



Cambridge International AS & A Level

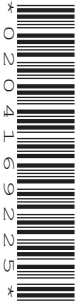
GEOGRAPHY

9696/13

Paper 1 Core Physical Geography

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:
Section A: answer **all** questions.
Section B: answer **one** question.
- 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.

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.

Section A

Answer **all** questions in this section. All questions are worth 10 marks.

Hydrology and fluvial geomorphology

- 1 Fig. 1.1 shows a diagram of a delta in a lake under two climatic conditions.
- (a) Identify feature A shown in Fig. 1.1. [1]
 - (b) Compare the characteristics of the deltas shown in Fig. 1.1. [4]
 - (c) Explain the factors that influence the size and shape of deltas. [5]

Atmosphere and weather

- 2 Fig. 2.1 shows changes in the difference between summer and winter temperatures, 1979–2016.
- (a) State the change in the difference between summer and winter temperatures for location X shown in Fig. 2.1. [1]
 - (b) Describe the global distribution of the changes in the difference between summer and winter temperatures shown in Fig. 2.1. [4]
 - (c) Explain why temperatures are increasing globally. [5]

Rocks and weathering

- 3 Fig. 3.1 shows models of different types of mass movements.
- (a) State the type of mass movement shown in Fig. 3.1 that has the fastest speed under the driest conditions. [1]
 - (b) Describe the relationships between the type of mass movement, speed and moisture content shown in Fig. 3.1. [4]
 - (c) Explain how water influences mass movement. [5]

Section B

Answer **one** question from this section. All questions are worth 30 marks.

Hydrology and fluvial geomorphology

- 4 (a) (i) Define the fluvial terms *saltation* and *cavitation*. [4]
- (ii) Briefly explain the process of solution within a river channel. [3]
- (b) Explain the factors influencing stores in a drainage basin system. [8]
- (c) With the aid of examples, assess the view that soft engineering is less effective than hard engineering in reducing river flooding. [15]

Atmosphere and weather

- 5 (a) (i) State **three** characteristics of wind belts. [3]
- (ii) Explain how ocean currents contribute to the global atmospheric transfer of energy. [4]
- (b) Describe **and** explain the main factors that affect the diurnal energy budget. [8]
- (c) With the aid of examples, how far do you agree that convection is the main cause of precipitation? [15]

Rocks and weathering

- 6 (a) (i) Describe the process of rainsplash on slopes. [3]
- (ii) Explain how netting helps to reduce mass movement on slopes. [4]
- (b) Explain how the Peltier diagram can be used to study the effect of climate on weathering processes. [8]
- (c) Assess the extent to which fold mountains are the main landforms associated with convergent plate boundaries. [15]

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.