



Cambridge International AS & A Level

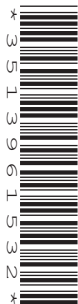
GEOGRAPHY

9696/11

Paper 1 Core Physical Geography

October/November 2020

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. Blank pages are indicated.

Section A

Answer **all** questions in this section. All questions carry 10 marks.

Hydrology and fluvial geomorphology

1 Fig. 1.1 shows some components of the drainage basin system.

(a) Using Fig. 1.1, name:

(i) A [1]

(ii) B. [1]

(b) Describe the process of throughflow in the drainage basin system. [3]

(c) Use Fig. 1.1 to explain how land use can affect the movement of water in a drainage basin. [5]

Atmosphere and weather

2 Fig. 2.1 shows an energy balance for a rural area and for an urban area.

(a) State **two** differences in the energy balance between the rural area and the urban area shown in Fig. 2.1. [2]

(b) Use Fig. 2.1 to calculate the maximum difference between incoming (shortwave) solar radiation and reflected solar radiation. Show your working. [2]

(c) Explain why temperatures in urban areas are often higher than in surrounding areas. [6]

Rocks and weathering

3 Fig. 3.1 is a photograph which shows several mass movements on a slope in Malaysia.

(a) Identify **two** mass movements shown in Fig. 3.1. [2]

(b) Suggest how **one** mass movement shown in Fig. 3.1 might have occurred. [4]

(c) Explain how slopes may be modified to reduce mass movement. [4]

Section B

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

Hydrology and fluvial geomorphology

- 4 (a) (i) Define the fluvial terms *cavitation* and *traction*. [4]
- (ii) Briefly describe the conditions required for river beds to be eroded. [3]
- (b) Explain the formation of levées and floodplains. [8]
- (c) With the aid of examples, evaluate attempts to reduce the impact of river floods. [15]

Atmosphere and weather

- 5 (a) (i) Define the atmospheric terms *longwave radiation* and *convection*. [4]
- (ii) Briefly explain the formation of dew. [3]
- (b) Explain the latitudinal pattern of radiation excesses and deficits. [8]
- (c) 'The atmospheric impact of global warming depends on latitude.'
- With the aid of examples, how far do you agree? [15]

Rocks and weathering

- 6 (a) (i) Briefly describe the weathering process of pressure release (dilatation). [3]
- (ii) Explain how ocean trenches are formed. [4]
- (b) Explain the movement of material on slopes. [8]
- (c) 'Rainfall is the most important factor in the weathering of rocks.'
- With the aid of examples, how far do you agree? [15]

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which itself is a department of the University of Cambridge.