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# Earth & Environmental Science

Paper 2

### 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 (37 marks)

• 5 short response questions

### Section 2 (18 marks)

• 1 extended response question



# DO NOT WRITE ON THIS PAGE THIS PAGE WILL NOT BE MARKED

# **Section 1**

#### **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 five questions and is worth 37 marks.

#### DO NOT WRITE ON THIS PAGE

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a)	Compare the recovery of water quality inside and downstream of the erosion gully.	[3 marks
Sim	ilarity:	
 Diff	Perence:	
Sigr	nificance:	
	Identify a solution to the problem of the waterway becoming blocked by a build-up of sediment. Explain how the solution would reduce sedimentation.	[2 mark

a)	Identify the effect on temperature if carbon dioxide $(CO_2)$ concentration increased to 660 ppm.	[1 mark
b)	Determine the species most at risk of extinction from an increase in temperature.  Justify your response.	[2 marks
c)	Make two predictions about the effect of RCP 8.5 on species D. Justify your predictions.	[4 marks

a)	Describe the change in rainforest distribution shown in figure 1.	[1 mark]
b)	Explain how deforestation in the Amazon rainforest contributes to global climate change.	[3 marks

from the atmosphere if deforestation continues. Justify your response with evidence from figures 1, 2 and 3.	[4 mark

a)	Identify a suitable renewable energy source for City X. Justify your response.	[2 marks
1 \		
b)	Explain three factors to be considered when selecting the energy source in Question 4a) for City X. Describe an impact of each factor on the viability of the energy source.	[9 marks
Fac	etor 1:	

Factor 3:		

a)	Describe the geological process that is occurring in the East African Rift region.	[2 marks
b)	Predict the hazardous Earth events likely to occur because of this geological process.  Explain your predictions.	[4 marks
	Explain your predictions.	[ Tital No.

# **Section 2**

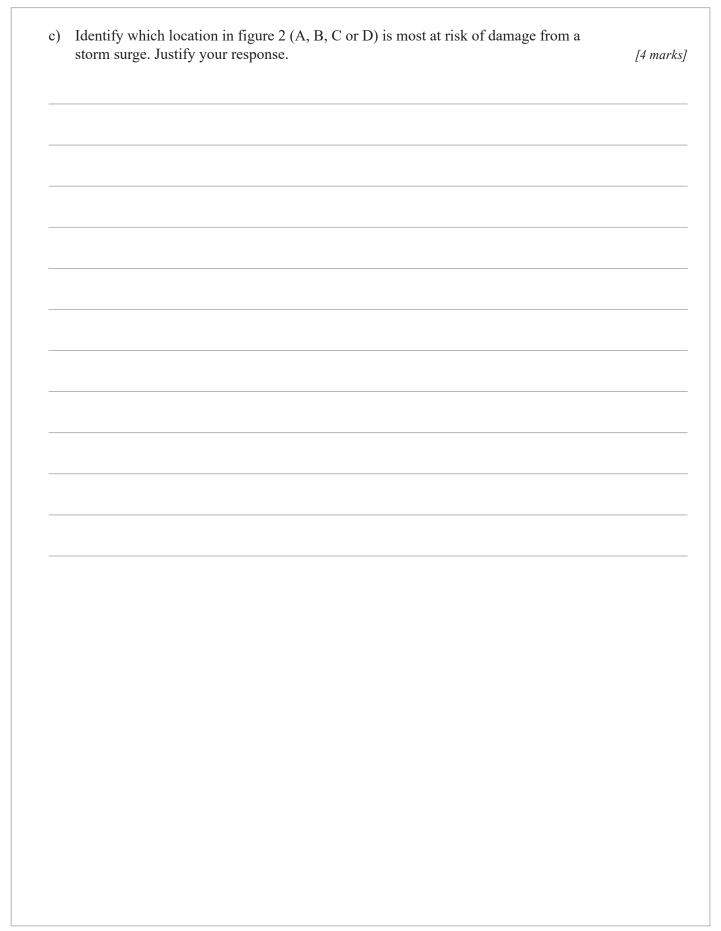
# **Instructions**

- This section has one question and is worth 18 marks.
- Respond in 300–350 words.

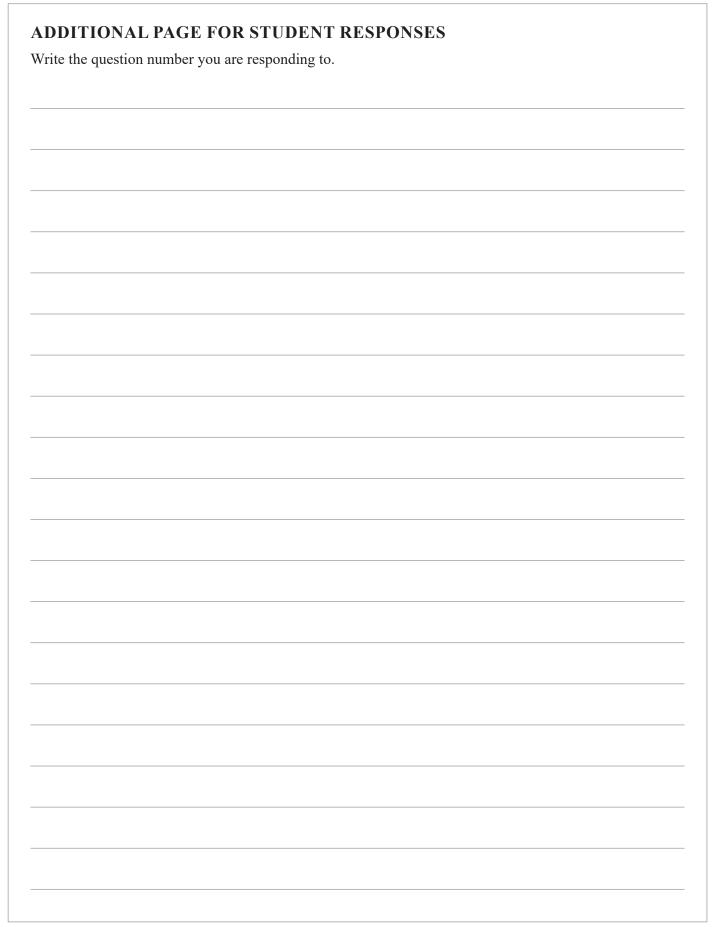
# QUESTION 6 (18 marks)

Refer to Stimulus 6 in the stimulus book.

a)	Identify four conditions necessary for tropical cyclone Taylor to form and reach the coastline.	[4 marks]
b)	Explain the factors that would have been considered when choosing the name 'Taylor'.	[4 marks]



for each impact.	[6 marks
mpact 1:	
mpact 2:	
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