



# Cambridge International AS & A Level

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GEOGRAPHY

9696/12

Paper 1 Core Physical Geography

October/November 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 shows the land use in areas at different levels of risk of river flooding in north-east Greece.
- (a) Describe the relationship between land use and the level of risk of river flooding shown in Fig. 1.1. [4]
- (b) Briefly explain how land use might influence the risk of river flooding. [3]
- (c) Explain how river floods may be prevented by **one** method of hard engineering. [3]

**Atmosphere and weather**

- 2 Fig. 2.1 shows the distribution of temperatures in the urban area of Boston and surrounding areas, Massachusetts, USA, in the afternoon (15:00), 29 July 2019.
- (a) State the temperature at South End shown in Fig. 2.1. [1]
- (b) Describe the pattern of temperatures shown in Fig. 2.1. [4]
- (c) Explain why temperatures might vary within an urban area. [5]

**Rocks and weathering**

- 3 Fig. 3.1 shows four simplified diagrams of tectonic boundaries.
- (a) Name the type of tectonic boundary shown in diagram A in Fig. 3.1. [1]
- (b) Compare the patterns of earthquakes between the four diagrams shown in Fig. 3.1. [4]
- (c) Explain the pattern of earthquakes shown in diagram B in Fig. 3.1. [5]

## Section B

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

### **Hydrology and fluvial geomorphology**

- 4 (a) (i) Describe the process of traction within river channels. [3]
- (ii) Explain how point bars are formed in river channels. [4]
- (b) Explain how the size and shape of a drainage basin may affect the shape of a storm hydrograph. [8]
- (c) 'River velocity is the main factor influencing the formation of braided river channels.'

With the aid of examples, how far do you agree with this statement?

[15]

### **Atmosphere and weather**

- 5 (a) (i) Describe the atmospheric process of condensation. [3]
- (ii) Explain why some areas experience radiation deficits. [4]
- (b) Describe and explain the atmospheric impacts from global warming. [8]
- (c) Assess the extent to which albedo is the main factor affecting the **diurnal** energy budget. [15]

### **Rocks and weathering**

- 6 (a) (i) Define the mass movement terms 'heave' and 'fall'. [4]
- (ii) Briefly explain the formation of ocean ridges. [3]
- (b) Explain how human activity can cause slope instability. [8]
- (c) 'Temperature is the main factor affecting physical weathering whereas rainfall is the main factor affecting chemical weathering.'

With the aid of examples, how far do you agree with this statement?

[15]

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