Cambridge Assessment International Education

# Cambridge International AS & A Level

**GEOGRAPHY** **9696/11**

Paper 1 Core Physical Geography **October/November 2023**

**1 hour 30 minutes**

*3652082183*

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.

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## Section A

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

### Hydrology and fluvial geomorphology

**1** Fig. 1.1 shows two storm hydrographs for the same precipitation event.

**(a)** State the storm hydrograph which has the shortest lag time. [1]

**(b)** Compare the characteristics of the two storm hydrographs shown in Fig. 1.1. [3]

**(c)** Suggest **two** reasons for the shape of storm hydrograph A shown in Fig. 1.1. [6]

### Atmosphere and weather

**2** Fig. 2.1 and Fig. 2.2 show two possible causes of precipitation.

**(a)** State the cause of precipitation shown in Fig. 2.1. [1]

**(b)** Compare the processes which lead to the heavy rainfall shown in Fig. 2.1 with the processes shown in Fig. 2.2. [4]

**(c)** Explain how frontal precipitation occurs. [5]

### Rocks and weathering

**3** Fig. 3.1 is a photograph which shows a mass movement.

**(a)** Name the type of mass movement labelled A in Fig. 3.1. [1]

**(b)** Describe the features of the mass movement labelled A in Fig. 3.1. [4]

**(c)** Explain how a mass movement such as that shown in Fig. 3.1 is formed. [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 *traction* and *abrasion*. [4]

**(ii)** Describe the process of suspension within a river channel. [3]

**(b)** Explain the formation of river bluffs and levées. [8]

**(c)** With reference to a recent river flood event, assess the causes of the flood and evaluate attempts to reduce its impact. [15]

### Atmosphere and weather

**5** **(a)** **(i)** Define the atmospheric terms *hail* and *dew*. [4]

**(ii)** Describe how the characteristics of the Earth's surface affect the amount of solar radiation absorbed. [3]

**(b)** Explain how latitude affects the seasonal variation in global pressure. [8]

**(c)** With the aid of examples, assess the extent to which global warming is caused by large organisations. [15]

### Rocks and weathering

**6** **(a)** **(i)** Define the weathering terms *heating and cooling* and *vegetation root action*. [4]

**(ii)** Briefly explain how sheetwash occurs on slopes. [3]

**(b)** Explain the formation of fold mountains. [8]

**(c)** 'Human activity is the main factor in reducing the stability of slopes.'

With the aid of one or more examples, how far do you agree with this statement? [15]

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