



Surname \_\_\_\_\_

Other Names \_\_\_\_\_

Centre Number \_\_\_\_\_

Candidate Number \_\_\_\_\_

Candidate Signature \_\_\_\_\_

I declare this is my own work.

# **A-level GEOGRAPHY 7037/1**

**Paper 1 Physical Geography**

**Time allowed: 2 hours 30 minutes**

## **MATERIALS**

**For this paper you must have:**

- the colour insert (enclosed)
- a pencil
- a rubber
- a ruler.

**You may use a calculator.**

**At the top of the page, write your surname and other names, your centre number, your candidate number and add your signature.**

**[Turn over]**



**BLANK PAGE**



## INSTRUCTIONS

- Use black ink or black ball-point pen.
- Answer ALL questions in Section A.
- Answer EITHER Question 2 OR Question 3 OR Question 4 in Section B.
- Answer EITHER Question 5 OR Question 6 in Section C.
- You must answer the questions in the spaces provided. Do not write on blank pages.
- If you need additional extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.

## INFORMATION

- The marks for questions are shown in brackets.
- The total number of marks available for this paper is 120.

**DO NOT TURN OVER UNTIL TOLD TO DO SO**



**SECTION A**

**Water and carbon cycles**

**Answer ALL questions in this section.**

**0 1 . 1**

**Outline the relationship between the water cycle and the carbon cycle in the atmosphere. [4 marks]**

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**[Turn over]**



**FIGURE 1, on pages 2 and 3 of the insert, shows the impact of different rates of deforestation and afforestation upon land surface temperature (LST) at different latitudes. The data was collected between 2000 and 2011.**

**0 | 1 | . | 2**

**Analyse the data shown in FIGURE 1. [6 marks]**

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[Turn over]



**FIGURE 2, on pages 4 and 5 of the insert, shows a simplified version of Europe's forest carbon cycle.**

**0 1 . 3**

**Using FIGURE 2 and your own knowledge, assess the implications of the data for attempts to manage carbon transfers. [6 marks]**

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**[Turn over]**



0 1 . 4

**With reference to a river catchment that you have studied, assess the potential factors which can impact upon the flood hydrograph. [20 marks]**

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**[End of Section A]**

**[Turn over for Section B]**



**SECTION B**

**Answer ONE question in this section.**

**Answer EITHER Question 2 OR Question 3 OR Question 4.**

**QUESTION 2 Hot desert systems and landscapes**

**0 | 2 | . | 1**

**Outline the role of wind in the process of transport in hot deserts. [4 marks]**

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**[Turn over]**



**FIGURES 3a and 3b are on pages 6 and 7 of the insert.**

**FIGURE 3a shows average total rainfall (1979–2009) between November and April measured at multiple recording stations across Saudi Arabia.**

**FIGURE 3b shows average total rainfall (1979–2009) between June and September measured at multiple recording stations across Saudi Arabia.**

**0 2 . 2**

**Analyse the data shown in FIGURE 3a and FIGURE 3b.  
[6 marks]**

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**FIGURE 4, on page 8 of the insert, shows a landscape in the Namib Desert in southern Africa.**

**0 2 . 3**

**Using FIGURE 4 and your own knowledge, assess the relative importance of factors leading to the development of this landscape. [6 marks]**

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**[Turn over]**



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To what extent can an understanding of feedback systems help to reduce the problem of desertification?  
[20 marks]

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**[End of Question 2]**

**[Turn over]**



**QUESTION 3 Coastal systems and landscapes**

**03 . 1**

**Outline the role of waves in the transportation of sediments at the coast. [4 marks]**

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**[Turn over]**



**FIGURE 5, on page 9 of the insert, shows the distribution of coastal erosion and accretion (sediment build up) across selected European coastlines in 2004.**

**03 . 2**

**Analyse the data shown in FIGURE 5. [6 marks]**

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**FIGURE 6, on page 10 of the insert, is a photograph of a landform located in the Humber Estuary, UK.**

**0 3 . 3**

**Using FIGURE 6 and your own knowledge, assess the relative importance of factors leading to the development of this landform. [6 marks]**

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**[Turn over]**



03 . 4

To what extent can an understanding of feedback systems help with the management of ONE OR MORE coastal landscapes that you have studied? [20 marks]

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**[End of Question 3]**

**[Turn over]**



**QUESTION 4 Glacial systems and landscapes**

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**Outline processes by which glaciers erode the landscape. [4 marks]**

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**[Turn over]**



**FIGURE 8, on page 14 of the insert, is an aerial photograph of a periglacial landscape in northern Canada.**

**0 4 . 3**

**Using FIGURE 8 and your own knowledge, assess the relative importance of factors leading to the development of this landscape. [6 marks]**

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**[Turn over]**



0 4 . 4

**To what extent can an understanding of feedback systems help with the management of ONE OR MORE cold environments that you have studied? [20 marks]**

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**[End of Question 4]**

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**SECTION C**

**Answer ONE question in this section.**

**Answer EITHER Question 5 OR Question 6.**

**QUESTION 5 Hazards**

**0 5 . 1**

**Outline the concept of the Hazard Management Cycle.  
[4 marks]**

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[Turn over]



**FIGURE 10, on page 20 of the insert, shows information about the 2010 earthquake in Haiti.**

**0 5 . 3**

**Using FIGURE 10 and your own knowledge, assess the challenges in managing an event such as this. [9 marks]**

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**0 5 . 4**

**How far do you agree that global governance is crucial in meeting the challenge of reducing incidence of wildfires?  
[9 marks]**

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0 5 . 5

**To what extent does plate tectonic theory help in understanding the development of landforms associated with plate movement? [20 marks]**

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[End of Question 5]

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**QUESTION 6   Ecosystems under stress**

**06 . 1**

**Outline the effect of human activity on succession in ONE plagioclimax that you have studied (eg heather moorland). [4 marks]**

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**[Turn over]**



**FIGURE 11, on page 21 of the insert, shows selected climate extremes and impacts affecting coral and forests in tropical and sub-tropical regions.**

**06 . 2**

**Analyse the data shown in FIGURE 11. [6 marks]**

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[Turn over]



**FIGURE 12, on page 22 of the insert, shows information about coral reefs.**

**0 6 . 3**

**Using FIGURE 12 and your own knowledge, assess the implications of this information for the management of coral reefs. [9 marks]**

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**0 6 . 4**

**How far do you agree that global governance has a role to play in the conservation of the savanna grassland biome? [9 marks]**

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| For Examiner's Use |      |
|--------------------|------|
| Section            | Mark |
| A                  |      |
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| C                  |      |
| <b>TOTAL</b>       |      |

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**G/KL/Jun21/7037/1/E2**

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