OCR
Oxford Cambridge and RSA

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.

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.
L1	Level 1
L2	Level 2
L3	Level 3
L4	Level 4
NE	No place specific detail.
R	Rubric error (place at start of Question not being counted)
	Highlighting an issue e.g. irrelevant paragraph. Use in conjunction with another stamp e.g. IRRL

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.

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

Question			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. **0 marks** No response worthy of credit.		• 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.
	(c)*		**"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. The answer should include **accurate place-specific** detail.	**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

Question			Answer	Marks	Guidance
			Amount of place-specific detail determines credit within the level. **Level 2 (3–5 marks)** Demonstrates **reasonable** knowledge and understanding of the modification of coastal 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 credit within the level. **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. There may be an attempt to include **place-specific** detail but it is **inaccurate**. **0 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 coastal landscape systems is detailed and substantiated. Judgements are secure and evidence based		the prevailing winds and the propensity for storms. • Temperature changes would impact on weathering, such as 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 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 • port development or tourist resort development reducing input of sediment from coastal erosion along developed coastlines • breakwaters/harbour wall construction can reduce wave energy and obstruct longshore sediment movements • off-shore dredging to obtain gravel for the construction industry 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 starvation downdrift leading to increased erosion rates • credit any relevant activities and/or changes caused by human activity in coastal landscape systems.

Question	Answer	Marks	Guidance
	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. **0 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		**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 within the coastal 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, 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

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 temperature and snowfall.** 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 (✓)	3	**AO3 – 3 marks** Both temperature and snowfall are required for maximum marks. 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. There are many processes which could be given here, including: weathering, mass movement, nivation, glacial erosion, transportation and deposition.		4 x 1 (✓) for each valid point related to the influence of temperature and snowfall on the named geomorphic process. At least one point on temperature and one on snowfall. If more than one process is named, credit the first.
	(b)		**Explain the formation of roche moutonnée.** **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. **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. **0 marks** No response worthy of credit.	**8**	**AO1 – 8 marks** **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 • Evidence of striations on the stoss slope. • Lee side facing downhill is jagged. • Evidence of plucking on the lee slope as meltwater re-freezes. 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?** **AO1** **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 credit within the level. **Level 1 (1–2 marks)**	**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: • 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 properties of the river at times. • Urban heat islands are created by humans in settlements in the periglacial environments which can exacerbate the movement of

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			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**. **0 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 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)** 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		the active layer. **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 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. **0 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.

Question			Answer	Marks	Guidance
3	**(a)**	**(i)**	**Using evidence from Fig. 3, describe the annual pattern of temperature and precipitation.**	**3**	**AO3 – 3 marks** 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. 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 (✓).
	(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. **Level 2 (3–5 marks)**	**8**	**AO1 – 8 marks** **Indicative content** Knowledge and understanding of the formation of wadis could potentially include: • 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. **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. **0 marks** No response worthy of credit.		• Formed quickly during intense periods of rain. • Erosion is rapid due to the high peak flow. • 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 modification of landforms within dryland 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 dryland 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.	**14** **AO1 x8** **AO2 x6**	**Indicative content** **AO1 – 8 marks** Knowledge and understanding of the modification of dryland landscape systems as a result of climate change and other factors could potentially include: • 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 • 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. The answer may include some **place-specific** detail which is **partially accurate**. Amount of place-specific detail determines credit within the level. **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. There may be an attempt to include **place-specific** detail but it is **inaccurate**. **0 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)**		change. • With warmer temperatures, and therefore drier conditions, a landscape will become more influenced by aeolian activity. • 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 plants which form anchors for the sand dunes, increasing their rate of movement. **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. **0 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.		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. • 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 <u>two</u> demographic characteristics might contribute to the identity of a place at local scale.** Explanation could be linked to possible demographic characteristics such as: • 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) • 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	**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. 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.

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		

Question			Answer	Marks	Guidance
			sense of place LGBT areas such as parts of Brighton (DEV)		
4	(b)	(i)	**Study Fig. 4, the OS map extract of central and southeast Ashford. Ashford is an historic market town in Kent which has experienced rapid urban growth and economic change in the last 20 years.** **Using evidence from Fig.4, identify and locate <u>one</u> land use that shows evidence of recent urban growth.** Examples of possible located urban land uses include: • housing estate expansion restricted by the physical barrier of the motorway M20 in grid square 0242 or 0341 (✓) • modern housing estates developed on available space in the urban fringe e.g. 0140 or 0341 (✓) • modern industrial estates with road access on outer edge of town e.g. 0040 (✓) • other extensive land uses on the urban fringe with access to the by-pass such as Retail Park 0041, (✓) or Ashford Market / Cattle Market 0240 (✓), Business Park at 0340 (✓), Outlet shopping at 0141 (✓) • Motel 029404 on ring road / by-pass (✓) • Transport land uses (✓) M20 motorway, cloverleaf junctions, ring roads e.g. A2070, International station	**1** **AO3** **x1**	**AO3 – 1 mark** 1 x 1 mark (✓) for a statement which identifies and locates an appropriate urban land use. Both type of land use and its location are needed for one mark. Explanation is not required. Accept location by grid reference, place name or accurate description using cardinal directions/distances.

Question			Answer	Marks	Guidance
4	(b)	(ii)	**With reference to Fig. 4 suggest how <u>two</u> players have influenced recent economic change in Ashford.** • National government (✓) e.g. responsible for motorway / rail construction. (DEV). • 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.	**4** **AO2** **x4**	**AO2 – 4 marks** 2x1 (✓) for identification of players that have influenced economic change. 2x1 (DEV) for interpretation of the resource to indicate the different economic influence of each of the players.
4	(c)		**Using evidence from Fig. 4b and Fig. 4c, explain <u>two</u> differences in the informal representations of Dunwich.** **Level 3 (5-6 marks)** Demonstrates **thorough** application of knowledge and understanding to provide a clear and developed analysis that shows accuracy to explain differences in informal	**6** **AO2** **x4** **AO3** **x2**	**Indicative content** **AO2 – 4 marks** Application of knowledge and understanding to analyse why there are contrasts in informal representations of Dunwich could potentially include: • The main aim of the painting is purely artwork, a pictorial representation of place, whereas the tourist guide attempts

Question	Answer	Marks	Guidance
	representations of Dunwich (AO2). 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 informal representations (AO3). **Level 2 (3-4 marks)** Demonstrates **reasonable** application of knowledge and understanding to provide sound analysis that shows some accuracy to explain differences in informal representations of Dunwich (AO2). Demonstrates **basic** investigation and interpretation of the resource to evidence the differences in informal representations of Dunwich. There must be limited ideas linking resource evidence to differences in the informal representations (AO3). **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 Dunwich (AO2). Demonstrates **basic** investigation and interpretation of the resource to provide limited evidence of the differences in informal representations of Dunwich. There are limited ideas		to provide information to attract visitors. • 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. • 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. • 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 features, services / amenities, walking activities and the history. • 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. • Dark, bleak landscape painting contrast with tourist guide designed to attract **AO3 – 2 marks** Evidence from investigation and interpretation of the resource could potentially include:

Question			Answer	Marks	Guidance
			about differences in informal representations with limited or no link to resource evidence (AO3). **0 marks** No response or no response worthy of credit.		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
			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 economic and other factors that have an impact on patterns of social inequality. The answer may include some **place-specific** detail which is **partially accurate**. Amount of place-specific detail determines credit within the level. **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**. **0 marks** No response or no response worthy of credit.		could potentially include: ○ housing, including sanitation ○ health care, including medical facilities, medicines, trained medical practitioners ○ education – primary, secondary, tertiary ○ infrastructure, including energy supply, communications, transport ○ community services, including clean water supply • 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 <u>could potentially include</u>: *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
	AO2 **Level 3 (5–6 marks)** Demonstrates **thorough** application of knowledge and understanding to provide clear and developed analysis that shows accuracy to provide a detailed evaluation that offers generally secure judgements, with some link between rational conclusions and evidence, of the relative importance of economic and other factors that have an impact on patterns of social inequality. **Level 2 (3–4 marks)** Demonstrates **reasonable** application of knowledge and understanding to provide sound analysis that shows some accuracy to provide a sound evaluation that offers generalised judgements and conclusions, with limited use of evidence, of the relative importance of economic and other factors that have an impact on patterns of social inequality. **Level 1 (1–2 marks)**		*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 UK regions e.g. contrast South East and North East or London and Wales. • Intra-urban: such as differences in investment in access to health care between inner city areas and outer suburbs. • Urban/rural: for example differences in investment in infrastructure in the Birmingham Development Plan and Rural Development Areas of Suffolk. **AO2 – 6 marks** Application of knowledge and understanding to analyse and evaluate the relative importance of economic and other factors on patterns of social inequality could potentially include: • the impact and importance of economic factors on patterns of social inequality, such as government spending or cuts in key services, structural economic change, cyclical economic

Question			Answer	Marks	Guidance
			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. **0 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.		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 create patterns of social inequality.

Question			Answer	Marks	Guidance
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. 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 (✓).	4	**AO3 – 4 marks** 1 x 1 mark for a valid/appropriate hypothesis / question / issue. 3 x 1 (DEV) marks for justification with credit per point using evidence from the photograph or practical considerations
		(ii)	**Outline <u>two</u> resources which could be used to collect data in the investigation in (a)(i).** This will depend on the answer given in (a)(i). A wide interpretation of 'resource' is possible so any reasonable piece of equipment, people, time or secondary data source should be credited.	2	**AO3 – 2 marks** 2 x 1 marks for a resource that could be used to collect data in the investigation proposed in 5(a)(i). Examples could possibly include: Calipers Compass Questionnaires Land use map House price data Photographs Census

Question			Answer	Marks	Guidance
		(iii)	**Explain <u>one</u> 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)** 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. 0 marks No response worthy of credit	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. • Orientation of corries plotted onto a base map. • 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 out, evaluate how effective your chosen methodologies were in collecting appropriate data.** **Level 4 (10–12 marks)** Demonstrates a **comprehensive** 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 well-developed ideas about the fieldwork investigation and how successful the methodology was. **Level 3 (7–9 marks)** Demonstrates a **thorough** 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 well-developed ideas about the fieldwork investigation and developed ideas about how successful the methodology was; **or** by including well-developed ideas about how successful the methodology was and developed ideas about the fieldwork investigation.	12	**AO3 – 12 marks** An evaluation of the relative success of the methodologies used in investigation. Clear reference to the fieldwork investigation carried out by the candidate. Answers may also include explanation of the relative level of success or otherwise such as: • sample size / variety. • repeating measurements at different times or for periods. • using reliable or effective equipment, this could be low-tech and digital methods to give variety and to cross check data. • finding further sources of data, could be secondary sources, to triangulate results. • sampling data / piloting questionnaires allowing for reflections and modifications to data collection techniques to ensure. quality and accuracy of 'data' collected. • willingness of people to participate in surveys and / or questionnaires, how these people were selected (sampling) and the accuracy of their responses. • quality of data collected and variety of analytical tools used in the field • ability to construct arguments and draw conclusions.

Question			Answer	Marks	Guidance
			Level 2 (4–6 marks) 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)** 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.		Comments about ways in which methodology could be improved may be valid.

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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