Candidate Marks Report

Series : 6 2018

This candidate's script has been assessed using On-Screen Marking. The marks are therefore not shown on the script itself, but are summarised in the table below.

Centre No : Assessment Code : H481 Candidate No : Component Code : 01

Candidate Name:

Total Marks: 56 / 66

In the table below 'Total Mark' records the mark scored by this candidate. 'Max Mark' records the Maximum Mark available for the question.

Paper: H481/01 Paper 56 / 66 Total: Question Total / Max Mark Mark Mark In Total 1a NR / 8 1bi NR / 2 1bii NR / 4 1c NR / 3 1d AO1 NR / 8 2a 8 / 8 2bi 2 / 2 2bii 1 / 4 2c 3 / 3 2d AO1 8 / 8 2d AO2 8 / 8 3a NR / 8 3bi NR / 2 3bii NR / 4 3c NR / 3 3d AO1 NR / 8 3d AO2 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8 4c AO2 4 / 8				
Total: Question Total / Max	Paper:	H481/0	1	
Mark Mark In Total 1a	•	56 / 66		
1bi NR / 2 1bii NR / 4 1c NR / 3 1d AO1 NR / 8 1d AO2 NR / 8 2a 8 / 8 2bi 2 / 2 2bii 1 / 4 2c 3 / 3 2d AO1 8 / 8 3a NR / 8 3bi NR / 2 3bii NR / 4 3c NR / 3 3d AO1 NR / 8 3d AO2 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8	Question			In
1bii NR / 4 1c NR / 3 1d AO1 NR / 8 1d AO2 NR / 8 2a 8 / 8 2bi 2 / 2 2bii 1 / 4 2c 3 / 3 2d AO1 8 / 8 2d AO2 8 / 8 3a NR / 8 3bi NR / 2 3bii NR / 4 3c NR / 3 3d AO1 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8		-	-	
1c NR / 3 1d AO1 NR / 8 1d AO2 NR / 8 2a 8 / 8 2bi 2 / 2 2bii 1 / 4 2c 3 / 3 2d AO1 8 / 8 2d AO2 8 / 8 3a NR / 8 3bi NR / 2 3bii NR / 2 3bii NR / 4 3c NR / 3 3d AO1 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8		-		
1d AO1 NR / 8 1d AO2 NR / 8 2a 8 / 8 2bi 2 / 2 2bii 1 / 4 2c 3 / 3 2d AO1 8 / 8 2d AO2 8 / 8 3a NR / 8 3bi NR / 2 3bii NR / 2 3bii NR / 4 3c NR / 3 3d AO1 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8				
1d AO2 NR / 8 2a 8 / 8 2bi 2 / 2 2bii 1 / 4 2c 3 / 3 2d AO1 8 / 8 2d AO2 8 / 8 3a NR / 8 3bi NR / 2 3bii NR / 2 3bii NR / 4 3c NR / 3 3d AO1 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8	-	-	-	
2a 8/8 2bi 2/2 2bii 1/4 2c 3/3 2d AO1 8/8 2d AO2 8/8 3a NR/8 3bi NR/2 3bii NR/4 3c NR/3 3d AO1 NR/8 3d AO2 NR/8 4ai 3/4 4aii 1/3 4b 10/10 4c AO1 8/8		-	-	
2bi 2/2		-	-	
2bii 1 / 4			_	ν,
2c 3/3 2d AO1 8/8 2d AO2 8/8 3a NR/8 3bi NR/2 3bii NR/4 3c NR/3 3d AO1 NR/8 3d AO2 NR/8 4ai 3/4 4aii 1/3 4b 10/10 4c AO1 8/8	-			~
2d AO2 8 / 8 3a NR / 8 3bi NR / 2 3bii NR / 4 3c NR / 3 3d AO1 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8	2bii	-		~
2d AO2 8 / 8 3a NR / 8 3bi NR / 2 3bii NR / 4 3c NR / 3 3d AO1 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8	2c	3 /	3	
2d AO2 8 / 8 3a NR / 8 3bi NR / 2 3bii NR / 4 3c NR / 3 3d AO1 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8	2d AO1	8 /	8	
3bi NR / 2 3bii NR / 4 3c NR / 3 3d AO1 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8	2d AO2	8 /	8	V
3bii NR / 4 3c NR / 3 3d AO1 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8		NR /	8	
3c NR / 3 3d AO1 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4 4aii 1 / 3 4 4b 10 / 10 4 4c AO1 8 / 8		-		
3d AO1 NR / 8 3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8		-		
3d AO2 NR / 8 4ai 3 / 4 4aii 1 / 3 4b 10 / 10 4c AO1 8 / 8				
4ai 3 / 4		-	-	
4aii 1 / 3		-	-	
4b 10 / 10 4c AO1 8 / 8				~
4c AO1 8 / 8				~
	-			
4c AO2 4 / 8	4c AO1	8 /	8	\checkmark
	4c AO2	4 /	8	V

Question	Part
Question	Part

2	a)	A system can be defined as having
<u> </u>		inputs proasses and outputs. A system can
. <u></u> -		either be closed or open. A closed system has
	,	no energy or materials added to it while
·		an open system may allow for the addition of
		energy and materials. Globally the water
		which supplies and is locked up in glacies
		is a closed system as all the water which
		exists in the engest world is unchanging. On Al
		a more local scale clarial system can be
		open systems will materials and renergy being
· 	,	added to or taken from the systemathis is
		called me mass balance of me glacier.
		The inputs of a glacier are susse precipitation
		primarily falling on snow. This is usually higher
-		in higher altitude glaciated areas such as the
		Rockies in Canada where precipitation can be upto
, <u>a</u>		3 600mm per year while precipitation is lower in.
· · · · · · · · · · · · · · · · · · ·	<u>-</u>	high altitude locations like Greenland The
:	·	Suow is called accumulation, to the glacier
		system and it is what causes glacial advance.
<u> </u>		The process which operate within a glacier
		are forms of exosion and such as plucking and
		obrasion or weathering such as freeze traw. This
		occurs as the glacier =nsover downhill due to
		me free of gravity woorn based glaciers month
		slide on meltwater which produced subglacially
· · · · · ·		and the rate of this is typically faster than
-		Cold based glacies which are foren to bed Al



_ © OCF

Question Par	t .
	. inch. and only move several control in per year.
1	The glacial system also have outputs of thawing
	and melting producing meltitaterallhis is called
	ablation and leads to glacier retreat acalving is
	. also an output of the system where my ice hergs
	or ice shelves come away from the glacier 1
	and usually fall into the ocean e.g. the larenB
	ice shelf calving off the Antarctica Penninsula in 2002.
	The mass balance makes the glacier a system
	as more accumulation and less aboution, usually
<u> </u>	un colder seasons creates a positive mass balance
<u> </u>	and where ablation exceeds accumulation
	such as in winter Storme summer Agric mass
	.: balance à nogative un equilibreun line exists
	between the 2 & zones of acumulation a
	ablation where the 2 variables equal eachother A1
• I	1
2 6	1) 19 In order of rank:
	11., 14, 18, 20, (23); 34, 44, 49, 74
	median : is 23, as is middle value.
<u> </u>	
	11/11,140,181,20,25; 34,44,49,44,74
	1000 0000000000000000000000000000000000
	100 00 00 00 00 00 00 00 00 00 00 00 00
	130 CON TO TO TO TO
- 77 2-	- Parket Land State Bampur
	1QR=1Q-1Q = 44 - 18 = 2.6m/yr
	, , , ,,



_© OCR

Question	Part	
2	c)_	Landformi B soins i to be a ridge qu'ateral
		moratine. As the glacier moves pursugh the
		Uishoiped valley, the rice is strick to the sides
, ,		of the valley. The process of plucking and
<u> </u>		pasion occurs * which means the side of the
		glacier are picking up materials (till) on
ura .		and transporting it on the sides of the glacies.
		When the glacier retreats me moraine is
		deposited laterally as the glacier ice disperses
		into meltanter As the nage of moraine
		is & 5 mis high a significant amount of abrosson
		and placking must have been done to accumulate
		the anountry moraune is in it is
3		* As: the glacier moves down hill
		under the force of gravity
		and the first the same of the same of the same
2	di)	» PLAN: Dunnes Ota : laurentide : ice sheet.
š	1 .	Physical factors: Climate: Scandenavia ice
		bithology Show - degrees
	<u>.</u>	the second of icoshert for four femp year
,	ţ	eiospon low ppt
		Climate: glacialy + interglacials 60mm/yr
		" Pleistoceyle:; 18,000 years ago
	<u> </u>	SIZE Michenes, ension, sides of mountains
		ellipsodal basin, the when retreat:
		Lithology: Rosistant ofterops crag a tail
		logh x knochan topography. Granite x
		boalt.



Question	Part ———	<u>. </u>
2	<u>a),</u>	The northern parts of Municipota, ananana areas
		which have been shaped by the action of ice
		Sheets. The Lourentiele ice sheet which extended
		over much of Character North America during the
		last major glaciation in the Pleistocene around
	<u> ess.</u>	18,000 years has left several striking features.
	<u>. </u>	The physical factor which allowed this is sheet
	.,	to advance so fair is climated Glacides and inter-
	165	glacials have allowed like sheets to advance
	12 X	and enode land scapes to The glacial period allows
	<u>. Do</u>	for accumulation of suco to exceed aboution
	J. 1.	os fempliatures were more than 6°c colder
		than now and most of nothern hemisphere
		had temperatures below freezing for much of
		the year. Al The Mickenss and so pressure of
	 ;	hose ice sheets allowed for heavy exosion
	3 May .	of the bed nick essentially shaping mountains
, ,	. \$ - 3	and creating depression AZAS climate changes
	•	and & temperatures in crease the ke shorts
	15.4	have retreated which have uso shaped the
	ి. క	landscape Retreat of the laurential ice
	. , ,	sheet has fall caused istatic upliff in
		parts of thi Canadian Shield where the
		vock is booten using at lampy as it
		recovers from the previous heavy pressure
		of ice sheets Al As Ico sheets retreat
	-	ellipsodal basins are uncovered which are
		from meltwater entering depression formed
		from meltuator entering depression atomied
		-



■@ OCH

Question	Part	
- 2		by ension: Now however; dinater lass got
,	`	expluences bre me Candscape as due to
		ice sheet betreat there is less ensured
		and depositional empect. AZ
		lithology also plays an important ide in
		Shoping landscapes. The geology of Hunnesota
		is made up of mostly granite and basalt.
		This is expensely reststant work meaning
		evosion isn't very pronounced met though
		the ice does evode the states of Tandorson
		making some of the nock creating
		orag and tail features Alwith gently
		stoping ends where ico sheats have
	, , ,	efficiently absorbed noch and a gagged
		eage where ice sheets have purched
		away the pock These wag and tall
	<u> </u>	features along within lakes is called
		knock a lochan Appography: which is
		found in areas affected by ice sheets
		In conclusion dimate à a much morte
		eightential: force as even the most
<u> </u>		nest stant inche can be be evoded
3		when the size and pressure of the lie
	<u> </u>	sheet a larger enough in
.		May the the state of the transfer of the trans
		The second of the second of the second
		The trades of the Colors of the Marie Colors
	<u></u> .	- The waste that the test had
		SERVICE CONTRACT OF THE SERVICE

[OCG] OCG] OCG] OCGG] OCCGG] OCC



4 a) The map which shows precipitation totals across the USA indicates that generally there is a high total precipitation in the Suth Fact of the USA in states like Florida wash at 330 mm in highest 2016. Such high precipitation totals will encrease runoff overland to rivers which could result in potential flooding or kinest such as the dississippi inver. A high lued of kinest may also satisfact the growth. Increasing number even more as it cannot peno late the soil of the more have precipitation totals of about same min hugust 2016. This world greatly reduce number to viver causing them to day up, Soil to be evoded and blown away by wind due to dayness and cultimatley cause a drought with nater apple. 4 M. The colours of the choropleth map can some firmed be undistinguishable as well as exact precipitation is hard to accurately identify as the colours flow unto eachother. So the colour green could indicate precipitation amount of anything between a 170 mm. Additionally it doesn't last tend to show variation is marked regional for land to all of rainfall over time, it only indicates rainfall over time.	Question	Part	
the USA indicates that generally there is a high total precipitation in the South Fast of the USA in states like Florida wasts at 330 mm in August 2016 Such high precipitation totals will increase viewoff over land to views which could result in potential flooding of River such as the Mississippi niver. A high level of things may also sedivate the growth increasing niverful even more at it cannot periodite the soil whe precipitation totals of about agreatly reduce ninest to river coursing them to dury up., Soil to be evoded and blown away by wind due to dryness and cultimative cause a drought was no water has is present to take port in the nate cycle. (4. 10) We colours of the choropleth map can some times be undistinguishable as well as exact precipitation is hard to accurately iduntify as the colours flow into eachotive. So the colour green could indicate precipitation amounts of anything between 0-170 mm. Additivally it doesn't less tend to show variation established as tend to show variation established as tend to show variation established as tend to show	4.	a)-i,	The map which shows precipitation totals across
high total precipitation in the South East of the USA in States (ike Florida walk at 330 mm in August 2016 Such high precipitation totals will prices which could result in potential flooding on Rivers which could result in potential flooding on Rivers which could result in potential flooding on Rivers such as the Ussississippi inver. A high livel of himself may also sotiurate the grounds increasing nunoff even more as it cannot peno late the soil terms have precipitation totals of about same amount in August 2016. This would greatly reduce nunoff to viver causing them to day up. Soil to be evoded and blown away by wind due to dayness and cultimatery cause a drought in no water has in present to take part in the water cycle. (4 M)		1	
USA in states like Florida and at 330 mm in August 2016. Such high precipitation totals will precipitation found for precipitation and the dississispip inver. A high luvel of displaying also saturate the ground increasing numerical even more as it cannot peno late the soil previpe. West of the USA such as colifornion have precipitation totals of about base from in August 2016. This would greatly reduce number to river causing them to due by wind due to dry up. Soil to be enoded and blown away by wind due to dry ness and cultimattery cause a drought is no water has in present to take part in the water cycle. (4. 18) (2) The colours of the choroploth map can some times be undistinguishable as well as exact precipitation is hard to accurately identify so the colours flow into eachother so the colour green could indicate precipitation amounts of anything between 0-170 mm. Additionally it doesn't least tend to show variation assumed as the sould be sould be sould be sured to show variation assumed as anything between 0-170 mm.		L	l.
August 2016 Such high precipitation totals will spacease runoff overland to vives which could result in petential flooding of kines such as the dississippi river. A high livel of himself may also sectivate the grander increasing ninoff even more as it cannot peno late the soil of the west of the USA such as colifornia have precipitation totals of about equal ly reduce runoff to river causing them to day up. Soil to be enoded and blown away by wind due to dryness and cultimatery came a drought is no water has is present to take part in the nater capte. (4. 18) (4. 18) (4. 18) (5) (6) (7) (8) (8) (9) (10) (10) (10) (11) (11) (12) (13) (14) (15) (15) (16) (16) (17) (17) (16) (17) (17) (17) (18) (1		6	
result in potential flooding of kines which could result in potential flooding of kines such as we dississippi inver. A high livel of kinest may also saturate the growth increasing ninoff even more as it cannot peno (at the soil per phe west of the USA: Such as colifornia have precipitation totals of about expendence ninoff to river causing them to day up. Soil to be evoded and blown away by wind due to dayness and altimative cause a drought as no water has is present to take part in the nate capte. (***A)			1
residt in potential flooding of kites such as the Hississispi inver A high lived of dinoif may also saturate the growth increasing number even more as its cannot peno lote the soil with he we precipitation totals of about experiment in August 2016. This would greatly reduce runoif to river causing them to day up. Soil to be ended and blown away by wind due to dryness and altimatery came a drought is no water has is present to take part in the water apple. (4. 10) The colours of the choropleth map can some fines be undistinguishable as well as exact precipitation is hard to accurately identify as the colours flow into eachother so the colours of anything between 0-170mm. Additionally it doesn't resist tend to show variation is should appropriate to the show			
Mississippi inver. A high level of Minist ray also saturate the growth increasing nine of even more as it cannot peno (ate the soil DEV) The west of the USA such as colifornia have precipitation totals of about squeetly reduce runoff to river causing them to day up. Soil to be evoded and blown away by wind due to day nests and cultimative cause a drought is no water has is present to take part in the water cycle. (k. M) The colours of the choroploth map can some fines be undistinguishable as well as exact precipitation is hard to accurately identify as the colours flow into eachother so the colours flow into eachother so the colours of anything between 0-170mm. Additionally it doesn't level tend to show variation as stream of rainfall			
sutivate the growth increasing ninoff even more as its cannot peno (ate me soil the precipitation totals of about eye Dumm in Rugust 2016. This would greatly reduce ninoff to river causing them to day up, Soil to be enoded and blown away by wind due to duyness and cultimative cause a drought is no water has is present to take part in the water cycle 4 Dill The colours of the choropleth map; can some firmer be undistinguishable as well as exact precipitation is hard to accurately identify or the colours flow into eachother so the colour green could indicate precipitation amount of anything between 0-170mm. Additionally it doesn't less tend to show variation established regional parts of rainfall			Mississippi river. A high level of Manage may also
west of the USA: such as colifornia have precipitation totals of about equalment August 2016. This would greatly reduce runoff to river cousing them to day up, Soil to pe woded and blown away by wind due to any ness and altimativey came a drought is no water has is present to take part in the nater cycle (h) The colours of the choropleth map; can some fines be undistinguishable as well as exact precipitation is hard to accurately identify as the colours flow into eachother so the Colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't less tend to show Variation estimating anything between or rainfall	·-· · · · ·		saturate the grown increasing ninoff even
West of the USA: such as colifornion have precipitation totals of about law Dmm in August 2016. This would greatly reduce runoff to river causing them to duy up. Soil to be evoded and blown away by wind due to duyness and altimatley came a drought in no water have is present to take part in the water cycle (4 M) The colours of the choropleth map can some times be undistinguishable as well as exact precipitation is hard to accuratley identify as the colours flow into eachother so the colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't least tend to show variation established regionalization of rainfall	, Ç.,	293	more as it cannot peno (ate me soil PEV) me.
precipitation totals of about lease amm in August 2016. This would greatly reduce runoff to river causing them to day up. Soil to be evoded and blown away by wind due to duyness and cultimative came a drought is no water have is present to two part in the water cycle 4 B) 2011) The colours of the choropleth map can some times be undistinguishable as well as exact precipitation is hard to accurately identify as the colours flow into eachother so the colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't least tend to show variation established regionalization of rainfall	· · · · · ·	1	l • · · · - · · · · · · - · · · · · ·
August 2016. This would greatly reduce runoff to river causing them to dry up. Soil to be evoded and blown away by wind due to dryness and cultimative cause a drought is no water has is present to take part in the water cycle (4 M) (2) ii) The colours of the choropleth map can some times be undistinguishable as well as exact precipitation is hard to accurately identify as the colours flow into eachother so the Colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't less tend to show variation established regionalization of rainfall			
to niver causing them to dry up, Soil to be evoded and blown away by wind due to anyness and cultimative came a drought he no water has is present to take part in the nater cycle. (4 B) The colours of the choropleth map can some times be undistinguishable as well as exact precipitation is hard to accurately identify or the colours flow into eachother so the Colour green could indicate precipitation amount of anything between 0-170mm. Additionally it doesn't less tend to show variation established regional assessment of rainfall			
be evoded and blown away by wind due to dwyness and cultimatery came a drought is no water how is present to take part in the water cycle (4. M) (4. M) (4. M) (4. M) (5. M) (6. M) (6. M) (8. M) (8. M) (9. M) (9. M) (9. M) (1. M) (1. M) (1. M) (1. M) (1. M) (2. M) (3. M) (4. M) (5. M) (6. M) (6. M) (6. M) (7. M) (8. M) (8. M) (8. M) (8. M) (9. M) (· .	. 7. 2.11	to river causing them to duy up, Soil to
duyness and cultimatley came a drought in no water you is present to take part in the nater cycle (a)ii) The colours of the choropleth map can some times be undistinguishable as well as exact precipitation is hard to accurately identify as the colours flow into eachother so the colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't less tend to show variation established regional parts of rainfall		1	1.
4 M. The colours of the choropleth map can some times be undistinguishable as well as exact precipitation is hard to accuratley identify as the colours flow into eachother so the colours flow into eachother so the colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't less tend to show variation standard prainfall			
(* 18) (* 18) (* 18) (* 18) The colours of the choropleth map can some finner be undistinguishable as well as exact precipitation is hard to accuratley identify as the colours flow into eachother so the colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't rest tend to Show variation estassaggious transports of rainfall			
(4 M) (a) ii) The colours of the choropleth map can some finner be undistinguishable as well as exact precipitation is hard to accuratley identify as the colours flow into eachother so the colours flow into eachother so the colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't less tend to show variation established regional parts of rainfall			
Lines be undistinguishable as well as exact precipitation is hard to accuratley identify as the colours flow into eachother so the colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't less tend to show variation astronally anything between of rainfall	. ,	(3	. c. 12 2. 10 201 1 2 1 1 1 2 1 2 1 2 1 2 1 1 1 1
Lines be undistinguishable as well as exact precipitation is hard to accuratley identify as the colours flow into eachother so the colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't less tend to show variation astronally anything between of rainfall	4.	M).	Courties of Total Court of the
fines be undistinguishable as well as exact precipitation is hard to accurately identify as the colours flow into eachother so the colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't rend to show variation estassage regionalization of rainfall	<u>'</u>	$\omega \omega$	The colours of the choropleth map can some
precipitation is hard to accurately identify or the colours flow into eachother so the colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't rend to show variation established regressions of rainfall		ر .	times be undistinguishable as well as exact
colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't last tend to show variation established regionalization of rainfall		8.5	precipitation is hard to accurately identify
Colour green could indicate precipitation amounts of anything between 0-170mm. Additionally it doesn't rend to show variation established regressions of rainfall	<u> </u>		as the colours flow into eachother so the
Additionally it doesn't rend to show variation established regressions of rainfall			Colour green could indicate precipition
Haditionally it doesn't rend to show variation established regressions of rainfall			amounts of anything between 0-170mm.
variation established regionalization of rainfall			Additionally it doesn't least tend to show
l over time, it only indicates rainfall for			variation established regional sales of rainfall
			over time, it only indicates rainfall for



© OCR

Question	Part	
	(one month. The fact it is a precipitation total
	,	also does not indicate if most of the precipitation
		come at the beggining, middle or end of
		come at the beggining, middle or end of the month or if it is spread out equally
	b)	Feedback loops can be positive or negative.
		Positive feed back loops are created when a
٠ ٧.		Change to the carbon cycle incourages
		further changesen while negative feedback
		loops one created when a change leads to
•		the restoration of equilibration positive
	1.	Redback cycle of which affects the Carpon
		cycle is the release of Carbon dioxide into
		the atmosphere leads to an increased
		warning of atmospheric temperatures and as
		Cos is a greenhouse gas and contibutes to
		the enhanched greenhouse eyect more solar:
		radiation will be prapped creating increased
		melting of permations which is a major
		Store of conthis store of carbon well men
Σ.	ζ.,	be releaser into the atmosphere yeilaing
		un wen larger concentration of greenhouse
		gares and even more warming server example
	<u> </u>	in the Act Arctica tundos permatross melting
• .	<u> </u>	hes caused a 73% cocrease of con in amosph-
		eve which has lead to a tec warning
		of temperature since 2010 sen negative feed
_ :		back loop can also occur when
		Carbon is released unto the atmosphere



_@OCR

Question	Part	
	.c.y~ ·	as na higher concentrations of carbon dioxide
	15.5	in the atmosphere and apporter temperatures
		can stimulate plant growthers they absorb
		Cor via puoto synthesis while they grow
		resulting in a secrease of Courbon dioxide.
	3 80 3	in the atmosphere popical rainforests can
		sequester upto & 8t of Carbon per hectare per
		year mis creates a store of carbon in veg-
		letation as were is a from from the atmosphere
		to biomoss: This feed negative feedback cycle
		can however also turn back into a positive
		feedback as a y mere is more vegetation, it
		could lead to more de composition of the
		vegetation which results in more co, being
,-,>		released. SEEN L3
		N/ 001
4.	c) _v	PLAN:
**. 3*		DEPORESTATION.
	, ši · ·	Rate of 17,800km3/41 . Su 1970-2013
284		Road building w. burning:
		Con released as 180t/of Con in Firest trees
		Intoceptum. of the sy water
. 1.4.	11 11 1	The same of the sa
. iet.	1	FARMING / 10.
•	· · ·	- Peatlands - Soya cultivation, need 06m
		but of Im - 1.5m = Con water = fire
X	:: :1	Irrigation : water drained - Nation
		Sandytone aquifer Welnilling of of water Iday by libya for inigation.
<u> </u>	1110	water /day by Whya for inigation.



© OCR

Dari

Question		
4	<u>c)</u>	Deforestation and farming can dramatically
		affect the water and carroon cycles in
		Tropical Kainforests. These cycles are very
<u> </u>	·	delicate and disturbance can cause global
	· · ·	os well as local impact.
		Deforestation is a major issue in he
		Amazon vainforest as the rate of dejoresta-
	 	tion was 17,500 km 4 plan 1970-2013 with 15
		of primary forest being lot. As usually
		hopicien forest intercept 75% of
		precipitation and 25% is evaporated
		weating a water cycle which in
	* 1	Amazonia is especially interesting or
	PLC	80-1. of water is recycled in 5 days
-		deforestation means more water falls on
1.		soil instead of being entenepted
	• , .	as and as such ruroff and saturation
	· •	of soil increases as mo trees are need
,	,	to intercept. The nunoff then flows to
		rivers causing them to overflow massiley
		as cause flooding such on in Bolivia
		flooding of the maderia river killed 60
:		peoplification is a local scale change but
		globally the lack of water in the atm-
		offhere of the tropical vainforest as
		it is will in the invers causes
		duffly convection current to be dirupted
		and a decrease in precipitation of about 10% from the usual 2000 mm
		about 10% from the usual 2000 mm

9 OCR

Question

Part

Question	Part	
		per year vainfall The carroon cycle is
		aggetted as mere is loss vegetation to
		absorb con so greater concentratory
	.	of cor will be present.
		Farming can cause changes in the
		tropical rainforests in Indonesia,
		peatland is often over drained for soya
-	PLO	autivation to 1m-1.5m which
		reduces the water table leading to loss
		effective frond defences influencing
		wester cycles. Additionally these drained
		peatlands can catch fire which
		causes he be peat to combust and
<u> </u>	·	release coz which increases Carbon
		dioxide concentrations in the air.
		Irrigation can also drain underground
		aghijers and & soll degradation
		from monoculture of cops team
		Can imerersible nutrient: depletion in
		soils and the sols can no longer
	••••	Europe life vegetation which also is dirrupts the carbon and water apoles or vegetation links he 2 cycles.
		& dirrupts the carbon and water apollo
		as vegetation links he 2 cycles.
	···· · · · · · · · · · · · · · · · · ·	In microson of deforestation and
		faming significantly after the carbon
-	.*	faming significantly alter the carbon cycle & water cycle on both Gocal
		d global scales.
		13
		LZ



© OCR

Question	Part	
	:	
,		
	,	
•		
		the first of the same of the s
	,	
	· •	
		
5	·	
· · · · · · · · · · · · · · · · · · ·		
!	·	
		
<u>.</u>	· 	



Off Page Comments

Item Name	Comment
4c AO1	All annotations can be made on 1d AO1 page PLC - used to
	show place specific content Comprehensively describes the
	effects of deforestation and farming on the water and carbon
	cycles of a tropical rainforest, with effective place specific
	examples L 3 8 marks
2bi	Correct Answer (tick) Working (DEV)
2c	(tick) Source of material through glacial erosion (tick) Movement
	of material on the sides of the glacier (tick) Deposition of
	Materials as ice melts (dispenses)
4c AO2	A reasonable assessment of the effects of deforestation and
	farming on the water and carbon cycles of a tropical rainforest,
	although this has not been done as effectively as the description
	of the effects L2 4 marks
2d AO1	All annotations can be made on 1d AO1 page PLC - used to
	show place specific content Demonstrates comprehensive
	knowledge and understanding with detailed PLC Knows about
	the climatic conditions which allowed the growth and retreat of
	the ice sheet – which led to the erosion of the landscape Knows
	about the process of isostatic uplift Knows about the geology of
	the PLC including differential resistance and hence erosion L 3 8
	marks
2d AO2	Comprehensive application of knowledge and understanding
	shown: Thickness of the ice allowed for erosion of the landscape
	Ice sheet retreat uncovers the landscape leaving behind
	ellipsoidal lakes filled initially with meltwater Climate has less
	effect on the landscape now, with less erosion and deposition
	Understanding that the resistant geology of the PLC will mean
	that erosion is not very pronounced Discusses the landforms
	created due to the geology of the PLC such as Crag and Tail
	features and Knock and Lochan topography Discusses the
	relative importance of the different physical factors that have affected the are L3 8 marks
4b	
40	As AO1 and AO2 are marked as a single level SEEN can be used rather than having to identify AO1 and AO2 separately
	Demonstrates a comprehensive knowledge and understanding of
	how feedback loops affect the carbon cycle Applies this
	knowledge to fully explain how feedback loops affect the
	processes and stores within the cycle Gives a balanced view of
	both positive and negative cycles L3 10 marks
2a	L3 8 marks A thorough response with well-developed ideas and a
_ u	clear appreciation of the different components of a glacier system
	Including a knowledge of: the different types of system The inputs
	into a glacial system Mass balance and equilibrium Movement
	and erosion throughout the system, and the differences caused
	by the temperature of the glacier Glacial outputs The candidate
	also gives correct PLC - but this is not a requirement of the mark
	scheme - but is a reflection of the thoroughness of the answer
4aii	(Tick) difficulty reading the scale
2bii	1 mark given for correct formula only
4ai	(tick) more total precipitation leads to more run off in the South
+al	(uok) more total precipitation leads to more full oil in the South

Item Name	Comment
	East (DEV) Heavy rainfall saturates the soil (DEV) Water cannot
	percolate