
GEOGRAPHY

9696/12

Paper 1 Core Physical Geography

October/November 2018

1 hour 30 minutes

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

An answer booklet is provided inside this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

Section A

Answer **all** questions.

Section B

Answer **one** question.

Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

All the resources referred to in the questions are contained in the Insert.

The number of marks is given in brackets [] at the end of each question or part question.

The total number of marks for this paper is 60.



This document consists of **3** printed pages, **1** blank page and **2** Inserts.

Section A

Answer **all** questions in this section.

Hydrology and fluvial geomorphology

- 1 Figs. 1.1 and 1.2 show storm hydrographs for drainage basins with different characteristics.
- (a) (i) In Fig. 1.1 which line, **W** or **X**, is for a large drainage basin? [1]
- (ii) In Fig. 1.2 which line, **Y** or **Z**, is for a forested drainage basin? [1]
- (b) With reference to Fig. 1.1, compare the shape of the two lines, **W** and **X**. [3]
- (c) Explain how soils and rock type influence the amount and rate of infiltration in a drainage basin. [5]
- [Total: 10]

Atmosphere and weather

- 2 Fig. 2.1 shows global surface pressure systems and surface winds for July.
- (a) Name the line labelled **A** shown in Fig. 2.1. [1]
- (b) Describe the pattern of surface winds south of the Equator shown in Fig. 2.1. [3]
- (c) Explain the distribution of global surface pressure systems shown in Fig. 2.1. [6]
- [Total: 10]

Rocks and weathering

- 3 Fig. 3.1 shows a cross-section of part of the Earth's crust.
- (a) (i) Name the landform labelled **P**. [1]
- (ii) Name the landform labelled **Q**. [1]
- (b) With reference to Fig. 3.1, describe the process labelled **R**. [3]
- (c) Explain the formation of volcanic island arcs. [5]
- [Total: 10]

Section B

Answer **one** question from this section.

Hydrology and fluvial geomorphology

- 4 (a) (i) Briefly describe how abrasion occurs in a river channel. [3]
- (ii) Describe the conditions under which deposition occurs in river channels. [4]
- (b) Explain the formation of **two** fluvial depositional landforms. [8]
- (c) With the aid of examples, examine the extent to which vegetation type and land use in a drainage basin affect the likelihood of river flooding. [15]

[Total: 30]

Atmosphere and weather

- 5 (a) (i) Define the terms *latent heat transfer* and *sublimation*. [4]
- (ii) Briefly describe the factors that influence the rate of evaporation. [3]
- (b) Explain how convection and frontal uplift of air can lead to precipitation. [8]
- (c) With reference to **one** urban area, assess the extent to which its climate is affected by human activity. [15]

[Total: 30]

Rocks and weathering

- 6 (a) (i) Define the terms *flow* and *fall* as they apply to mass movement. [4]
- (ii) Briefly describe how rainsplash can lead to sediment movement on hillslopes. [3]
- (b) Explain how weathering is affected by rock type and rock structure. [8]
- (c) With reference to **one** example, evaluate attempts to reduce mass movement. [15]

[Total: 30]

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 International Examinations Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cie.org.uk after the live examination series.

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