

GEOGRAPHY

9696/31

Paper 3 Advanced Physical Geography Options

May/June 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.

In this paper there are four Physical Geography options.

Tropical environments

Coastal environments

Hazardous environments

Hot arid and semi-arid environments

Answer questions from **two** different options.

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.

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.

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 photograph which shows a tropical granite landscape in Africa.
- (a) With the aid of a labelled diagram, describe the landforms shown in Fig. 1.1. [4]
- (b) Explain the role of deep weathering in the development of the granite landforms you described in (a). [6]
- 2 'The intertropical convergence zone (ITCZ) is the most important control of tropical climates.'
- With reference to the climatic characteristics of **both** humid tropical and seasonally humid tropical climates, how far do you agree with this statement? [20]
- 3 For **one** tropical ecosystem, describe the characteristics of the nutrient cycle and assess how far human factors have affected the nutrient cycle. [20]

[Total: 30]

Coastal environments

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

- 4 Fig. 4.1 shows the development of a cliff and a wave-cut platform.
- (a) Describe the changes shown in Fig. 4.1. [3]
- (b) Explain the role of sub-aerial processes in the formation of the coastal landforms shown in Fig. 4.1. [7]
- 5 Evaluate the roles of marine transportation and deposition in the shaping of coastal landforms. [20]
- 6 Assess the relative importance of climate change as a threat to coral reefs. [20]

[Total: 30]

Hazardous environments

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

- 7 Fig. 7.1 shows two types of mass movement.
- (a) Describe the nature of the two types of mass movement shown in Fig. 7.1. [4]
- (b) Explain the causes of the types of mass movement shown in Fig. 7.1. [6]
- 8 'The hazardous impact of earthquakes depends on the levels of preparedness and monitoring.'
- How far do you agree with this view? [20]
- 9 Evaluate the view that primary impacts from large scale atmospheric disturbances are greater than secondary impacts. [20]
- [Total: 30]

Hot arid and semi-arid environments

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

- 10 Fig. 10.1 shows desert landforms created by water.
- (a) Describe the fluvial processes which created the landforms shown in Fig. 10.1. [4]
- (b) Explain the role of Pleistocene pluvials in the development of any **two** landforms shown in Fig. 10.1. [6]
- 11 To what extent is the lack of precipitation the only climatic feature of arid environments? [20]
- 12 Assess the extent to which **either** a hot arid **or** a semi-arid environment can be sustainably managed. [20]
- [Total: 30]

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