temperature; ocean acidification; sewage affecting sunlight levels ⬭

C Industrial pollution poisoning the coral; invasive species; stable water temperature ⬭

D Plastic waste on the reef; reef conservation; tourists taking coral souvenirs ⬭

0 5 . 4 The climatic climax of a succession is when:

[1 mark]

A food webs have become increasingly complex for that area. ⬭

B humans change the climate through global warming. ⬭

C pioneering species establish themselves in the early seral stages. ⬭

D the interaction of plants and animals with their environment reach equilibrium. ⬭

0 5 . 5 An example of an **unplanned** introduction of a new species to a local ecosystem is:

[1 mark]

A an insect carried on imported wood kills the local trees. ⬭

B planting oil palm which destroys the rainforest to make a profit. ⬭

C the introduction of flowers to parks to make them more attractive. ⬭

D tree planting to reduce the impact of global warming. ⬭

5

Turn over for the next question

Figure 2 shows the global seasonal patterns of land surface temperature and vegetation density in June 2019.

Figure 3 shows the global seasonal patterns of land surface temperature and vegetation density in December 2019.

Figure 2

June 2019

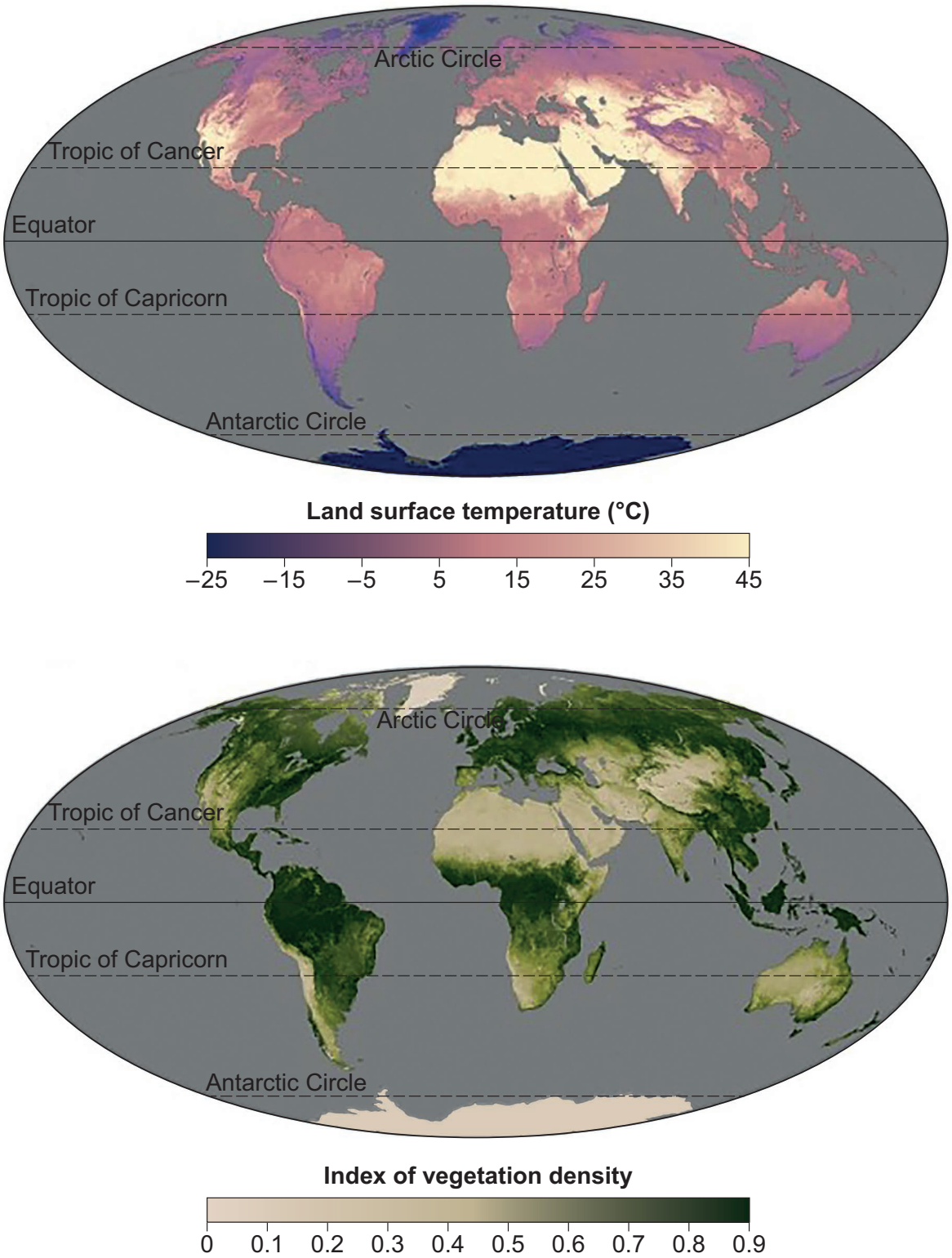
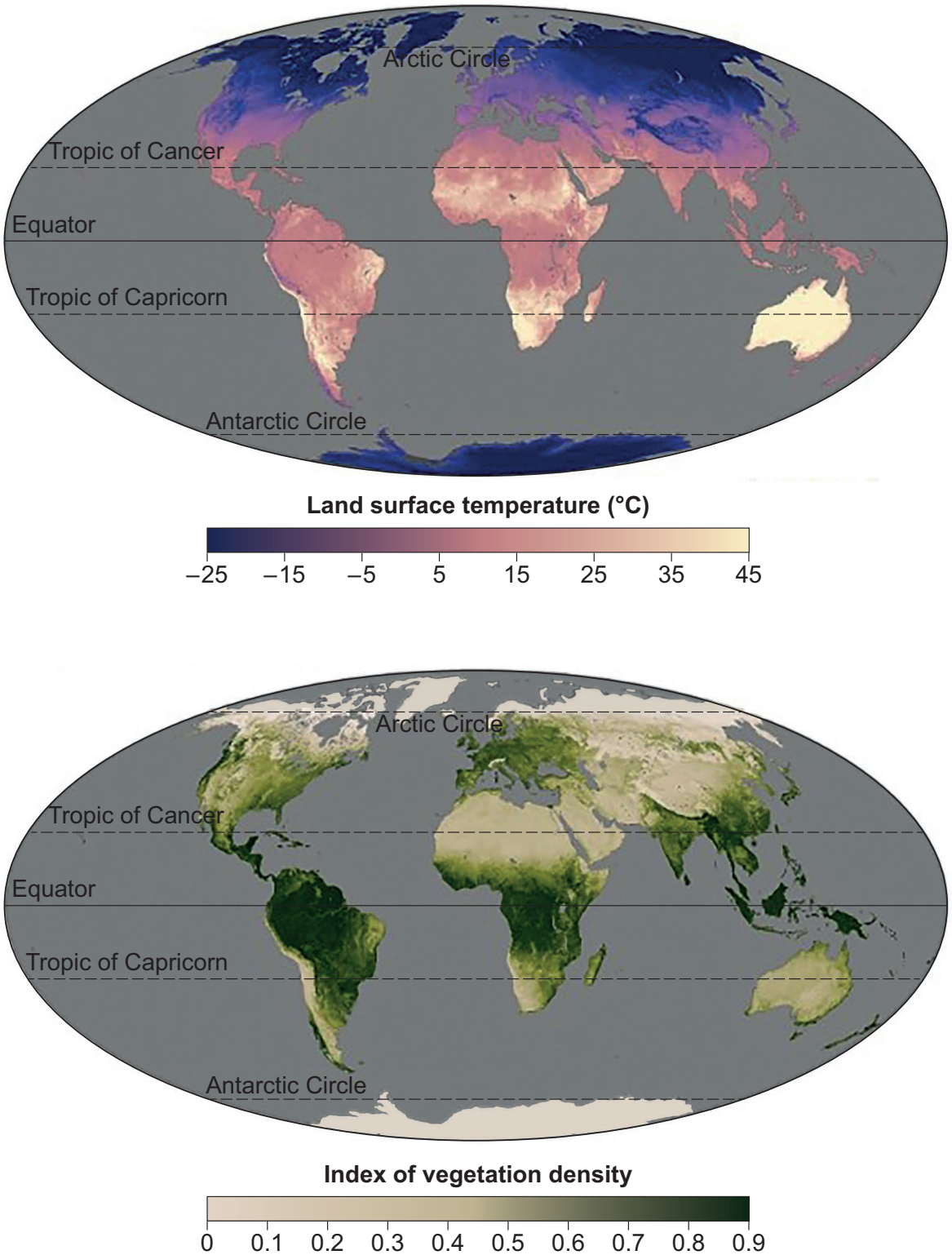


Figure 3

December 2019



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0 6 Analyse the data shown in **Figure 2** and **Figure 3**, on pages 12 and 13.

[6 marks]

Extra space

6

Turn over for the next question

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0 7 Explain how human activity disrupts a succession reaching a climatic climax.

Use an example of a succession you have studied (psammosere, halosere, hydrosere or lithosere) to support your answer.

[9 marks]

Extra space

9

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0 8 ‘Climate change causes a greater impact on biomes than changes caused by human exploitation.’

To what extent do you agree with the statement?

[20 marks]

Turn over ▶

Extra space

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END OF QUESTIONS

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