



# Cambridge International AS & A Level

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## GEOGRAPHY

9696/13

Paper 1 Core Physical Geography

May/June 2025

1 hour 30 minutes



You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)  
Insert (enclosed)

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### 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.

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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 and Fig. 1.2 are two photographs which show a river during and after a flood event near Bristol, UK.
- (a) Name the landform labelled X in Fig. 1.2. [1]
  - (b) Describe the changes to the river between Fig. 1.1 and Fig. 1.2. [4]
  - (c) Using Fig. 1.2, suggest how the course and features of the river channel may change over time. [5]

### Atmosphere and weather

- 2 Fig. 2.1 shows precipitation in Alaska, USA, and part of Canada, March 2024. Fig. 2.2 is a map of Alaska, USA, and part of Canada.
- (a) State the amount of precipitation in area X shown in Fig. 2.1. [1]
  - (b) Describe the pattern of precipitation shown in Fig. 2.1. [4]
  - (c) Suggest reasons for the pattern of precipitation shown in Fig. 2.1. [5]

### Rocks and weathering

- 3 Fig. 3.1 shows characteristics of different mass movements.
- (a) (i) State the characteristics of debris flow shown in Fig. 3.1. [1]
  - (ii) State the slowest form of mass movement shown in Fig. 3.1. [1]
  - (b) With reference to Fig. 3.1, describe the differences between solifluction and landslides. [3]
  - (c) Explain **two** strategies to modify slopes to reduce mass movement. [5]

## Section B

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

### Hydrology and fluvial geomorphology

- 4 (a) (i) Describe how the shape of a hydrograph can be affected by rock type. [4]
- (ii) Briefly describe what is meant by the term 'recurrence interval'. [3]
- (b) Explain the formation of waterfalls **and** gorges. [8]
- (c) With the aid of examples, assess the extent to which hard engineering is the most effective form of flood defence. [15]

### Atmosphere and weather

- 5 (a) (i) Define the atmospheric terms 'albedo' and 'condensation'. [4]
- (ii) Briefly explain the formation of hail. [3]
- (b) Explain how ocean currents can affect the seasonal variation in temperature. [8]
- (c) 'The evidence for global warming is based on past climates.'
- With the aid of examples, how far do you agree with this statement? [15]

### Rocks and weathering

- 6 (a) (i) Define the weathering terms 'hydration' and 'carbonation'. [4]
- (ii) Describe the formation of fold mountains. [3]
- (b) Explain how climate can affect the type **and** rate of weathering. [8]
- (c) 'The global pattern of tectonic plates is explained by the process of subduction.'
- With the aid of examples, how far do you agree with this statement? [15]

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