



# Cambridge International AS & A Level

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## GEOGRAPHY

9696/31

Paper 3 Advanced Physical Geography Options

May/June 2020

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. 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 global distribution of humid tropical and seasonally humid tropical environments.
- (a) Compare the global distributions of humid tropical and seasonally humid tropical environments shown in Fig. 1.1. [4]
- (b) Explain why the environments shown in Fig. 1.1 are humid. [6]
- 2 Assess the relative importance of weathering and erosion in the formation of characteristic granite landforms in tropical environments. [20]
- 3 'Laterisation is the most important process influencing soil profile characteristics in tropical environments.'
- How far do you agree with this view? [20]

### Coastal environments

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

- 4 Fig. 4.1 shows the relationship between wave height and fetch length for a coastal location.
- (a) Describe the relationship between wave height and fetch length shown in Fig. 4.1. [4]
- (b) Explain **two** factors influencing wave height. [6]
- 5 Using a case study of a stretch or stretches of coastline, assess the extent to which the problems of sustainably managing coasts are the result of physical factors. [20]
- 6 To what extent is sediment supply the most important factor influencing the characteristics and formation of depositional landforms in coastal environments? [20]

### Hazardous environments

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

- 7 Fig. 7.1 shows a volcanic hazard map for Dominica in the Caribbean Sea.
- (a) Describe the pattern of volcanic hazard zones shown in Fig. 7.1. [4]
- (b) Suggest **two** reasons why some places have a very high hazard level. [6]
- 8 Assess the relative significance of the hazards resulting from large scale atmospheric disturbances (cyclones, hurricanes, typhoons). [20]
- 9 Using a case study, evaluate the attempted and possible solutions to the problems of sustainable management of a hazardous environment. [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 hot arid landscape in the USA.
- (a) With the aid of a labelled diagram, describe the main physical features of the landscape shown in Fig. 10.1. [4]
- (b) Suggest how **two** different processes have influenced the formation of the landscape shown in Fig. 10.1. [6]
- 11 'Vegetation in hot arid and semi-arid environments is adapted more to extreme temperatures than to drought.'
- How far do you agree with this statement? [20]
- 12 Evaluate the varied evidence for past climate change in hot arid and semi-arid environments. [20]

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