



**GEOGRAPHY (PRINCIPAL)**

Paper 1 Global Environments

**9768/01**

**May/June 2017**

**1 hour 30 minutes**

Additional Materials: Answer Booklet/Paper

**READ THESE INSTRUCTIONS FIRST**

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use an HB pencil for any diagrams or graphs.

Do not use paper clips, glue or correction fluid.

Answer **two** questions, **one** from Section A and **one** from Section B.

Candidates are encouraged to support their answers with appropriate examples, sketch maps and diagrams.

The Insert contains all the Figures and the Photographs referred to in the questions.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.

The syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 3 Pre-U Certificate.

This document consists of **4** printed pages and **1** Insert.

## Section A

Answer **one** question from this section.

### Hot Arid and Semi-Arid Environments

1 (a) Photograph A shows an area in a hot arid environment.

- (i) Outline the physical features of the hot arid landscape shown in Photograph A. [4]
- (ii) Explain **two** ways in which the traditional lifestyle of the population is adapted to a hot arid environment. [6]

(b) **EITHER**

- (i) Discuss the relative merits of strategies which have been implemented to combat desertification. [15]

**OR**

- (ii) 'Hot arid and semi-arid landscapes are not solely the result of processes operating in the present day.'

Discuss the validity of this statement. [15]

### Glacial and Periglacial Environments

2 (a) Fig. 1A shows a temperature graph for the last 17 000 years for central Greenland. Fig. 1B shows the location of Greenland.

- (i) Describe the trends in temperature shown in Fig. 1. [4]
- (ii) Explain how and why the temperature changes may have influenced the ice cover in Greenland over the period shown in Fig. 1. [6]

(b) **EITHER**

- (i) 'Processes of frost weathering and mass movement produce clearly identifiable landforms in a periglacial environment.'

Examine the validity of this statement. [15]

**OR**

- (ii) 'The opportunities for human activity in **either** a glacial **or** a periglacial environment outweigh the constraints.'

To what extent do you agree with this statement? [15]

### Coastal Environments

3 (a) Fig. 2 shows a cartoon illustrating the threats to a coral reef ecosystem.

- (i) Outline **four** threats shown in Fig. 2. [4]
- (ii) Explain the ways in which **two** of the threats you have described in (a)(i) may affect the conditions necessary for the growth and/or survival of coral reefs. [6]

(b) EITHER

- (i) Examine the extent to which cliff form is the result of its geology. [15]

OR

- (ii) Examine the relative merits of managed realignment in the protection of coastal environments. [15]

### Section B

Answer **one** question from this section.

### Tropical Environments

4 (a) Fig. 3 shows the nutrient cycle for a tropical rainforest ecosystem. Photograph B shows a profile of a tropical soil.

- (i) Using Fig. 3, describe the characteristics of the nutrient cycle in the tropical rainforest ecosystem. [4]
- (ii) Explain the formation of the tropical soil shown in Photograph B. [6]

(b) EITHER

- (i) Discuss the extent to which conservation of tropical rainforest ecosystems is essential both at a local and at a global scale. [15]

OR

- (ii) 'Responsible tourism is not the only way in which tropical rainforest ecosystems may be managed sustainably.'

Examine the validity of this statement. [15]

## Temperate Environments

5 (a) Figs. 4A and 4B show two zonal soils found in temperate environments.

- (i) Identify the zonal soil shown in Fig. 4A and briefly outline its principal characteristics. [4]
- (ii) Explain how processes operating on the soil shown in Fig. 4B produce its characteristic features. [6]

(b) EITHER

- (i) “Temperate woodlands are a valuable and irreplaceable resource and a priority for conservation.” JNCC (Joint Nature Conservation Committee, 2013).

Discuss the extent to which conservation initiatives are addressing this opinion of the JNCC. [15]

OR

- (ii) To what extent are the effects of ecological change on the structure and functioning of temperate grasslands the result of natural factors? [15]

## The Atmospheric Environment

6 (a) Figs. 5A and 5B show the patterns of air and oceanic circulation in the southern Pacific Ocean.

- (i) Identify the patterns shown in Figs. 5A and 5B and describe the patterns shown in Fig. 5B. [4]
- (ii) Explain **two** ways in which the patterns of air and oceanic circulation may have economic implications for the Pacific region. [6]

(b) EITHER

- (i) ‘Anticyclonic weather may provide opportunities for human activity.’

Discuss the validity of this statement. [15]

OR

- (ii) Discuss the extent to which the impacts of global warming can be managed. [15]

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