



# Cambridge International AS & A Level

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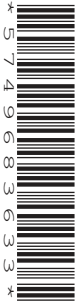
## GEOGRAPHY

9696/32

Paper 3 Advanced Physical Geography Options

October/November 2024

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 the average climatic characteristics of two tropical locations.
- (a) Compare the climatic characteristics of the two locations shown in Fig. 1.1. [4]
- (b) Suggest reasons for the climatic characteristics of Chittagong shown in Fig. 1.1. [6]
- 2 'The vegetation of humid tropical (rainforest) ecosystems has developed into a climatic climax plant community, but the vegetation of seasonally humid tropical (savanna) ecosystems has developed into a plagioclimax plant community.'
- How far do you agree with this view? [20]
- 3 Assess the view that tors, inselbergs and bornhardts in tropical environments have been formed by the same processes and differ only in their size. [20]

### Coastal environments

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

- 4 Fig. 4.1 shows generalised summer and winter beach profiles of a sandy beach.
- (a) Compare the summer and winter beach profiles shown in Fig. 4.1. [4]
- (b) Explain the summer and winter beach profiles shown in Fig. 4.1. [6]
- 5 Evaluate the role of wind in the formation and characteristics of coastal dunes. [20]
- 6 Assess the success of attempts to sustainably manage a stretch or stretches of coastline. [20]

### Hazardous environments

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

- 7 Fig. 7.1 is a photograph which shows the eruption of the Soufrière Hills volcano, on the Caribbean island of Montserrat, in 2010.
- (a) Describe the main characteristics of the volcanic eruption shown in Fig. 7.1. [4]
- (b) Explain how volcanic hazards may be related to the type of volcanic eruption. [6]
- 8 'Hazard mapping is the most effective way to prepare for hazards from mass movements.'
- How far do you agree with this view? [20]
- 9 Assess the view that it is easier to predict and monitor large-scale atmospheric disturbances (cyclones, hurricanes, typhoons) than it is for small-scale atmospheric disturbances (tornadoes). [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 shows the rainfall variability over the semi-arid regions of Namibia, Botswana and north-west South Africa, 1910–2010.
- (a) Describe the rainfall variability shown in Fig. 10.1. [4]
- (b) Explain why rainfall variability in semi-arid areas is very high. [6]
- 11 To what extent is wind action the most important factor in the formation of landforms of hot arid and semi-arid environments? [20]
- 12 'The fragility of vegetation in hot arid and semi-arid environments is the result of low biomass productivity.'
- How far do you agree with this view? [20]

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