

# Cambridge International AS & A Level

GEOGRAPHY 9696/33

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:

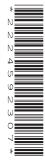
Answer questions from two options.

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.



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]

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#### 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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