



Cambridge International AS & A Level

GEOGRAPHY

9696/12

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 is a photograph of a landscape in France.
- (a) Name landform A shown in Fig. 1.1. [1]
- (b) Describe the landscape features shown in Fig. 1.1. [3]
- (c) Explain how the landscape features shown in Fig. 1.1 may have formed. [6]

Atmosphere and weather

- 2 Fig. 2.1 shows global temperature change and carbon dioxide concentration in the atmosphere since 1850.
- (a) State the temperature change for 1910 shown in Fig. 2.1. [1]
- (b) Describe the trend in global temperature change and the trend in carbon dioxide concentration shown in Fig. 2.1. [4]
- (c) Explain why there might be a relationship between global temperature and carbon dioxide concentration in the atmosphere. [5]

Rocks and weathering

- 3 Fig. 3.1 shows types of weathering, rainfall and temperature.
- (a) State the weathering occurring at:
- (i) A [1]
- (ii) B. [1]
- (b) Calculate the range of mean annual rainfall for 'moderate chemical weathering with slight physical weathering'. Show your working. [2]
- (c) Explain how rainfall influences the type of weathering. [6]

Section B

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

Hydrology and fluvial geomorphology

- 4 (a) (i) Define the hydrological terms *interception* and *throughfall*. [4]
- (ii) Briefly explain the effect of evaporation in the drainage basin system. [3]
- (b) Explain how slopes and soils can affect the shape of a storm hydrograph. [8]
- (c) With the aid of examples, assess the relative importance of the factors that caused a recent river flood event. [15]

Atmosphere and weather

- 5 (a) (i) Define the terms *latent heat transfer* and *albedo*. [4]
- (ii) Briefly explain how convection causes precipitation. [3]
- (b) Explain the diurnal energy budget. [8]
- (c) 'Latitude is the most important factor in explaining seasonal variations in temperature.'
With the aid of examples, how far do you agree? [15]

Rocks and weathering

- 6 (a) (i) Contrast the process of sheetwash with that of rainsplash. [4]
- (ii) Briefly explain how ocean ridges are formed. [3]
- (b) Explain the main differences between the mass movement processes of flows and slides. [8]
- (c) With the aid of examples, assess the view that each type of plate boundary has different associated tectonic landforms. [15]

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