



Cambridge International AS & A Level

GEOGRAPHY

9696/31

Paper 3 Advanced Physical Geography Options

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:
Answer questions from **two** options.
For **each** option, follow the instructions inside on which questions to answer.
- 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.
- You should make reference to appropriate examples studied in the field or the classroom, even where such examples are not specifically requested by the question.

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.

2

Answer questions from **two** different options.

Tropical environments

If answering this option, answer Question 1 and **either** Question 2 **or** Question 3.

- 1 Fig. 1.1 is a climate graph for Kampala, Uganda, in Africa.
 - (a) Describe the climate of Kampala shown in Fig. 1.1. [4]
 - (b) Suggest reasons for the variation in precipitation shown in Fig. 1.1. [6]

- 2 Assess the extent to which the characteristics of soil profiles in savanna ecosystems are the result of climatic characteristics. [20]

- 3 Describe some of the problems of sustainable management of **either** the tropical rainforest ecosystem **or** the savanna ecosystem and evaluate attempted solutions to the problems. [20]

Coastal environments

If answering this option, answer Question 4 and **either** Question 5 **or** Question 6.

- 4 Fig. 4.1 shows marine processes operating on a coastline in north-east USA, in 2017.
 - (a) Describe the pattern of marine processes shown in Fig. 4.1. [4]
 - (b) Suggest **two** reasons for variations in rates of marine deposition. [6]

- 5 Assess the extent to which rock type and rock structure are important factors in explaining the characteristics of coastal cliffs. [20]

- 6 'The successful management of a stretch of coastline is helped by an understanding of the operation of sediment cells.'

With the aid of one or more examples, how far do you agree? [20]

Hazardous environments

If answering this option, answer Question 7 and **either** Question 8 **or** Question 9.

- 7** Fig. 7.1 shows warning times and hazard durations of hurricanes, earthquakes and volcanoes.
- (a) Contrast the warning times and hazard durations shown in Fig. 7.1. [3]
- (b) Explain the variations in the warning times and hazard durations shown in Fig. 7.1. [7]
- 8** 'The type of eruption is the most important factor influencing the hazards from volcanoes.'
- With the aid of examples, how far do you agree? [20]
- 9** Using a case study, assess the extent to which a hazardous environment can be sustainably managed. [20]

Hot arid and semi-arid environments

If answering this option, answer Question 10 and **either** Question 11 **or** Question 12.

- 10** Fig. 10.1 is a photograph which shows a hot arid environment in California, USA.
- (a) Describe the main features of the environment shown in Fig. 10.1. [4]
- (b) Suggest how temperature has influenced the features you described in (a). [6]
- 11** 'Soil degradation in semi-arid environments is the result of human factors.'
- With the aid of examples, how far do you agree? [20]
- 12** Assess the extent to which the global distribution of hot arid environments is the result of pressure and wind systems. [20]

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