



# **Cambridge International AS & A Level**

---

**GEOGRAPHY**

**9696/33**

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]

**BLANK PAGE**

---

The boundaries and names shown, the designations used and the presentation of material on any maps contained in this question paper/insert do not imply official endorsement or acceptance by Cambridge Assessment International Education concerning the legal status of any country, territory, or area or any of its authorities, or of the delimitation of its frontiers or boundaries.

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at [www.cambridgeinternational.org](http://www.cambridgeinternational.org) after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.