



Cambridge International AS & A Level

GEOGRAPHY

9696/03

Paper 3 Advanced Physical Geography Options

For examination from 2020

SPECIMEN PAPER

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.



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 limestone (tower karst) landscape.
- (a) With the aid of a labelled diagram, describe the landforms shown in Fig. 1.1. [4]
- (b) Explain the roles of rock type and rock structure in the development of the landforms you described in (a). [6]
- 2 'Sustainable management in tropical environments is difficult.'
- For **either** the rainforest ecosystem **or** the savanna ecosystem, how far do you agree? [20]
- 3 For **one** tropical ecosystem, describe the nature of the vegetation and assess how far factors other than climate have influenced the nature of the vegetation. [20]

Coastal environments

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

- 4 Fig. 4 shows a stretch of coastline before and after disturbance of a sediment cell. Fig. 4.1 shows an undisturbed sediment cell and Fig. 4.2 shows the sediment cell after disturbance.
- (a) Describe the changes shown in Fig. 4.2. [4]
- (b) Explain how the changes you have identified in (a) have affected the operation of the sediment cell shown in Fig. 4.1. [6]
- 5 Assess the relative importance of marine erosion and sub-aerial processes in shaping the landforms of rocky coastlines. [20]
- 6 With the aid of one or more examples, assess the extent to which soft engineering approaches have more advantages than hard engineering approaches when managing a coastline sustainably. [20]

Hazardous environments

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

- 7 Fig. 7.1 shows the vertical drop and horizontal travel distance of two volcanic hazards.
- (a) Compare the relationship between vertical drop and horizontal travel distance of the volcanic hazards shown in Fig. 7.1. [4]
- (b) Outline how the information shown in Fig. 7.1 can be used to predict the potential impacts of the **two** hazards on lives and property. [6]
- 8 'Hazard mapping is the most effective way of reducing the impact of earthquakes on lives and property.'
- How far do you agree with this view? [20]
- 9 Assess the extent to which the hazardous effects of tornadoes are different from those of tropical cyclones. [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 shows areas at high risk from desertification.
- (a) Describe the distribution of areas with high risk of desertification shown in Fig. 10.1. [4]
- (b) Outline possible reasons for the distribution of areas with a high risk of desertification that you have described in (a). [6]
- 11 Evaluate the importance of the role of Pleistocene pluvials in the development of desert landforms. [20]
- 12 'Humans can effectively manage arid environments.'
- How far do you agree? [20]

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Copyright Acknowledgements:

Question 1 © www.fotogeographic.de/thema_kaust/images/tk_moon1a.jpg; 6 April 2011.

Question 7 © A J Gerrard; *Mountain Environments: An Examination of the Physical Geography of Mountains*; The MIT Press; 1990.

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