



Cambridge International AS & A Level

GEOGRAPHY

9696/11

Paper 1 Core Physical Geography

October/November 2023

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 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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