



Cambridge International AS & A Level

GEOGRAPHY

9696/33

Paper 3 Advanced Physical Geography Options

October/November 2022**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 shows the global distribution of oxisols/latosols.
- (a) Describe the distribution of oxisols/latosols shown in Fig. 1.1. [3]
- (b) Explain the formation of oxisols/latosols. [7]
- 2 Assess the extent to which the formation of granite landforms in tropical environments has been influenced by climate. [20]
- 3 'There is little variation in the vegetation of seasonally humid tropical (savanna) ecosystems.'
- How far do you agree? [20]

Coastal environments

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

- 4 Fig. 4.1 shows the loss of coral cover along the Great Barrier Reef, Australia, 2016.
- (a) Describe the pattern of coral cover loss shown in Fig. 4.1. [4]
- (b) Explain **two** factors that account for loss of coral cover on reefs. [6]
- 5 'An understanding of the operation of coastal sediment cells is essential for sustainable management of coastlines.'
- How far do you agree? [20]
- 6 Evaluate the role of sub-aerial processes in the development of coastal cliffs and wave-cut platforms. [20]

Hazardous environments

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

- 7** Fig. 7.1 shows a landslide potential map of mainland USA.
- (a) Describe the distribution of landslide potential shown in Fig. 7.1. [4]
- (b) Explain why some areas are more prone to landslides than others. [6]
- 8** Assess the extent to which high rainfall is the most significant hazard resulting from atmospheric disturbances. [20]
- 9** 'It is more difficult to produce a hazard map of earthquakes than it is for volcanic eruptions.'
- How far do you agree? [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 Erg Chigaga, Morocco.
- (a) Describe the features of the landscape shown in Fig. 10.1. [4]
- (b) Explain the formation of the landform labelled A in Fig. 10.1. [6]
- 11** 'Water processes are the most important processes in the development of landforms in hot arid and semi-arid environments.'
- How far do you agree? [20]
- 12** Assess the extent to which plants in hot arid and semi-arid environments are adapted to extreme temperatures rather than drought. [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 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.