



# Cambridge International AS & A Level

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## GEOGRAPHY

9696/33

Paper 3 Advanced Physical Geography Options

May/June 2023

1 hour 30 minutes



You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)  
Insert (enclosed)

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### INSTRUCTIONS

- Answer **four** questions in total:  
Answer questions from **two** options.  
For **each** option, follow the instructions inside on which questions to answer.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.
- Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.
- You should make reference to appropriate examples studied in the field or the classroom, even where such examples are not specifically requested by the question.

### INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].
- The insert contains all the resources referred to in the questions.

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This document has **4** pages. Any blank pages are indicated.

Answer questions from **two** different options.

### Tropical environments

If answering this option, answer Question 1 and **either** Question 2 **or** Question 3.

- 1 Fig. 1.1 shows mean precipitation data for two tropical locations.
- (a) Compare the precipitation patterns for Location A and Location B shown in Fig. 1.1. [4]
- (b) Suggest why the precipitation patterns for Location A and Location B in Fig. 1.1 are different. [6]
- 2 'Climate is the most important factor influencing the vegetation characteristics of seasonally humid tropical (savanna) ecosystems.'
- How far do you agree with this view? [20]
- 3 Using a case study, evaluate the attempted solutions to the problems of sustainable management within a tropical environment ecosystem. [20]

### Coastal environments

If answering this option, answer Question 4 and **either** Question 5 **or** Question 6.

- 4 Fig. 4.1 shows a model of how waves change as they move towards the shore.
- (a) Describe the changes in waves shown in Fig. 4.1 as they move towards the shore. [4]
- (b) Explain the changes you described in (a). [6]
- 5 Assess the role of sea level change in the formation of coastal landforms. [20]
- 6 Evaluate the extent to which threats to coral reefs can be successfully managed. [20]

**Hazardous environments**

If answering this option, answer Question 7 and **either** Question 8 **or** Question 9.

- 7 Fig. 7.1 shows a diagram of a mass movement.
- (a) Describe the characteristics of the mass movement shown in Fig. 7.1. [4]
- (b) Suggest **two** physical causes of the mass movement you described in (a). [6]
- 8 'Volcanic hazards have a greater impact on lives than on property.'
- To what extent do you agree with this view? [20]
- 9 Assess the extent to which latitude determines the global distribution of areas most at risk from atmospheric disturbances. [20]

**Hot arid and semi-arid environments**

If answering this option, answer Question 10 and **either** Question 11 **or** Question 12.

- 10 Fig. 10.1 is a photograph which shows a landscape in a semi-arid environment, Anza-Borrego Desert, California, USA.
- (a) Describe the main landforms shown in Fig. 10.1. [4]
- (b) Suggest how water has influenced the formation of **two** of the landforms you described in (a). [6]
- 11 'Desertification is caused more by human factors than by natural factors.'
- How far do you agree with this view? [20]
- 12 Assess the relative importance of the causes of aridity. [20]

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