



Cambridge International AS & A Level

GEOGRAPHY

9696/33

Paper 3 Advanced Physical Geography Options

May/June 2024

1 hour 30 minutes



You must answer on the enclosed answer booklet.

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

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.

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

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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 climates.
- (a) Describe the global distribution of humid tropical climates shown in Fig. 1.1. [4]
- (b) Explain the climatic characteristics of humid tropical environments. [6]
- 2 Assess the relative importance of the factors influencing the formation of characteristic granite landforms in tropical environments. [20]
- 3 'Plant communities in seasonally humid tropical (savanna) ecosystems rarely reach their climatic climax.'
- 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 a coastal environment in Cantabria, Spain.
- (a) Describe the main landscape features of the coastal environment shown in Fig. 4.1. [4]
- (b) Explain the formation of landform A shown in Fig. 4.1. [6]
- 5 Assess the relative importance of the factors influencing the generation and characteristics of waves. [20]
- 6 Evaluate the problems of sustainably managing 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 shows the predicted development of a tsunami after an earthquake in Japan, 11 March 2011.
- (a) Describe the predicted development of the tsunami shown in Fig. 7.1. [4]
- (b) Explain the formation of a tsunami such as the one shown in Fig. 7.1. [6]
- 8** To what extent is the Coriolis force the most important factor influencing the formation and development of large-scale atmospheric disturbances? [20]
- 9** Evaluate the most effective way of managing mass movement hazards. [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 mean wind speeds during a month in a semi-arid environment, northern Iraq, 2011.
- (a) Describe the variations in wind speed shown in Fig. 10.1. [4]
- (b) Explain why hot arid and semi-arid environments have high wind energy. [6]
- 11** 'Salinisation is the most important soil process in hot arid and semi-arid environments.'
- How far do you agree with this view? [20]
- 12** Assess the extent to which landforms in hot arid and semi-arid environments are formed by water rather than wind. [20]

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