



Cambridge International AS & A Level

GEOGRAPHY

9696/11

Paper 1 Core Physical Geography

May/June 2021

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 and Fig. 1.2 show catchment flows in a drainage basin system before and after urbanisation.
- (a) (i) Calculate flow X in Fig. 1.1. [1]
- (ii) Name flow Y in Fig. 1.2. [1]
- (b) Using Fig. 1.1 and Fig. 1.2, describe the changes to catchment flows after urbanisation. [3]
- (c) Explain why catchment flows change after urbanisation. [5]

Atmosphere and weather

- 2 Fig. 2.1 is two photographs which show a type of precipitation.
- (a) Describe the characteristics of the type of precipitation shown in Fig. 2.1. [2]
- (b) Briefly explain the formation of the type of precipitation shown in Fig. 2.1. [3]
- (c) Explain why the type of precipitation may vary in one location. [5]

Rocks and weathering

- 3 Fig. 3.1 shows the global pattern of tectonic plates.
- (a) (i) Name the type of plate shown as X in Fig. 3.1. [1]
- (ii) Name the type of plate boundary shown as Y in Fig. 3.1. [1]
- (b) Draw a sketch of plate boundary Z in Fig. 3.1. Label the main features. [4]
- (c) Explain the formation of **one** of the features you identified in (b). [4]

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 *cavitation* and *suspension*. [4]
- (ii) Describe the formation of a point bar within a river. [3]
- (b) Explain how a river flood can impact people. [8]
- (c) 'The intensity of precipitation is the most significant influence on the shape of a storm hydrograph.'
- With the aid of examples, how far do you agree? [15]

Atmosphere and weather

- 5 (a) (i) Describe **two** ways incoming (shortwave) solar radiation can be reflected. [4]
- (ii) Briefly explain the latitudinal radiation deficit in the global energy budget. [3]
- (b) Explain how ocean currents influence surface temperatures on land. [8]
- (c) 'The most significant effect of human activity on urban climates is on humidity.'
- With the aid of examples, how far do you agree? [15]

Rocks and weathering

- 6 (a) (i) Define the weathering terms *pressure release (dilatation)* and *hydrolysis*. [4]
- (ii) Briefly explain the role of water in mass movement. [3]
- (b) Explain how temperature affects physical weathering processes. [8]
- (c) 'Attempts to reduce mass movement are not always successful.'
- With the aid of examples, how far do you agree? [15]

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