



Cambridge International AS & A Level

GEOGRAPHY

9696/31

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)

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.

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 is a photograph which shows a tower karst landscape in China.
 (a) Describe the physical features of the tower karst landscape shown in Fig. 1.1. [4]
 (b) Explain the formation of tropical tower karst. [6]

- 2 Assess the view that the main difference between the climates of humid tropical and seasonally humid tropical environments is the amount of annual rainfall. [20]

- 3 With reference to a case study from **either** the rainforest ecosystem **or** savanna ecosystem, assess the relative significance of the threats to the ecosystem. [20]

Coastal environments

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

- 4 Fig. 4.1 shows the global distribution of coastal sand dunes.
 (a) Describe the global distribution of coastal sand dunes shown in Fig. 4.1. [4]
 (b) Explain why sand dunes occur on some coastlines. [6]

- 5 'Some coral reefs are under greater threat than others.'
 How far do you agree with this view? [20]

- 6 Assess the influence of wave characteristics on the formation and characteristics of coastal landforms. [20]

Hazardous environments

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

- 7** Fig. 7.1 shows average tsunami heights along the coastline of North and South Island, New Zealand, over the last 2500 years.
- (a) Describe the distribution of average tsunami heights of 10.0–11.9m **and** 12m and above shown in Fig. 7.1. [4]
- (b) Explain **two** factors that influence the height of a tsunami on reaching a coastline. [6]
- 8** 'Some types of mass movement are more hazardous than others.'
- How far do you agree with this view? [20]
- 9** Assess the view that storm surges are the most significant hazard from large-scale atmospheric disturbances (cyclones, hurricanes, typhoons). [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 a model of landforms in a hot arid environment.
- (a) Describe landforms X and Y shown in Fig. 10.1. [4]
- (b) Explain the formation of the landforms labelled X and Y in Fig. 10.1. [6]
- 11** Assess the view that the degradation of soils and vegetation in semi-arid environments is mainly caused by salinisation. [20]
- 12** 'Aridity is always caused by a combination of factors.'
- How far do you agree with this view? [20]

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