

# **Cambridge International AS & A Level**

## GEOGRAPHY

Paper 1 Core Physical Geography

9696/11

**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: Section A: answer all questions. Section B: answer one question.
- 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.

#### 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.



#### Section A

Answer all questions in this section. All questions carry 10 marks.

### Hydrology and fluvial geomorphology

- 1 Fig. 1.1 shows some components of the drainage basin system.
  - (a) Using Fig. 1.1, name:(i) A [1]
    - (ii) B. [1]
  - (b) Describe the process of throughflow in the drainage basin system. [3]
  - (c) Use Fig. 1.1 to explain how land use can affect the movement of water in a drainage basin.

[5]

Atmosphere and weather

- **2** Fig. 2.1 shows an energy balance for a rural area and for an urban area.
  - (a) State **two** differences in the energy balance between the rural area and the urban area shown in Fig. 2.1. [2]
  - (b) Use Fig. 2.1 to calculate the maximum difference between incoming (shortwave) solar radiation and reflected solar radiation. Show your working. [2]
  - (c) Explain why temperatures in urban areas are often higher than in surrounding areas. [6]

## **Rocks and weathering**

**3** Fig. 3.1 is a photograph which shows several mass movements on a slope in Malaysia.

(a)	Identify <b>two</b> mass movements shown in Fig. 3.1.	[2]
(b)	Suggest how one mass movement shown in Fig. 3.1 might have occurred.	[4]

(c) Explain how slopes may be modified to reduce mass movement. [4]

### Section B

Answer **one** question from this section. All questions carry 30 marks.

Hydrology and fluvial geomorphology						
4	(a)	(i)	Define the fluvial terms cavitation and traction.	[4]		
		(ii)	Briefly describe the conditions required for river beds to be eroded.	[3]		
	(b)	Exp	Explain the formation of levées and floodplains.			
	(c)	Wit	h the aid of examples, evaluate attempts to reduce the impact of river floods.	[15]		
Atmosphere and weather						
5	(a)	(i)	Define the atmospheric terms longwave radiation and convection.	[4]		
		(ii)	Briefly explain the formation of dew.	[3]		
	(b)	Explain the latitudinal pattern of radiation excesses and deficits.				
	(c)	'The atmospheric impact of global warming depends on latitude.'				
		Wit	h the aid of examples, how far do you agree?	[15]		
Rocks and weathering						
6	(a)	(i)	Briefly describe the weathering process of pressure release (dilatation).	[3]		
		(ii)	Explain how ocean trenches are formed.	[4]		
	(b)	Explain the movement of material on slopes.				
	(c)	'Ra	'Rainfall is the most important factor in the weathering of rocks.'			
		With the aid of examples, how far do you agree?				

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