

Please write clearly i	in block capitals.	
Centre number	Candidate number	
Surname		
Forename(s)		
Candidate signature	I declare this is my own work.	

A-level **GEOGRAPHY**

Paper 1 Physical Geography

Time allowed: 2 hours 30 minutes

For Examiner's Use

Mark

Section

Α

В

С

TOTAL

Materials

For this paper you must have:

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

You may use a calculator.

Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- 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 outside the box around each page or 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.



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]
	Extra space	



	Figure 1 is in the insert.
	Figure 1 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]
	Extra space
	Ougstion 4 continues on the next ness
	Question 1 continues on the next page



	Figure 2 is in the insert.
	Figure 2 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]
	Extra space



0 1.4	With reference to a river catchment that you have studied, assess the potentiactors which can impact upon the flood hydrograph.	
	lactors which can impact upon the hood hydrograph.	[20 marks]





Extra angel
Extra space



36

Do not write outside the box

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]
	Extra enace	
	Extra space	



	Figures 3a and 3b are in 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]
	Extra space
	Question 2 continues on the next page



Figure 4 shows a landscape in the Namib Desert in southern Africa.





Note: The landforms in this landscape are aligned approximately north-west to south-east and extend from between 16 km to 32 km in length, reaching heights between 60 metres to 240 metres. The sediment source is the Orange River, several kilometres away.

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]
	-



11
Extra space
Question 2 continues on the next page



0 2 . 4	To what extent can an understanding of feedback systems help to reduce problem of desertification?	e the [20 marks]



Extra space	
Extra space	
Extra space	





36

XX
找名校 导师
Щ
豖
1m
프
긤
-
\blacksquare
田上
ァ
小草线上
114
×π
\vdash
上辅导
4(11
$\overline{}$
釯
货信
။
9
*
뺸
44
程序同名
ᅏ
щИ
$\overline{}$

·
End of Question 2



Question 3	Coastal systems and landscapes	
0 3.1	Outline the role of waves in the transportation of sediments at the coast.	[4 marks]
	Extra space	

Question 3 continues on the next page





	Figure 5 is in the insert.
	Figure 5 shows the distribution of coastal erosion and accretion (sediment build up) across selected European coastlines in 2004.
0 3 . 2	Analyse the data shown in Figure 5 .
	[6 marks]
	Evtra appea
	Extra space



Figure 6 is a photograph of a landform located in the Humber Estuary, UK.





Note: This landform extends about 5 km across the Humber Estuary and is only 50 metres wide at its narrowest point. The Holderness coastline to the north comprises mainly boulder clay, which is unconsolidated material deposited at the end of the last ice age.

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]



Extra space			
Extra space			
	Extra space		



0 3 . 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]





Evtra enace
Extra space



36

Do not write outside the box

· · · · · · · · · · · · · · · · · · ·	

End of Question 3



Question 4	Glacial systems and landscapes	
0 4 . 1	Outline processes by which glaciers erode the landscape.	[4 marks]
		·
	Extra space	



	Figure 7 is in the insert.
	Figure 7 shows the surface velocity of various glaciers, including Thwaites Glacier, Antarctica.
0 4 2	Analyse the data shown in Figure 7 .
	[6 marks]
	Extra space
	Question 4 continues on the next page





Figure 8 is an aerial photograph of a periglacial landscape in northern Canada.

Figure 8



Note: There are thousands of small, medium and large scale lakes in this region. This image was taken in early summer and much of the ice has yet to thaw. Local relief and other aspects of geomorphology determine the rate at which ice melts.

0 4 . 3	leading to the development of this landscape.	or ractors
	iodanig to the development of the landocape.	[6 marks]



	25
Extra space	
	Question 4 continues on the next page



ñ
₹
X)
业
≝
급
-
Υ.
世
用小早戏_
1
₩
in
⋈
小無口
叢
业
-
_
ii Fi
三 到
则
则
则
则
则
则
则
则
则
言小種/予
则

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]



_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
_	
- - E	Extra space
- - E -	Extra space
- - E -	Extra space
- - E	Extra space
- - E - -	Extra space
- - E - -	Extra space
- - E - -	Extra space
E	Extra space
- - E - -	Extra space
E	Extra space
E	Extra space
- - - - - -	Extra space
- - - - -	Extra space
- E	Extra space
- E - -	Extra space
- E	Extra space
- E	Extra space
- E	Extra space
E	Extra space
- E	Extra space
E	Extra space



36

- 1 to 11 t
End of Question 4
Find of Continu D
End of Section B



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]
	Extra space	

Question 5 continues on the next page





•
শ
戊化文化
Ť.
加久叫言
7
40
Ë
급
_
正
ᄪ
_
用小早戏
₩
in
ж
Ĺ
11
#
#
40
41
41
愈仙/
愈仙/
愈仙/
愈仙/

	Figures 9a-9d are in the insert.	
	Figures 9a-9d show information about volcanic eruptions.	
0 5 . 2	Assess the usefulness of Figures 9a-9d in presenting information on	
	volcanic eruptions.	[6 marks]
	Extra space	



	Figure 10 is in the insert.	
	Figure 10 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	;]
		_
		_
		_
		_
		_
		_
		_
		_
		_
		_
		_
		_
		_
		_
		_
		-
	Extra space	_
		-
		-
		-
		-





0 5 . 4	How far do you agree that global governance is crucial in meeting the challenge of
	reducing incidence of wildfires?
	[9 marks]



	Extra space
0 5 . 5	To what extent does plate tectonic theory help in understanding the development of landforms associated with plate movement? [20 marks]







	Do not write outside the box
Extra space	
	_
	_
	_
	ind Pe
	ersona
	l Tuto
	r from
	www.
	Find Personal Tutor from www.wisesprout.co.uk
	\\ \\ \\ \\ \
	~~ ~~
	找名校导师,用小
	端 ————————————————————————————————————
	草线上辅导(—— —— —— —— —— —— —— —— —— —— —— —— ——
-	(被信小程序司名) 48 回名)
End of Question 5	
	1



Question 6	Ecosystems under stress
0 6 . 1	Outline the effect of human activity on succession in one plagioclimax that you have studied (eg heather moorland).
	[4 marks]
	Extra space



	Figure 11 is in the insert.
	Figure 11 shows selected climate extremes and impacts affecting coral and forests in tropical and sub-tropical regions.
0 6 2	Analyse the data shown in Figure 11 .
	[6 marks]
	Extra space
	Question 6 continues on the next page





5
Τķ.
公允久心
~
40
化交叫号
_
用小早线工铺守
_
É
ir
戏工細
П
誰
40
40
40
_
_
_
(食信
_
(食信
(食信
(食信

	Figure 12 is in the insert.	
	Figure 12 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]
	Extra space	



Do not write outside the box

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]





	_
	=
	\bar{c}
	Ξ
	ַ
	<u>u</u>
	ď
	Ċ
	Ē
	<u>a</u>
	-
	-
	ב
	9
	=
	C
	Ξ
	_
	<
	5
	2
	≨
	:
	≷
	ū
	ά
	Ű.
•	C
	Ξ
	=
	⊆
	Ξ
	ς
	۲
	c
	7

isesprout.co.uk
找名校导师
, 用小草线上辅导 (
(微信小程序同名

	Extra space
0 6 . 5	With reference to the tropical rainforest biome, assess the view that latitude is the
0 0 . 3	most important factor in its natural development. [20 marks]



Do not write outside the box





	Do not write outside the box
Extra space	
	7
	מדפ
	rsonal
	lutori
	rom W
	WW.WIS
	Find Personal Lutor from www.wisesprout.co.uk
	IT.CO.UF
	农 名交争事,用少
	44 4 4 7
	早戏二辈子
	48 48
END OF QUESTIONS	
END OF QUESTIONS	







Question number	Additional page, if required. Write the question numbers in the left-hand margin.



Question number	Additional page, if required. Write the question numbers in the left-hand margin.



Question number	Additional page, if required. Write the question numbers in the left-hand margin.



Question number	Additional page, if required. Write the question numbers in the left-hand margin.



There are no questions printed on this page

DO NOT WRITE ON THIS PAGE ANSWER IN THE SPACES PROVIDED

Copyright information

For confidentiality purposes, all acknowledgements of third-party copyright material are published in a separate booklet. This booklet is published after each live examination series and is available for free download from www.aqa.org.uk.

Permission to reproduce all copyright material has been applied for. In some cases, efforts to contact copyright-holders may have been unsuccessful and AQA will be happy to rectify any omissions of acknowledgements. If you have any queries please contact the Copyright Team.

Copyright © 2021 AQA and its licensors. All rights reserved.



