



Cambridge International AS & A Level

GEOGRAPHY

9696/32

Paper 3 Advanced Physical Geography Options

May/June 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 a typical profile of an oxisol/latosol.
 - (a) Describe the main features of the profile shown in Fig. 1.1. [4]
 - (b) Explain **two** ways in which climate is likely to have influenced the profile features you described in (a). [6]
- 2 Assess the relative importance of conditions influencing varying characteristics of tropical karst landforms. [20]
- 3 To what extent are air masses the most significant factor affecting tropical climates? [20]

Coastal environments

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

- 4 Fig. 4.1 shows rates of salt weathering near Prawle Point, Devon, UK, 1980–84.
 - (a) Describe the variations in rates of salt weathering shown in Fig. 4.1. [4]
 - (b) Suggest reasons for the variations you described in (a). [6]
- 5 Using a case study, assess the extent to which problems of sustainably managing a stretch or stretches of coastline have been solved. [20]
- 6 'Wave energy is the most important factor influencing the formation of erosional landforms in coastal environments.'

How far do you agree? [20]

Hazardous environments

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

- 7** Fig. 7.1 shows reported intensity of ground shaking produced by the 2014 South Napa earthquake, USA.
- (a) Describe the pattern of reported intensity of ground shaking shown in Fig. 7.1. [4]
- (b) Suggest **two** reasons for the pattern you described in (a). [6]
- 8** 'Flooding is the most significant hazard from large-scale atmospheric disturbances.'
- How far do you agree with this view? [20]
- 9** Using a case study, evaluate the attempted or 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 shows the hydrological regime of a small stream in an arid environment in Arizona, USA, 2013–14.
- (a) Describe the hydrological regime shown in Fig. 10.1. [3]
- (b) Suggest reasons for the characteristics of the hydrological regime you described in (a). [7]
- 11** Assess the relative importance of the causes of low biomass productivity in hot arid environments. [20]
- 12** To what extent do the global distributions of hot arid and semi-arid environments differ? [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.