

GCE

Geography

Unit H081/01: Landscape and place

Advanced Subsidiary GCE

Mark Scheme for June 2017

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

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Annotations

Annotation	Meaning
SEEN	Point has been seen and noted.
?	Indicates a whole answer for which there is no credit.
BP	Must be used on all blank pages where there is no candidate response.
DEV	Development of a point.
IRRL	Irrelevant; a significant amount of material that does not answer the question.
LI	Level 1
L2	Level 2
13	Level 3
L4	Level 4
NE	No place specific detail.
R	Rubric error (place at start of Question not being counted)
200	Highlighting an issue e.g. irrelevant paragraph. Use in conjunction with another stamp e.g.

Subject-specific Marking Instructions

INTRODUCTION

Your first task as an Examiner is to become thoroughly familiar with the material on which the examination depends. This material includes:

- the specification, especially the assessment objectives
- the question paper and its rubrics
- the mark scheme.

You should ensure that you have copies of these materials.

You should ensure also that you are familiar with the administrative procedures related to the marking process. These are set out in the OCR booklet **Instructions for Examiners**. If you are examining for the first time, please read carefully **Appendix 5 Introduction to Script Marking:**Notes for New Examiners.

Please ask for help or guidance whenever you need it. Your first point of contact is your Team Leader.

USING THE MARK SCHEME

Please study this Mark Scheme carefully. The Mark Scheme is an integral part of the process that begins with the setting of the question paper and ends with the awarding of grades. Question papers and Mark Schemes are developed in association with each other so that issues of differentiation and positive achievement can be addressed from the very start.

This Mark Scheme is a working document; it is not exhaustive; it does not provide 'correct' answers. The Mark Scheme can only provide 'best guesses' about how the question will work out, and it is subject to revision after we have looked at a wide range of scripts.

The Examiners' Standardisation Meeting will ensure that the Mark Scheme covers the range of candidates' responses to the questions, and that all Examiners understand and apply the Mark Scheme in the same way. The Mark Scheme will be discussed and amended at the meeting, and administrative procedures will be confirmed. Co-ordination scripts will be issued at the meeting to exemplify aspects of candidates' responses and achievements; the co-ordination scripts then become part of this Mark Scheme.

Before the Standardisation Meeting, you should read and mark in pencil a number of scripts, in order to gain an impression of the range of responses and achievement that may be expected.

In your marking, you will encounter valid responses which are not covered by the Mark Scheme: these responses must be credited. You will encounter answers which fall outside the 'target range' of Bands for the paper which you are marking. Please mark these answers according to the marking criteria.

Please read carefully all the scripts in your allocation and make every effort to look positively for achievement throughout the ability range. Always be prepared to use the full range of marks.

LEVELS OF RESPONSE QUESTIONS:

The indicative content indicates the expected parameters for candidates' answers, but be prepared to recognise and credit unexpected approaches where they show relevance.

Using 'best–fit', decide first which set of level descriptors best describes the overall quality of the answer. Once the level is located, adjust the mark concentrating on features of the answer which make it stronger or weaker following the guidelines for refinement.

Highest mark: If clear evidence of all the qualities in the level descriptors is shown, the HIGHEST Mark should be awarded.

Lowest mark: If the answer shows the candidate to be borderline (i.e. they have achieved all the qualities of the levels below and show limited evidence of meeting the criteria of the level in question) the LOWEST mark should be awarded.

Middle mark: This mark should be used for candidates who are secure in the level. They are not 'borderline' but they have only achieved some of the qualities in the level descriptors.

Be prepared to use the full range of marks. Do not reserve (e.g.) highest level marks 'in case' something turns up of a quality you have not yet seen. If an answer gives clear evidence of the qualities described in the level descriptors, reward appropriately.

Quality of extended response will be assessed in questions marked with an (*). Quality of extended response is not attributed to any single assessment objective but instead is assessed against the entire response for the question.

	AO1	AO2	AO3	Quality of extended response
Comprehensive	A wide range of detailed and accurate knowledge that demonstrates fully developed understanding that shows full relevance to the demands of the question. Precision in the use of question terminology.	Knowledge and understanding shown is consistently applied to the context of the question, in order to form a: clear, developed and convincing analysis that is fully accurate. clear, developed and convincing interpretation that is fully accurate. detailed and substantiated evaluation that offers secure judgements leading to rational conclusions that are evidence based.	Quantitative, qualitative and/or fieldwork skills are used in a consistently appropriate and effective way and with a high degree of competence and precision.	There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.
Thorough	A range of detailed and accurate knowledge that demonstrates well developed understanding that is relevant to the demands of the question. Generally precise in the use of question terminology.	Knowledge and understanding shown is mainly applied to the context of the question, in order to form a: clear and developed analysis that shows accuracy. clear and developed interpretation that shows accuracy. detailed evaluation that offers generally secure judgements, with some link between rational	Quantitative, qualitative and/or fieldwork skills are used in a suitable way and with a good level of competence and precision.	There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.

		conclusions and evidence.		
Reasonable	Some sound knowledge that demonstrates partially developed understanding that is relevant to the demands of the question. Awareness of the meaning of the terms in the question.	Knowledge and understanding shown is partially applied to the context of the question, in order to form a: sound analysis that shows some accuracy. sound interpretation that shows some accuracy. sound evaluation that offers generalised judgements and conclusions, with limited use of evidence.	Quantitative, qualitative and/or fieldwork skills are used in a mostly suitable way with a sound level of competence but may lack precision.	The information has some relevance and is presented with limited structure. The information is supported by limited evidence.
Basic	Limited knowledge that is relevant to the topic or question with little or no development. Confusion and inability to deconstruct terminology as used in the question.	Knowledge and understanding shows limited application to the context of the question in order to form a: simple analysis that shows limited accuracy. simple interpretation that shows limited accuracy. Un-supported evaluation that offers simple conclusions.	Quantitative, qualitative and/or fieldwork skills are used inappropriately with limited competence and precision.	The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.

(uesti	on	Answer	Marks	Guidance
1	(a)	(i)	Using evidence from Fig. 1, describe the annual pattern of	3	AO3 – 3 marks
-	()	(-)	wind speed and wind direction.		Both wind speed <u>and</u> direction are required for maximum marks.
			Wind speed remains fairly constant (\checkmark); there are fluctuations throughout the year (\checkmark) Wind direction is predominantly westerly (\checkmark); direction fluctuates throughout the year (\checkmark) Range from 5.1 – 9.1 mph / relatively narrow range (\checkmark) Anomalies in wind direction of ENE and NNE in March and		Explanation is not credited. 3 x 1 (✓) for each valid point
			May respectively (\checkmark) Wind speeds are higher in December and January (\checkmark); there is an anomaly in June (\checkmark)		
	(a)	(ii)	Suggest how one geomorphic process is influenced by wind	4	AO2 – 4 marks
			speed and wind direction.		4 x 1 (✓) for each valid point related to the influence of wind speed and direction on the named geomorphic process.
			There are many processes which could be given here, including:		At least one point on wind speed and one on direction.
			weathering, mass movement,		If more than one process is named, credit the first only.
			wave, fluvial and aeolian erosion, transportation and deposition.		
	(b)		Explain the formation of geos.	8	AO1 – 8 marks
			Level 3 (6–8 marks) Demonstrates thorough knowledge and understanding of how a geo is formed (AO1). This will be shown by including well-developed ideas about the formation of a geo. Level 2 (3–5 marks)		Indicative content Knowledge and understanding of the formation of geos could potentially include: • lines of weakness are more susceptible to erosion

stion Answer	Marks	Guidance
Demonstrates reasonable knowledge and understanding of how a geo is formed (AO1). This will be shown by including developed ideas about the formation of a geo. Level 1 (1–2 marks) Demonstrates basic knowledge and understanding of how a geo is formed (AO1). This will be shown by including simple ideas about the formation of a geo. O marks No response worthy of credit.	Walks	 Hydraulic action is particularly important in weakening the rock Abrasion also relevant process Erosion occurs faster than the surrounding rock Can sometimes start as a tunnel-like caves A partial roof collapse can form a blowhole Total roof collapse forms a geo May be associated with mining shafts
		Explanation may be helped by a labelled and/or annotated diagram(s), or place study knowledge and understanding, but there is no requirement for this.
"Climate change is the most important factor in the modification of landforms within coastal landscape systems". To what extent do you agree with this statement? AO1 Level 3 (6–8 marks) Demonstrates thorough knowledge and understanding of the modification of coastal landscape systems as a result of climate change and other factors.	14 AO1 x8 AO2 x6	 Indicative content AO1 – 8 marks Knowledge and understanding of the modification of coastal landscape systems as a result of climate change and other factors, such as human activity, could potentially include: Increase in sea level as a result of melting ice caps would increase the rate and location of erosion. Sea level rise would lead to increased erosion in fjords and rias. Climate change could lead to change in wind patterns, affecting
modifica climate d	tion of coastal landscape systems as a result of	tion of coastal landscape systems as a result of change and other factors.

Question	Answer	Marks	Guidance
	Amount of place-specific detail determines credit within the level.		the prevailing winds and the propensity for storms.
	level.		Temperature changes would impact on weathering, such as
	Level 2 (3–5 marks) Demonstrates reasonable knowledge and understanding of the modification of coastal landscape systems as a result of		freeze-thaw, which could change the volume of debris created, and in turn the rate of erosion through abrasion. • human activities causing changes within coastal landscape
	climate change and other factors. The answer may include some place-specific detail which is partially accurate. Amount of place-specific detail determines		systems e.g. coastal management (groyne construction) and / or off-shore dredging (for sands and gravels), tourist resort development, building ports and / or power stations
	credit within the level.		 port development or tourist resort development reducing input of sediment from coastal erosion along developed coastlines
	Level 1 (1–2 marks) Demonstrates basic knowledge and understanding of the modification of coastal landscape systems as a result of climate change and other factors.		 breakwaters/harbour wall construction can reduce wave energy and obstruct longshore sediment movements off-shore dredging to obtain gravel for the construction industry
	There may be an attempt to include place-specific detail but it is inaccurate .		 can lead to sediment imbalance off-shore groyne installation can trap material being moved by longshore drift increasing beach width and depth but, also causes sediment
	0 marks No response worthy of credit.		starvation downdrift leading to increased erosion rates
	AO2 Level 3 (5–6 marks)		 credit any relevant activities and/or changes caused by human activity in coastal landscape systems.
	Application of knowledge and understanding is thorough . Analysis is clear, developed and convincing. Evaluation of the importance of climate change in the modification of landforms within coastal landscape systems is detailed and		
	substantiated. Judgements are secure and evidence based		

Question	Answer	Marks	Guidance
Question	leading to rational conclusions. Level 2 (3–4 marks) Application of knowledge and understanding is reasonable. Analysis is sound with some development that is mostly relevant. Evaluation of the importance of climate change in the modification of landforms within coastal landscape systems is sound but partial. Judgements are generalised with some use of evidence leading to appropriate conclusions. Level 1 (1–2 marks) Application of knowledge and understanding is basic. Analysis is simple with little or no development. Evaluation of the importance of climate change in the modification of landforms within coastal landscape systems is weak or absent. Judgements, if present, are unsupported leading to simple conclusions.	Marks	 AO2 – 6 marks Apply knowledge and understanding to analyse and evaluate the extent to which climate change could be the biggest factor in the modification of landforms within coastal landscape systems could potentially include: Human influence of the modification of landforms within the coastal landscape system are relatively new in the geological timeframe. Consideration of the "extent" could include scale, significance and/or range of the changes, as well as the time scale on which these modifications take place. However the extent of changes
	0 marks No response worthy of credit.		within the coastal landscape system would be variable over time as these are dynamic environments
	Quality of extended response Level 3 There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Level 2 There is a line of reasoning with some structure. The information presented is mostly relevant and substantiated. Level 1 There is little or no line of reasoning without structure. The		 Discussion could touch on man-made climate change as opposed to natural climate change as seen in the past. When disturbed, coastal landscape systems, with its inputs, processes and outputs can lose its equilibrium where inputs and outputs become imbalanced and resultant positive or negative feedback can amplify the drivers of modification. Recognition that both climate change and other factors cause changes (at a range of scales) within the coastal landscape

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Question	Answer	Marks	Guidance
	information presented has little or no relevance and is superficial.		systems as they disturb the system inputs (sediment), processes (rates) and outputs (landforms) .
			 Coastal landscape systems are dynamic and constantly changing naturally, human activities can exacerbate processes and enhance changes but the system has the potential to recover depending on the location, scale and type of activity so modifications may not be long-lasting.
			The significance of the changes to the landscape system as a whole.
			There should be some discussion of other factors that can impact on the system.

(Question		Answer	Marks	Guidance
2	(a)	(i)	Using evidence from Fig. 2, describe the annual pattern of	3	AO3 – 3 marks
			temperature and snowfall.		Both temperature <u>and</u> snowfall are required for maximum marks.
			Mean temperature October – April is below 0°C (✓) Minimum temperature range is -7.9°C – 9.2°C (✓) Snow falls November – April / no snowfall May – October (✓) October is the only month with a mean minimum temperature below 0°C and no snowfall (✓) When temperature is lowest, snowfall is highest (✓)		Explanation is not credited. 3 x 1 (✓) for each valid point
	(a)	(ii)	Suggest how one geomorphic process is influenced by	4	AO2 – 4 marks

Question	Answer	Marks	Guidance
	temperature and snowfall.		4 x 1 (✓) for each valid point related to the influence of temperature and snowfall on the named geomorphic process.
	There are many processes which could be given here, including:		At least one point on temperature and one on snowfall.
	weathering, mass movement, nivation,		If more than one process is named, credit the first.
(b)	glacial erosion, transportation and deposition. Explain the formation of roche moutonnée.	8	AO1 – 8 marks
	Level 3 (6–8 marks) Demonstrates thorough knowledge and understanding of how a roche moutonné is formed (AO1). This will be shown by including well-developed ideas about the formation of a roche moutonné. Level 2 (3–5 marks) Demonstrates reasonable knowledge and understanding of how a roche moutonné is formed (AO1). This will be shown by including developed ideas about the formation of a roche moutonné.		 Indicative content Knowledge and understanding of the formation of roche moutonnée could potentially include: Formed of more resistant rock that the surrounding geology. Weaker rock around has been eroded by the ice as it moved downhill. Has a smooth stoss slope facing uphill as a result of abrasion pressure melting point
	Level 1 (1–2 marks) Demonstrates basic knowledge and understanding of how a roche moutonné is formed (AO1). This will be shown by including simple ideas about the formation of a roche moutonné. O marks No response worthy of credit.		 Evidence of striations on the stoss slope. Lee side facing downhill is jagged. Evidence of plucking on the lee slope as meltwater re-freezes.
	The response worthy of create.		Explanation may be helped by a labelled and/or annotated

Question	Answer	Marks	Guidance
			diagram(s) or place study knowledge and understanding, but there is no requirement for this.
(c)*	"Climate change is the most important factor in the modification of landforms within glaciated landscape systems". To what extent do you agree with this statement?	14 AO1 x8 AO2 x6	Indicative content AO1 – 8 marks Knowledge and understanding of the modification of glaciated landscape systems as a result of climate change and other factors could potentially include:
	Level 3 (6–8 marks) Demonstrates thorough knowledge and understanding of the modification of glaciated landscape systems as a result of climate change and other factors. The answer should include accurate place-specific detail. Amount of place-specific detail determines credit within the level. Level 2 (3–5 marks) Demonstrates reasonable knowledge and understanding of the modification of glaciated landscape systems as a result of climate change and other factors. The answer may include some place-specific detail which is partially accurate. Amount of place-specific detail determines		 Reduction in temperature and re-advance of glaciers would lead to a striking modification of the current landscape. However, climate change is more likely to be warming in the majority of places, so this is unlikely. Areas with remaining ice would see an increase in glacio-fluvial erosion and deposition should ice melt, resulting in an greater expanse of outwash material Periglacial landforms are likely to see change if temperature fluctuations do not go through the freeze-thaw point; reducing the spread of patterned ground, for example. Pingos are likely to become ognips. Landscapes can also be modified by humans, such as the development of dams in glacial valleys, which can impact on the sediment flow and discharge, adversely affecting the erosional
	credit within the level. Level 1 (1–2 marks)		 Urban heat islands are created by humans in settlements in the periglacial environments which can exacerbate the movement of

Question	Answer	Marks	Guidance
	Demonstrates basic knowledge and understanding of the modification of glaciated landscape systems as a result of climate change and other factors. There may be an attempt to include place-specific detail but it is inaccurate .		the active layer.
	0 marks No response worthy of credit.		
	Level 3 (5–6 marks) Application of knowledge and understanding is thorough. Analysis is clear, developed and convincing. Evaluation of the importance of climate change in the modification of landforms within glaciated landscape systems is detailed and substantiated. Judgements are secure and evidence based leading to rational conclusions. Level 2 (3–4 marks) Application of knowledge and understanding is reasonable. Analysis is sound with some development that is mostly relevant. Evaluation of the importance of climate change in the modification of landforms within glaciated landscape systems is sound but partial. Judgements are generalised with some use of evidence leading to appropriate conclusions. Level 1 (1–2 marks)		 AO2 – 6 marks Apply knowledge and understanding to analyse and evaluate the extent to which climate change could be the biggest factor in the modification of landforms within glaciated landscape systems could potentially include: Human influence of the modification of landforms within the glaciated landscape system are relatively new in the geological timeframe. Consideration of the "extent" could include scale, significance and/or range of the changes, as well as the time scale on which
	Application of knowledge and understanding is basic . Analysis is simple with little or no development. Evaluation of the importance of climate change in the modification of		these modifications take place. However the extent of changes within the glaciated landscape system would be variable over

Question Answer	Marks	Guidance
landforms within glaciated landscape systems is weak or absent. Judgements, if present, are unsupported leading to simple conclusions. O marks No response worthy of credit. Quality of extended response Level 3 There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Level 2 There is a line of reasoning with some structure. The information presented is mostly relevant and substantiated. Level 1 There is little or no line of reasoning without structure. The information presented has little or no relevance and is superficial.		 time as these are dynamic environments Discussion could touch on man-made climate change as opposed to natural climate change as seen in the past. When disturbed, glaciated landscape systems, with its inputs, processes and outputs can lose its equilibrium where inputs and outputs become imbalanced and resultant positive or negative feedback can amplify the drivers of modification. Recognition that both climate change and other factors cause changes (at a range of scales) within the glaciated landscape systems as they disturb the system inputs (sediment), processes (rates) and outputs (landforms) . The significance of the changes to the landscape system as a whole. There should be some discussion of other factors that can impact on the system such as human factors.

	Quest	ion	Answer	Marks	Guidance
3	(a)	(i)	Using evidence from Fig. 3, describe the annual pattern of	3	AO3 – 3 marks
			temperature and precipitation.		Both temperature <u>and</u> precipitation are required for maximum marks.

Question	Answer	Marks	Guidance
	Temperature ranges from 13.5°C − 35.8°C (✓) Hottest temperatures are in the summer (June − September) (✓) Precipitation ranges from 1mm − 39mm (✓) General trend for lower precipitation when higher temperatures (✓) Lower rainfall in the summer months (✓)		Explanation is not credited. 3 x 1 (✓) for each valid point
(a) (ii)	Suggest how one geomorphic process is influenced by temperature and precipitation. There are many processes which could be given here, including: weathering, mass movement, fluvial and aeolian erosion, transportation and deposition.	4	AO2 – 4 marks 4 x 1 (✓) for each valid point related to the influence of temperature and precipitation on the named geomorphic process. At least one point on temperature and one on precipitation. If more than one process is named, credit the first.
(b)	Explain the formation of wadis. Level 3 (6–8 marks) Demonstrates thorough knowledge and understanding of how a wadi is formed (AO1). This will be shown by including well-developed ideas about the formation of a wadi.	8	An example could include: Higher temperatures lead to greater aeolian erosion (✓) due to the increased evaporation (✓) and so particles are less cohesive (✓). The lack of rainfall in the summer also helps makes the particles easier to move (✓). AO1 – 8 marks Indicative content Knowledge and understanding of the formation of wadis could potentially include:
	Level 2 (3–5 marks)		Streams and rivers which are dry for most of the year.

Question	Answer	Marks	Guidance
	Demonstrates reasonable knowledge and understanding of how a wadi is formed (AO1). This will be shown by including developed ideas about the formation of a wadi.		 Formed quickly during intense periods of rain. Erosion is rapid due to the high peak flow.
	Level 1 (1–2 marks) Demonstrates basic knowledge and understanding of how a wadi is formed (AO1). This will be shown by including simple ideas about the formation of a wadi. O marks No response worthy of credit.		 Available store of potential load is also a factor in abrasion process. Ground cannot store water as it is baked solid and there is little vegetation cover. Erosion tends to be vertical leaving narrow yet deep gullies.
			Explanation may be helped by a labelled and/or annotated diagram(s) or place study knowledge and understanding, but there is no requirement for this.
(c)*	"Climate change is the most important factor in the	14	Indicative content
	modification of landforms within dryland landscape	AO1 x8	AO1 – 8 marks
	systems". To what extent do you agree with this statement?	AO2 x6	Knowledge and understanding of the modification of dryland
	AO1 Level 3 (6–8 marks)		landscape systems as a result of climate change and other factors could potentially include:
	Demonstrates thorough knowledge and understanding of the modification of dryland landscape systems as a result of climate change and other factors.		Climate change, leading to increased rain fall, could return a dryland landscape to a climate last seen in a previous pluvial. This would see an intensification of weathering and mass movement
	The answer should include accurate place-specific detail. Amount of place-specific detail determines credit within the level.		 Many of the features of a dryland landscape were formed by periglacial conditions (such as the Hoggar Plateau in Algeria) and are being modified by the weathering processes of the dryland environment, hence they are already being modified by climate

Question	Answer	Marks	Guidance
	Level 2 (3–5 marks) Demonstrates reasonable knowledge and understanding of the modification of dryland landscape systems as a result of climate change and other factors.		 Change. With warmer temperatures, and therefore drier conditions, a landscape will become more influenced by aeolian activity.
	The answer may include some place-specific detail which is partially accurate . Amount of place-specific detail determines credit within the level.		 Humans can impact on drylands by further compromising water sources through over-abstraction or by damming rivers to create reservoirs, increasing pressure on water further downstream. Tourism, such as quad-biking on sand dunes, can damage the
	Level 1 (1–2 marks) Demonstrates basic knowledge and understanding of the modification of dryland landscape systems as a result of climate change and other factors.		plants which form anchors for the sand dunes, increasing their rate of movement.
	There may be an attempt to include place-specific detail but it is inaccurate .		
	O marks No response worthy of credit. AO2 Level 3 (5–6 marks) Application of knowledge and understanding is thorough. Analysis is clear, developed and convincing. Evaluation of the importance of climate change in the modification of landforms within dryland landscape systems is detailed and substantiated. Judgements are secure and evidence based leading to rational conclusions. Level 2 (3–4 marks)		AO2 – 6 marks Apply knowledge and understanding to analyse and evaluate the extent to which climate change could be the biggest factor in the modification of landforms within dryland landscape systems could potentially include: • Human influence of the modification of landforms within the

Question	Answer	Marks	Guidance
	Application of knowledge and understanding is reasonable. Analysis is sound with some development that is mostly relevant. Evaluation of the importance of climate change in the modification of landforms within dryland landscape systems is sound but partial. Judgements are generalised with some use of evidence leading to appropriate conclusions. Level 1 (1–2 marks) Application of knowledge and understanding is basic. Analysis is simple with little or no development. Evaluation of the importance of climate change in the modification of landforms within dryland landscape systems is weak or absent. Judgements, if present, are unsupported leading to simple conclusions. O marks No response worthy of credit.		 dryland landscape system are relatively new in the geological timeframe. Consideration of the "extent" could include scale, significance and/or range of the changes, as well as the time scale on which these modifications take place. However the extent of changes within the dryland landscape system would be variable over time as these are dynamic environments Discussion could touch on man-made climate change as opposed to natural climate change as seen in the past. When disturbed, dryland landscape systems, with its inputs, processes and outputs can lose its equilibrium where inputs and outputs become imbalanced and resultant positive or negative feedback can amplify the drivers of modification.
	Quality of extended response Level 3 There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Level 2 There is a line of reasoning with some structure. The information presented is mostly relevant and substantiated. Level 1 There is little or no line of reasoning without structure. The information presented has little or no relevance and is superficial.		 Recognition that both climate change and other factors cause changes (at a range of scales) within the dryland landscape systems as they disturb the system inputs (sediment), processes (rates) and outputs (landforms). Dryland landscape systems are dynamic and constantly changing naturally, human activities can exacerbate processes and enhance changes but the system has the potential to recover depending on the location, scale and type of activity so modifications may not be long-lasting. The significance of the changes to the landscape system as a whole.

Question	Answer	Marks	Guidance
			There should be some discussion of other factors that can impact on the system.

(Question		Answer	Marks	Guidance
4	(a)		Explain how two demographic characteristics might contribute to the identity of a place at local scale. Explanation could be linked to possible demographic characteristics such as:	4 AO1 x4	AO1 – 4 marks 2 x 1 (✓) for each point that identifies a demographic characteristic 2 x 1 (DEV) for each explanation of how it can be linked to the identity of a place at local scale.
			 total population size (✓) the scale of the built environment, service provision, or traffic for example may be directly related to numbers of resident population in a settlement such as a village or a small market town (DEV) 		Exemplification is not essential but it may be creditworthy where it demonstrates knowledge and understanding of the link between a demographic characteristic and place identity at the local scale.
			 population density (✓) contrasts in the urban environment between inner city areas and outer suburbs for example can be linked to differences in population densities such as population per hectare, numbers per 		

Question	Answer	Marks	Guidance
	household / overcrowding(DEV)		
	• age structure / age (✓) contrasts between remote rural		
	settlements with an ageing population and newly		
	expanded rural settlements dominated by relatively		
	young commuter working populations for example might		
	contribute to differing place identities (DEV)		
	 gender balance (✓) this might influence place identity in 		
	for example Qatar's 'labour camps' with male majorities		
	in the migrant workforce, or UK settlements with a high		
	proportion of retired elderly women such as Bexhill (DEV)		
	 natural change (✓) the planning response in local urban 		
	areas where birth rates are relatively high might include		
	low-cost accommodation, play facilities, primary schools		
	- contrasting with type of housing/services developed for		
	over-55s perhaps in regenerated dockland areas (DEV)		
	 migration (✓) place identity can change where there is 		
	net migration gain such as the cultural effects of East		
	European populations on towns such as Wisbech, Boston		
	or Peterborough (DEV)		
	• ethnic structure (✓) contrasts in ethnic composition of		
	Lympstone (relatively homogeneous) and Toxteth		
	(greater diversity) can be related to differences in their		
	place profiles / identity (DEV)		
	• sexuality (✓) neighbourhoods which have developed a		

C	uesti	on	Answer	Marks	Guidance
4	(b)	(ii)	With reference to Fig. 4 suggest how two players have	4	AO2 – 4 marks
			influenced recent economic change in Ashford.	AO2	2x1 (✓) for identification of players that have influenced economic
			 National government (✓) e.g. responsible for 	х4	change.
			motorway / rail construction. (DEV).		2x1 (DEV) for interpretation of the resource to indicate the different
					economic influence of each of the players.
			 Local government (✓) e.g. encouraged development of 		
			industrial estates 0040 and Outlet Shopping 0141		
			(DEV).		
			 Ashford town planners (✓) e.g. zoning of land use types 		
			(DEV).		
			 Market-led private investment (✓) e.g. investment / 		
			construction Outlet Shopping centre (DEV)		
			 Local community groups (✓) e.g. protection of green 		
			areas which limits economic growth (DEV)		
			 TNCs (✓) e.g. investment in business parks / industrial 		
			estates / superstores (DEV)		
			Could potentially include other relevant players.		
			could potentially melade other relevant players.		
4	(c)		Using evidence from Fig. 4b and Fig. 4c, explain two	6	Indicative content
			differences in the informal representations of Dunwich.	AO2 x4 AO3	AO2 – 4 marks
					Application of knowledge and understanding to analyse why there are
			Level 3 (5-6 marks)	x2	contrasts in informal representations of Dunwich could potentially
			Demonstrates thorough application of knowledge and	\ <u>^</u>	include:
			understanding to provide a clear and developed analysis that		 The main aim of the painting is purely artwork, a pictorial
			shows accuracy to explain differences in informal		representation of place, whereas the tourist guide attempts

Question	Answer	Marks	Guidance
	representations of Dunwich (AO2).		to provide information to attract visitors.
	Demonstrates reasonable investigation and interpretation of the resource to fully evidence why there are differences in the two informal representations of Dunwich. There must be sound ideas linking resource evidence to differences in the		 The artist's interpretation concentrates on the physical landscape whereas the tourist guide is more concerned with human features such as amenities, facilities and activities to attract tourists.
	informal representations (AO3). Level 2 (3-4 marks) Demonstrates reasonable application of knowledge and understanding to provide sound analysis that shows some		 The artwork provides an instant visual impression of this untouched natural coastline (apart from Sizewell in the distance) whereas the tourist guide is written prose which is limited in conveying the natural beauty of the landscape.
	accuracy to explain differences in informal representations of Dunwich (AO2).		 The main focus of the painting is on one view / aspect of part of Dunwich – the coast, whereas the tourist guide attempts to mention all features which cannot otherwise be seen - coastal
	Demonstrates basic investigation and interpretation of the resource to evidence the differences in informal		features, services / amenities, walking activities and the history.
	representations of Dunwich. There must be limited ideas linking resource evidence to differences in the informal representations (AO3).		The artwork is the interpretation of the landscape, selected and drawn by one person whereas the tourist guide is the collective work of the Suffolk Tourist Board.
	Level 1 (1-2 marks) Demonstrates basic application of knowledge and understanding to provide simple analysis that shows limited accuracy to explain differences in informal representations of		 Dark, bleak landscape painting contrast with tourist guide designed to attract
	Dunwich (AO2).		AO3 – 2 marks Evidence from investigation and interpretation of the resource could
	Demonstrates basic investigation and interpretation of the resource to provide limited evidence of the differences in informal representations of Dunwich. There are limited ideas		potentially include:

Question	Answer	Marks	Guidance
Question	about differences in informal representations with limited or no link to resource evidence (AO3). O marks No response or no response worthy of credit.	Warks	In the painting, • features of the physical landscape and seascape such as the relief, cliff, beach, bay and waves. • the relatively undeveloped natural environment of this AONB • the small number of visitors. In the tourist guide, • services, amenities, tourist attractions, and facilities referred to including features such as the car park, the local pub, the museum, potential walks. • a brief history of the area is provided. • there is reference to features of the wider area in the AONB by ref to other places such as RSPB Minsmere, Walberswick, and Dunwich Heath. Max 2 marks (AO3) for basic identification of information from the resources only.
4 (d)*	To what extent are patterns of social inequality the result of economic factors? AO1 Level 3 (6–8 marks) Demonstrates thorough knowledge and understanding of economic and other factors that have an impact on patterns of social inequality.	14 AO1 x8 AO2 x6	Indicative content AO1 – 8 marks Knowledge and understanding of the importance of different factors that have an impact on patterns of social inequality with economic factors a focus. Economic factors: • Government spending or cuts in key services; these services

Question	Answer	Marks	Guidance
Question	The answer should include accurate place-specific detail. Amount of place-specific detail determines credit within the level.	Marks	could potentially include: o housing, including sanitation health care, including medical facilities, medicines,
	Level 2 (3–5 marks) Demonstrates reasonable knowledge and understanding of economic and other factors that have an impact on patterns of social inequality.		trained medical practitioners o education – primary, secondary, tertiary
	The answer may include some place-specific detail which is partially accurate . Amount of place-specific detail determines credit within the level.		 infrastructure, including energy supply, communications, transport community services, including clean water supply
	Level 1 (1–2 marks) Demonstrates basic knowledge and understanding of economic and other factors that have an impact on patterns of social inequality. There may be an attempt to include place-specific detail but it is inaccurate. O marks No response or no response worthy of credit.		 Structural economic change, which may affect social opportunities Cyclical economic change (booms and recessions) which affects patterns of social inequality over time Private investment in key services such as Gavi, the Vaccine Alliance in developing countries Household income / poverty Other factors could potentially include: Social factors: such as gender; age; ethnicity; rate of population growth / change; the role of NGOs; lifestyle choices
			Political factors: such as government planning policy in key services; the impact of conflict

Question	Answer	Marks	Guidance
			Environmental factors:
			such as impacts on health e.g. air pollution, water quality, drought,
			food quality.
			Different scales could be applicable in demonstrating the impacts of
			various factors on patterns of social inequality such as:
			Global: for example contrasts in quality of housing between
			settlements in LIDCs and ACs such as Jembatan Besi a slum in
			Jakarta and the wealthy suburb of Northwood, Irvine, California.
			National: such as variation in spending on education between
	AO2 Level 3 (5–6 marks)		UK regions e.g. contrast South East and North East or London and Wales.
	Demonstrates thorough application of knowledge and		
	understanding to provide clear and developed analysis that		Intra-urban: such as differences in investment in access to
	shows accuracy to provide a detailed evaluation that offers		health care between inner city areas and outer suburbs.
	generally secure judgements, with some link between rational conclusions and evidence, of the relative importance of		Urban/rural: for example differences in investment in
	economic and other factors that have an impact on patterns		infrastructure in the Birmingham Development Plan and Rural
	of social inequality.		Development Areas of Suffolk.
	Level 2 (3–4 marks)		AO2 – 6 marks
	Demonstrates reasonable application of knowledge and		Application of knowledge and understanding to analyse and evaluate
	understanding to provide sound analysis that shows some		the relative importance of economic and other factors on patterns of
	accuracy to provide a sound evaluation that offers		social inequality <u>could potentially include</u> :
	generalised judgements and conclusions, with limited use of		• the impact and
	evidence, of the relative importance of economic and other factors that have an impact on patterns of social inequality.		importance of economic factors on patterns of social
	ractors that have an impact on patterns of social inequality.		inequality, such as government spending or cuts in key
	Level 1 (1–2 marks)		services, structural economic change, cyclical economic
	, ,		services, structural economic change, cyclical economic

Question	Answer	Marks	Guidance
Question	Demonstrates basic application of knowledge and understanding to provide simple analysis that shows limited accuracy to provide an un-supported evaluation that offers simple conclusions of the relative importance of economic and other factors that have an impact on patterns of social inequality. O marks No response worthy of credit. Quality of extended response Level 3 There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Level 2 There is a line of reasoning with some structure. The information presented is mostly relevant and substantiated. Level 1 There is little or no line of reasoning without structure. The information presented has little or no relevance and is superficial.	Marks	Change, private investment. • the relative impact and importance of other factors (social, political, environmental) on patterns of social inequality. • consideration that all factors (economic, social, political and environmental) play a significant part in causing social inequality; they are interrelated and have an impact on patterns of social inequality in combination, with no one factor being more important than another. • recognition that patterns of social inequality and the factors that affect these patterns vary from place to place. • recognition that patterns of social inequality and the factors that affect these patterns vary from time to time and are of differing importance at various points in time. • recognition that patterns of social inequality and the factors that affect these patterns vary with scale.
			 differences in levels of government spending might actually reflect recognition of the social inequalities and attempts to reduce them.

Question		Answer	Marks	Guidance	
				government spending or cuts in key services may possibly reinforce or greate patterns of social inequality.	
				create patterns of social inequality.	

C	uest	ion	Answer	Marks	Guidance	
5	5 (a) (i)		State a geographical hypothesis that could be tested in the area shown. Justify using evidence from Fig. 5. There are a vast range of possible questions or issues that can be identified as possible in the area shown in the photograph.		AO3 – 4 marks 1 x 1 mark for a valid/appropriate hypothesis / question / issue.	
					3×1 (DEV) marks for justification with credit per point using evidence from the photograph or practical considerations	
			Investigations could include hypotheses / questions / issues which focus on the following:			
			 Physical – Sediment sorting analysis (✓), corrie orientation (✓), direction of glacier flow (✓). 			
			 Human – image of place (✓), land use patterns (✓), perceptions of place (✓), land value variations (✓). 			
		(ii)	· <i>'</i> ——		AO3 – 2 marks	
			the investigation in (a)(i).		2 x 1 marks for a resource that could be used to collect data in the	
					investigation proposed in 5(a)(i).	
			This will depend on the answer given in (a)(i). A wide			
			interpretation of 'resource' is possible so any reasonable		Examples could possibly include:	
			piece of equipment, people, time or secondary data source should be credited.		Calipers Compass	
			Should be created.		Questionnaires	
					Land use map	
					House price data	
					Photographs	
					Census	

Question	Answer	Marks	Guidance
(ii	Explain one way in which geographical data collected during the investigation could be presented and analysed with the use of a Geographic Information System (GIS). Level 3 (5–6 marks) Demonstrates a thorough understanding of the GIS method used to present and analyse data to investigate the geographical hypothesis suggested to explain its suitability and relevance. Level 2 (3–4 marks) Demonstrates a reasonable understanding of the method used to present and analyse data to investigate the geographical hypothesis suggested to explain its suitability and relevance. Level 1 (1–2 marks)	6	AO3 – 6 marks This is a question linked to the investigation stated in (a)(i) so it should be an appropriate GIS method for presentation and analysis of relevant data from the location. If a sound method is given but not relevant to the chosen investigation then max top of Level 1. An appropriate technique that lacks reference to GIS, max top of Level 2. If candidate describes more than one method credit the first. • Property prices collected in different locations in the study area could be plotted on a GIS base map using a colour scale. • Location of where questionnaires were answered could be geolocated and colour coded depending on whether the participant was a local or tourist.
	Demonstrates a basic understanding of the method used to present and analyse data to investigate the geographical hypothesis suggested to explain its suitability and relevance.		Orientation of corries plotted onto a base map.
	O marks No response worthy of credit		 Proportional circles, for example, identifying the average sediment size in different sampling areas along the valley floor would show if there was a trend in the size moving downstream.

Question	Answer	Marks	Guidance
(b)	With reference to a fieldwork investigation you have carried	12	AO3 – 12 marks
	out, evaluate how effective your chosen methodologies		
	were in collecting appropriate data.		An evaluation of the relative success of the methodologies used in
			investigation. Clear reference to the fieldwork investigation carried
	Level 4 (10–12 marks)		out by the candidate.
	Demonstrates a comprehensive evaluation as to the extent to		Answers may also include explanation of the relative level of success
	which the methodologies were successful in collecting		or otherwise such as:
	appropriate data relating directing to the fieldwork investigation carried out.		• sample size / variety.
	This will be shown by including well-developed ideas about		• repeating measurements at different times or for periods.
	the fieldwork investigation and how successful the		using reliable or effective equipment, this could be low-tech and
	methodology was.		digital methods to give variety and to cross check data.
	Level 3 (7–9 marks)		• finding further sources of data, could be secondary sources, to
	Demonstrates a thorough evaluation as to the extent to		triangulate results.
	which the methodologies were successful in collecting appropriate data relating directing to the fieldwork investigation carried out.		• sampling data / piloting questionnaires allowing for reflections and modifications to data collection techniques to ensure. quality and accuracy of 'data' collected.
	This will be shown:		willingness of people to participate in surveys and / or
	either by including well-developed ideas about the fieldwork		questionnaires, how these people were selected (sampling) and the
	investigation and developed ideas about how successful the		accuracy of their responses.
	methodology was;		• quality of data collected and variety of analytical tools used in the
	or by including well-developed ideas about how successful		field
	the methodology was and developed ideas about the fieldwork investigation.		ability to construct arguments and draw conclusions.

Question	Answer	Marks	Guidance
Question	Demonstrates a reasonable evaluation as to the extent to which the methodologies were successful in collecting appropriate data relating directing to the fieldwork investigation carried out. This will be shown: either by including developed ideas about the fieldwork investigation and simple ideas about how successful the methodology was; or by including developed ideas about how successful the methodology was and simple ideas about the fieldwork investigation. Level 1 (1–3 marks)	Marks	Guidance Comments about ways in which methodology could be improved may be valid.
	Demonstrates a basic evaluation as to the extent to which the methodologies were successful in collecting appropriate data relating directing to the fieldwork investigation carried out.		
	This will be shown by including simple ideas about the fieldwork investigation and how successful the methodology was.		
	0 marks		
	No response worthy of credit.		

Assessment Objectives (AO) grid

Candidates answer either question 1, 2 or 3 and questions 4 and 5. This has been considered in the totals indicated below.

Question	AO1	AO2	AO3	Marks
1ai			3	3
1aii		4		4
1b	8			8
1c	8	6		14
2ai			3	3
2aii		4		4
2b	8			8
2c	8	6		14
3ai			3	3
3aii		4		4
3b	8			8
3c	8	6		14
4a	4			4
4bi			1	1
4bii		4		4
4c		4	2	6
4d	8	6		14
5ai			4	
5aii			2	
5aiii			6	
5b			12	
Total	28	24	30	82

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