

1 hour 15 minutes

### **OXFORD CAMBRIDGE AND RSA EXAMINATIONS Advanced Subsidiary GCE**

### **GEOGRAPHY A**

The Physical Environment Friday 26 MAY 2006

Afternoon Candidates answer on the question paper.

An insert is enclosed with this question paper.

No additional materials are required.

Candidate Name							
Centre Number				Candidate Number			

#### TIME 1 hour 15 minutes

### INSTRUCTIONS TO CANDIDATES

- Write your name, Centre number and candidate number in the boxes above.
- Answer all the questions.
- Write your answers, in blue or black ink, in the spaces provided on the question paper.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- Do not write in the bar code. Do not write in the grey area between the pages.
- DO NOT WRITE IN THE AREA OUTSIDE THE BOX BORDERING EACH PAGE. ANY WRITING IN THIS AREA WILL NOT BE MARKED.

### INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The Insert contains maps and diagrams for use with questions.
- The total number of marks for this paper is 100.
- You will be awarded marks for the quality of written communication where an answer requires a piece of extended writing.
- Even where not specifically asked for, credit will be given for sketch maps and diagrams.

FOR EXAMINER'S USE			
1			
2			
3			
4			
TOTAL			

# **Hydrological Systems**

) Wh	at is meant by the term 'infiltration'?
) Stu	dy Fig. 1 (Insert), which shows the process of overland flow.
(i)	State and explain <b>two</b> factors that may affect the position of the water table show Fig. 1.
(ii)	A rising water table is one cause of overland flow. Explain <b>one</b> other cause of overland.

	(iii)	Suggest <b>one</b> reason why throughflow becomes slower with increased depth.
		[4]
(c)		ng examples you have studied, describe and explain how different land uses will affect the s, stores and outputs of water within a drainage basin.
		[10]

[Total: 26 marks] **[Turn over** 

# **Ecosystems**

2	(a)	(i)	What is meant by the term 'vegetation succession'?
			[2]
		(ii)	Study Fig. 2a (Insert), which shows a typical vegetation succession.  Describe and suggest reasons for the changes over time shown in Fig. 2a.
			[10]

(b)	Stu	dy Fig. 2b (Insert), which shows the trophic pyramid for a deciduous woodland.
	(i)	What is meant by the term 'trophic level'?
		[2]
	(ii)	Suggest reasons why Net Primary Productivity (NPP) decreases up the trophic pyramid shown in Fig. 2b.
		[6]
(c)	Stat	e and explain <b>two</b> factors that might prevent an ecosystem from reaching its climax.
		[6]
		[Total: 26 marks]

# **Atmospheric Systems**

3	(a)	Stu	dy Fig. 3 (Insert), which shows the main air masses which affect the British Isles.
		(i)	What is meant by the term 'air mass'?
			[2]
		(ii)	Explain why the air masses shown vary in their characteristics.
			[6]
		(iii)	Choose <b>one</b> air mass and suggest the weather it brings to the British Isles in winter.

(b)	Stu	dy Fig. 4 (Insert), which shows the variation of global energy budgets with latitude.
	(i)	Describe and suggest reasons for the pattern shown.
		[6]
	(ii)	Outline <b>two</b> ways in which energy is transferred from areas of surplus to areas of deficit.
		[4]
		[Total: 24 marks]

# Lithosphere

	ig. 5a (Insert), which is a photo of a valley in North Yorkshire. The valley is formed in e and trends east-west. Fig. 5b (Insert) shows a sketch section across the valley.
(a) (i)	State <b>two</b> inputs to a slope system.
	[2]
(ii)	State <b>two</b> outputs of a slope system.
	[2]
(b) (i)	Describe the sketch section across the valley.
(D) (I)	Describe the sketch section across the valley.
	[4]
(ii)	Identify and describe <b>two</b> factors that might control the slope form.
	[6]
	Ini

(c)

Describe and explain the processes of mass movement that are likely to occur in this valley.
[10]
[Total: 24 marks]

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