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LUI

Venue code

School name

Given name/s

Family name

Attach your
barcode ID label here

Sample assessment 2020

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 (20 marks)

- 20 multiple choice questions

Section 2 (40 marks)

- 5 short response questions



Section 1

Instructions

- Choose the best answer for Questions 1–20.
- This section has 20 questions and is worth 20 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"/>
16.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 2

Instructions

- Write using black or blue pen.
 - Respond in paragraphs consisting of full sentences.
 - 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 five questions and is worth 40 marks.
-

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THIS PAGE WILL NOT BE MARKED

QUESTION 21 (10 marks)

This question refers to Stimulus 1 in the stimulus book.

- a) Explain the three most likely causes of localised flooding in Oxapampa. *[3 marks]*

- b) Predict one positive and one negative impact that flood events will have on the local aquatic ecosystem situated along the Rio Chorobamba river. *[2 marks]*

- c) What are two ways that the impacts of the flood events could be mitigated for the buildings downstream of Oxapampa? *[2 marks]*

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- d) Where is agricultural activity most likely to occur in and around Oxapampa?
Provide two reasons to justify your response.

[3 marks]

QUESTION 22 (5 marks)

- a) Using Stimulus 2 in the stimulus book, identify the relationship between global temperatures and the concentration of heavy oxygen (^{18}O) in fossils.

[1 mark]

- b) Using Stimulus 3 in the stimulus book, explain why ice cores with oxygen isotopes can be used to provide evidence for climate change.

[4 marks]

QUESTION 24 (10 marks)

- a) Using two examples, explain how agricultural activity can have a positive and negative impact on the concentration of particulate materials in the atmosphere.

[4 marks]

- b) Discuss the influence of natural and anthropogenic processes on the production of atmospheric carbon dioxide over time, using two examples of each.

[6 marks]

QUESTION 25 (7 marks)

a) Explain how the following mineral resources are formed.

- aluminium

[2 marks]

- mineral sands

[2 marks]

b) Explain how the location of a gold deposit is usually related to its geological setting.

[3 marks]

END OF PAPER

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