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School code

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School name

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Given name/s

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Family name

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Attach your
barcode ID label here

Book

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of

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books used

External assessment 2021

Question and response book

Earth & Environmental Science

Paper 1

Time allowed

- Perusal time — 10 minutes
- Working time — 90 minutes

General instructions

- Answer all questions in this question and response book.
- QCAA-approved calculator permitted.
- Planning paper will not be marked.

Section 1 (15 marks)

- 15 multiple choice questions

Section 2 (45 marks)

- 8 short response questions



Section 1

Instructions

- Choose the best answer for Questions 1–15.
- This section has 15 questions and is worth 15 marks.
- Use a 2B pencil to fill in the A, B, C or D answer bubble completely.
- If you change your mind or make a mistake, use an eraser to remove your response and fill in the new answer bubble completely.

	A	B	C	D
Example:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	A	B	C	D
1.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do not write outside this box.

Section 2

Instructions

- Write using black or blue pen.
 - If you need more space for a response, use the additional pages at the back of this book.
 - On the additional pages, write the question number you are responding to.
 - Cancel any incorrect response by ruling a single diagonal line through your work.
 - Write the page number of your alternative/additional response, i.e. See page ...
 - If you do not do this, your original response will be marked.
 - This section has eight questions and is worth 45 marks.
-

DO NOT WRITE ON THIS PAGE

THIS PAGE WILL NOT BE MARKED

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QUESTION 16 (11 marks)

- a) Explain two characteristics of a tropical cyclone that are observable using meteorological data.

[4 marks]

- b) Determine which of the national parks in Stimulus 1 was the location of Dataset 1 in Stimulus 3. Provide evidence from Stimulus 1, 2 and 3 to support your response.

[4 marks]

Do not write outside this box.

c) Predict which species is likely to quickly return to pre-cyclone numbers. Justify your response by contrasting two species, using data from Stimulus 3.

[3 marks]

Do not write outside this box.

QUESTION 17 (5 marks)

- a) Identify which years on the Southern Oscillation Index (SOI) graph in Stimulus 4 in the stimulus book represent the climatic conditions at X from Stimulus 5 in the stimulus book. Justify your response using evidence from the graph. *[3 marks]*

- b) Identify which years in Stimulus 4 were likely to have the largest recharge of natural river systems in the location marked by X in Stimulus 5. Explain your reasoning. *[2 marks]*

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QUESTION 20 (6 marks)

Identify two possible environmental risks that could be noted in an environmental impact assessment (EIA) for a new gold mine. Propose a strategy to mitigate each risk and explain the principle behind each strategy.

Risk: _____

Strategy: _____

Principle behind strategy: _____

Risk: _____

Strategy: _____

Principle behind strategy: _____

Do not write outside this box.

QUESTION 21 (3 marks)

Use Stimulus 7 in the stimulus book to determine the depth and thickness of the coal seam/s. Justify your response using evidence from the stimulus.

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