Component 1: Changing Landscapes and Changing Places

Mark Scheme

Guidance for Examiners

Positive marking

It should be remembered that learners are writing under examination conditions and credit should be given for what the learner writes, as opposed to adopting an approach of penalising him / her for any omissions. It should be possible for a very good response to achieve full marks and a very poor one to achieve zero marks. Marks should not be deducted for a less than perfect answer if it satisfies the criteria of the mark scheme.

The mark scheme for this component includes both point-based mark schemes and banded mark schemes.

Point-based mark schemes

For questions that are objective or points-based the mark scheme should be applied precisely. Marks should be awarded as indicated and no further subdivision should be made. Each creditworthy response should be in red ink. Annotations must reflect the mark awarded for the question. The targeted assessment objective (AO) is also indicated.

Banded mark schemes

For questions with mark bands the mark scheme is in two parts.

The first part is advice on the indicative content that suggests the range of concepts, processes, scales and environments that may be included in the learner's answers. These can be used to assess the quality of the learner's response. This is followed by an assessment grid advising on bands and the associated marks that should be given in responses that demonstrate the qualities needed in the three AOs; AO1, AO2 and AO3, relevant to this component. The targeted AO(s) are also indicated, for example AO2.1c.

Banded mark schemes are divided so that each band has a relevant descriptor. The descriptor for the band provides a description of the performance level for that band. Each band contains marks. Examiners should first read and annotate a learner's answer to pick out the evidence that is being assessed in that question. Once the annotation is complete, the mark scheme can be applied. This is done as a two stage process.

Banded mark schemes Stage 1 – Deciding on the band

Beginning at the lowest band, examiners should look at the learner's answer and check whether it matches the descriptor for that band. Examiners should look at the descriptor for that band and see if it matches the qualities shown in the learner's answer. If the descriptor at the lowest band is satisfied, examiners should move up to the next band and repeat this process for each band until the descriptor matches the answer.

If an answer covers different aspects of different bands within the mark scheme, a 'best fit' approach should be adopted to decide on the band and then the learner's response should be used to decide on the mark within the band. For instance if a response is mainly in band 2 but with a limited amount of band 3 content, the answer would be placed in band 2, but the mark awarded would be close to the top of band 2 as a result of the band 3 content.

Examiners should not seek to mark candidates down as a result of small omissions in minor areas of an answer.

Banded mark schemes Stage 2 – Deciding on the mark

Once the band has been decided, examiners can then assign a mark. During standardising (marking conference), detailed advice from the Principal Examiner on the qualities of each mark band will be given. Examiners will then receive examples of answers in each mark band that have been awarded a mark by the Principal Examiner. Examiners should mark the examples and compare their marks with those of the Principal Examiner.

When marking, examiners can use these examples to decide whether a learner's response is of a superior, inferior or comparable standard to the example. Examiners are reminded of the need to revisit the answer as they apply the mark scheme in order to confirm that the band and the mark allocated is appropriate to the response provided.

Indicative content is not exhaustive, and any other valid points must be credited. In order to reach the highest bands of the mark scheme a learner need not cover all of the points mentioned in the indicative content but must meet the requirements of the highest mark band. Where a response is not creditworthy, that is contains nothing of any significance to the mark scheme, or where no response has been provided, no marks should be awarded.

Where the specialised concepts are integral to knowledge and understanding, they are underlined in the indicative content.

The mark scheme reflects the layout of the examination paper. Mark questions 1, 2 and either questions 3 and 4 in Section A, or 5, 6 and either question 7 or 8 which reflects the learner's chosen theme of either coastal landscapes or glaciated landscapes, mark questions 9, 10 and either 11 or 12 in Section B. If the candidate has responded to all questions in Section A and B mark all these responses. Award the higher marks that have been attained; further, possible rubric infringement will be discussed at the marking conference.

Be prepared to reward answers that give **valid and creditworthy** responses, especially if these do not fully reflect the 'indicative content' of the mark scheme.

Section A: Changing Landscapes

Mark questions 1 and 2 if this is the selected landscape.

Either: Coastal Landscapes

1. a (i) Use *Figure 1* to outline how the choice of the shoreline management strategies shown in boxes *A* and *B* suggests that the principles of cost-benefit have been used.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
					5		**5**

Indicative content

Outline, AO3 includes identifying the type of coastal management strategy chosen and linking this to the principle of cost-benefit i.e. the choice of coastal defences will take into account the cost of a defence (building and maintenance) together with the value of the land (and properties) that it protects.

Box A

- Choice is 'Hold the line' which may involve costly defences
- The value of land will be higher where there are settlements and transport infrastructure and this is more likely to be protected e.g. settlements – Wells-next-the-Sea with homes, school transport routes – A149 at Wells and tourist attractions – miniature railway and stations

Box B

- Choice is 'No active intervention' which will involve no cost for defence
- The land may not be regarded as having economic value as it lacks costly infrastructure
- Mostly salt marsh and sand dunes

Marking guidance

Near the upper end, answers will show a clear link between cost-benefit analysis and the specific management strategies and evidence shown on the resource.

Near the lower end there will be limited application of principles of cost-benefit analysis and/or linkage to the resource.

Credit other valid approaches.

Award the marks as follows:

Band	Marks	
3	4-5	Well-developed outline of how the choices made suggest that the principle of cost-benefit has been used Wide use of the resource as evidence to support the choice
2	2-3	Unbalanced or partial outline of how the choices made suggest that the principle of cost-benefit has been used Partial use of the resource as evidence to support the choice
1	1	Limited outline of how the choices made suggest that the principle of cost-benefit has been used Very little use of the resource as evidence to support the choice
	0	Response not creditworthy or not attempted

1 a (ii) With reference to *Figure 1*, suggest why there is likely to be an increasing need for shoreline management.	AO1	AO2.1a	AO2.1b	AO2.1c	AO31	AO32	**Total**
			6				**6**

Indicative content

- Increasing need may be because of (causality) increasing storms, coastal flooding, sea level rise, together with more human activities along coasts e.g. building at Wells-next-the-sea, tourism. Increasing costs arise if coastal flooding were to occur in the areas shown in Figure 1 (rebuilding, insurance, emotional, impact on infrastructure such as the A149 and the B1105).

Marking guidance

Near the upper end, answers may, through introducing the idea of Shoreline Management Plans (SMP), show applied understanding by suggesting that piecemeal coastal protection schemes may not always be compatible with coastline needs shown in Figure 1 and elsewhere within the same sediment cell i.e. the concept of 'integrated strategies' (systems concept).

Near the lower end there will be limited application of the increased need for SMPs.

Credit other valid approaches.

Award the marks as follows:

Band	Marks	
3	5-6	Well-developed suggestions of reasons for an increasing need for shoreline management in a structured way Applies a range of knowledge and understanding about shoreline management (strategies) and their importance that is well linked to the resource
2	3-4	Partial and / or unstructured suggestions for an increasing need for shoreline management Some application of knowledge of shoreline management (strategies) linked to the resource
1	1-2	Few suggestions or suggestions are poorly applied Very limited or fragmented applied knowledge with very limited link to the resource
	0	Response not creditworthy or not attempted

1.b State what is meant by the term *isostatic change.*	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
Award 1 mark for any of the following, up to a maximum of 2 marks.	2						**2**

Indicative content

- Isostatic change refers to the relative movement of the land (1 mark), a local effect (1 mark)
- When the ice melts the weight is removed and land slowly rises (1 mark)
- When ice is on the land, the weight causes land to sink relative to sea level (1 mark)

Credit other valid points.

2. a (i) Use *Figure 2* to examine to what extent the coastline dynamics of Klaipeda and Kaliningrad differ.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
						5	**5**

Indicative content

- Kaliningrad has higher % eroding (accept reverse as alternative) – 72% against 27%
- Kaliningrad has lower % stable (accept reverse as alternative) – 20% against 60%
- Kaliningrad has lower % accreting (accept reverse as alternative) – 7% against 12%
- Highest in Kaliningrad is eroding whilst highest in Klaipeda is stable – 72% against 60%
- Accreting lowest in both – 7% and 12%
- Klaipeda increasing in stability whilst Kaliningrad decreasing in stability - 20%

Marking guidance

Near the upper end, answers will examine the extent that the coastlines differ and use figures and/or percentages to examine differences/similarities between the two coasts.

Near the lower end, answers lack examination of the extent and/or figures/percentages from the resource.

Credit other valid points.

Award the marks as follows:

Band	Marks	
3	4-5	Clear assessment of difference Wide use of the resource as evidence to support examination of extent
2	2-3	Some assessment of difference Partial use of the resource as evidence to support the choice
1	1	Limited descriptive statements that fail to assess difference Very little use of the resource as evidence to support the choice
	0	Response not creditworthy or not attempted

2. a (ii) Suggest *one* reason why rates of coastal erosion vary.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
Award 1 mark for valid interpretation of rates of coastal erosion, with the further mark for development			2				**2**

Indicative content

Suggestions may include the following:

- Geology – including hardness, joints, folds / faults
- Oceanographic – fetch, wave characteristics, ocean floor character
- Coastal characteristics – orientation, elevation
- Human activity – coastal defence, sea level changes

Credit other valid points.

2. b Describe *two* ways in which coastal sediment is transported.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
	6						**6**

Indicative content

Candidates may approach the identification of ways in one of two approaches – some may define it as:

- small scale and refer to suspension, saltation, solution or traction (3 marks) or
- some may define it at a larger scale and refer to waves, longshore drift, tides, storm surges, currents and aeolian (3 marks)

Credit either approach.

Give full credit to knowledge demonstrated within a well-annotated diagram.

Marking guidance

Near the upper end, answers that score highly in AO1 should identify the distinctive features of each selected method of transport and give a clear description of how it moves sediment in the coastal environment. Descriptions should show clear factual detail on sediment transport.

Near the lower end, answers may describe the processes with limited knowledge of their distinctive features or of their contribution to sediment transport.

Credit other valid approaches.

Award the marks as follows:

Band	Marks	
3	5-6	Clear knowledge of two methods of coastal sediment transport
2	3-4	Some and / or unstructured knowledge of coastal sediment transport Developed knowledge of one method of coastal sediment transport
1	1-2	Limited knowledge of coastal sediment transport
	0	Response not creditworthy or not attempted

3. Evaluate the importance of sediment transport in the development of *one* coastal depositional landform.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
	10			5			**15**

This question requires candidates to demonstrate their ability to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

AO1

AO1 content encompasses knowledge and understanding of the processes of sediment transport and their link to landform development. This may include:

- The formation of spits or bars or tombolos or cuspate forelands by longshore drift, the detailed characteristics of spits such as sediment size variation and the form of beach profile can be explained by the varying strength of waves to transport sediment
- The formation of beaches by wave transport and longshore drift, the detail of beach profile can be explained by wave types and strength of swash and backwash
- The formation of marshes or tidal flats in a low energy environment with transport of sediment into the environment by tidal currents and fluvial action
- The formation of sand dunes by aeolian transport
- The formation of deltas and the interaction of a number of transport processes such as fluvial action, wave action and tidal action

AO2

Candidates demonstrate application of knowledge and understanding through an evaluation of the importance of sediment transport in the development of one coastal landform. Relevant responses may include:

- The relative importance of different forms of sediment transport in the production of the whole landform for example, the relative importance of tidal and fluvial transport processes in inter-tidal zones (marshes)
- The relative importance of different transport processes in the formation of features of different scales for example, contrasting the relative importance of longshore drift in the formation of larger scale features (such as spits) with the role of wave action in smaller scale features (such as berms and ridges/runnels)
- A critical synthesis of the sources, flows and stores of sediment within a systems framework of a coastal sediment cell
- The extent to which associated factors may have a role in the formation of landforms of coastal deposition for example, the role played by vegetation in the formation of sand dunes and marshes
- Comparison of the relative importance of sediment transport in the same landform in different locations for example, in the development of arcuate and birds foot deltas

Near the upper end, answers could reflect on causality and will comment on the importance of transport. Answers that score highly will judge the importance of transport in the coastal system relative to different processes of transport or other processes such as erosion, weathering or human impact. Some may evaluate how the process of transport fits into the development of the landform.

Near the lower end, there will be very limited evaluation of the relative role of transport.

Credit other valid approaches.

Award the marks as follows:

	AO1 (10 marks)	**AO2.1c (5 marks)**
	Demonstrates knowledge and understanding of coastal processes and how they produce one coastal depositional landform	*Applies (AO2.1c) to appraise / judge through evaluating the importance of sediment transport in the production of one coastal depositional landform*
Band		
3	7-10 marks Demonstrates detailed and accurate knowledge and understanding through the use of appropriate, accurate and well-developed examples Demonstrates detailed and accurate knowledge and understanding of coastal transport and their link to the development of one coastal depositional landform Demonstrates detailed and accurate knowledge and understanding of other coastal processes and their link to landforms Well annotated sketches / diagrams may be used and should be credited	4-5 marks Applies knowledge and understanding to produce a thorough and coherent evaluation that is supported by evidence Applies knowledge and understanding to produce a thorough and coherent evaluation of the importance of sediment transport in the development of one coastal depositional landform Balanced evaluation of the other appropriate processes in the development of one coastal depositional landform, recognising that coastal depositional landforms are the result of the interaction of a number of processes operating at the coast
2	4-6 marks Demonstrates accurate knowledge and understanding through the use of appropriate and well-developed examples Demonstrates accurate knowledge and understanding of coastal transport processes and their link to the development of one coastal depositional landform Demonstrates accurate knowledge and understanding of other coastal processes and their link to landforms Sketches / diagrams may be used and should be credited	2-3 marks Applies knowledge and understanding to produce a coherent but partial evaluation that is supported by some evidence Applies knowledge and understanding to evaluate the importance of sediment transport in the development of one coastal depositional landform Partial evaluation of the other appropriate processes in the development of one coastal depositional landform, recognising that coastal depositional landforms are the result of a number of processes operating at the coast
1	1-3 marks Demonstrates limited knowledge and understanding through a limited number of undeveloped examples Demonstrates limited knowledge and understanding of coastal transport processes and their link to the development of one coastal depositional landform Demonstrates limited knowledge and understanding of other coastal processes and their link to landforms Basic sketches / diagrams may be used and should be credited	1 mark Applies knowledge and understanding to produce an evaluation with limited coherence and support from some evidence Limited application of knowledge and understanding to evaluate the importance of sediment transport in the development of one coastal depositional landform Limited evaluation of the other appropriate processes in the development of one coastal depositional landform, recognising that coastal depositional landforms are the result of some processes operating at the coast
	0 marks Response not creditworthy or not attempted	0 marks Response not creditworthy or not attempted

4. To what extent has a fall in sea level modified coastal landscapes?	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
	10			5			**15**

This question requires candidates to demonstrate their ability to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

AO1

AO1 content encompasses knowledge and understanding of the processes of sea level fall and its link to the development of coastal landscapes. This may include:

- Knowledge and understanding of how a fall in sea level occurs to include the positive balance between isostatic rebound and eustatic sea level rise
- Knowledge and understanding of how a relative (negative) fall in sea level results in more of the coastline being exposed (causality)
- Knowledge and understanding of raised beach formation where depositional processes produce a beach at a higher sea level which becomes a relict landform as isostatic recovery occurs
- Knowledge and understanding of the formation of raised cliffs, stacks, caves and wave cut platforms where erosional processes produce coastal landscapes of erosion at a higher sea level which becomes a relict landform as isostatic recovery occurs
- Knowledge and understanding that these features are being modified by present day coastal processes, weathering and mass movement

AO2

Candidates demonstrate application of knowledge and understanding through an evaluation of the role played by a fall in sea level in the formation of coastal landscapes. This may include:

- The extent to which the magnitude of a fall in sea level impacts in different locations e.g. by comparing the relative importance of a fall in sea level in Western Scotland compared to the Gower, Wales
- The extent to which repeated falls in sea level may modify coastal landscapes more or less than in locations where there is only one episode of falling sea level
- Synthesis of the complex interactions and processes that occur in coastal landscapes which are the result of complex sequences of sea level change
- Evaluation of the extent to which coastal landscapes are the result of historic sea level fall rather than present day coastal and subaerial processes

Expect answers to include description of coastal features of emergence; exemplification, with possible use of diagrams.

Near the upper end, answers will focus on the extent coastlines are modified due to a fall in sea level. Answers that score highly will consider the size and extent of the modification or how later processes (e.g. weathering) have continued the modification.

Near the lower end, there will be limited consideration of 'to what extent' and a limited number of features.

Credit other valid approaches.

Award the marks as follows:

	AO1 (10 marks)	**AO2.1c (5 marks)**
	Demonstrates knowledge and understanding of the features associated with a fall in sea level	*Applies (AO2.1c) to appraise 'to what extent' a fall in sea level has modified the coastal landscape*
Band		
3	7-10 marks Demonstrates detailed and accurate knowledge and understanding through the use of appropriate and well-developed examples Demonstrates detailed and accurate knowledge and understanding of sea level fall and its link to the modification of a coastal landscape Demonstrates detailed and accurate knowledge and understanding of other coastal and subaerial processes and their link to the modification of a coastal landscape Well-annotated sketches / diagrams may be used and should be credited	4-5 marks Applies knowledge and understanding to produce a thorough and coherent evaluation that is supported by evidence Applies knowledge and understanding to thoroughly and coherently consider 'to what extent' a fall in sea level has modified the coastal landscape Balanced evaluation of the other appropriate processes in the modification of a coastal landscape
2	4-6 marks Demonstrates accurate knowledge and understanding through the use of appropriate and well-developed examples Demonstrates accurate knowledge and understanding of sea level fall and its link to the modification of a coastal landscape Demonstrates accurate knowledge and understanding of other coastal and subaerial processes and their link to the modification of a coastal landscape Sketches / diagrams may be used and should be credited	2-3 marks Applies knowledge and understanding to produce a coherent but partial evaluation that is supported by some evidence Applies knowledge and understanding to consider 'to what extent' a fall in sea level has modified the coastal landscape Partially developed evaluation of the other appropriate processes in the modification of a coastal landscape
1	1-3 marks Demonstrates limited knowledge and understanding through a limited number of undeveloped examples Demonstrates limited knowledge and understanding of the features associated with a fall in sea level Demonstrates limited knowledge and understanding of other coastal and subaerial processes and their link to the modification of a coastal landscape Basic sketches / diagrams may be used and should be credited	1 mark Applies knowledge and understanding to produce an evaluation with limited coherence and support from some evidence Applies knowledge and understanding to produce limited consideration of 'to what extent' a fall in sea level has modified the coastal landscape. Limited evaluation of the other appropriate processes in the modification of a coastal landscape
0	0 marks Response not creditworthy or not attempted	0 marks Response not creditworthy or not attempted

Or: Glaciated Landscapes

Mark questions 5, 6 and, either 7 or 8 if this is the selected landscape.

5. a (i) Use *Figure 3* to assess variations in the rates of change in the polar ice mass.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
					5		**5**

Indicative content

Assessment should use the data to weigh up the importance of the changes and this can be related to the base line, the rate of change and the variability of change which are shown on the graph. Candidates could:

- Recognise the overall decline between 1991 and 2010 relative to the base line
- Recognise that at times the rate of decline is rapid e.g. between 1993 and 1995
- Recognise that at times the rate of decline is less rapid e.g. 1996 to 2006
- Recognise that in some years there is an increase relative to the base line e.g. 1992 to 1993
- Recognise that change is variable over the time period shown

Marking guidance

Near the upper end, answers may recognise a variety of changes specifically linked to the resource, using dates and figures to assess appropriately.

Near the lower end, answers may simply identify a general trend with occasional use of dates.

Credit other valid comments.

Award the marks as follows:

Band	Marks	
3	4-5	Clear assessment of the rates of change Wide use of the resource as evidence to support the assessment
2	2-3	Some assessment of different rates of change Partial use of the resource as evidence to support the assessment
1	1	Limited statements that fail to identify rates of change
	0	Response not creditworthy or not attempted

5. a (ii) Explain why seasonal changes in the polar ice mass balance are the result of variations in inputs and outputs.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
		6					**6**

Indicative content

The question explores applied knowledge and understanding through analysis (AO2) of possible reasons for variations in polar ice mass balance introduced in the resource.
Answers should show applied understanding of how inputs and outputs impact upon accumulation and ablation.

- Seasonal changes in snowfall input impact on accumulation
- Temperature changes throughout the year impact on the overall amount of ablation and location of ablation within the glacial system
- Reference could be made to calving at snout of polar ice masses
- Some answers may be stimulated by the graph to examine how seasonal changes have varied over time. There may be a comparison of the relative value of inputs and outputs overtime. This can be given credit as long as the seasonal element is included

Marking guidance

Near the upper end, answers will have clear applied knowledge and understanding of input / output processes and their role in how these lead to changes in ice mass balance. Near the lower end, there may be a focus on process with limited detail and link to ice mass balance.

Credit other valid approaches.

Award the marks as follows:

Band	Marks	
3	5-7	Well-developed explanation of the processes involved in inputs and outputs Applies knowledge of the link between inputs / outputs and ice mass balance
2	3-4	Partial or unbalanced and / or unstructured explanation of the processes involved in inputs and outputs Some application of knowledge of the link between inputs / outputs and ice mass balance
1	1-2	Little or no explanation of the processes involved in inputs and outputs Very limited / fragmented applied knowledge of the link between inputs / outputs and ice mass balance
	0	Response not creditworthy or not attempted

5. b Distinguish between warm-based and cold-based glaciers.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
Award 2 marks for distinction of characteristics	2						**2**

Indicative content

Cold based glaciers (1 mark):

- Are frozen to the bedrock all year round
- Temperature of the ice stays at zero degrees constantly
- Tend to move via internal deformation

Warm based glaciers(1 mark):

- Are not frozen to the bedrock all year round
- The temperature of these glaciers is not constantly below freezing so water exists within the ice
- The water acts as a lubricant so basal sliding can occur

Credit other valid points.

6. a (i) Use *Figure 4* to compare changes to the landscape caused by climate change between 1992 and 2009. Include relevant data in your answer.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	Total
						5	5

Indicative content

- Area of Lake Thulagi has increased
- Length of lake has increased; 2.55 km (2009) and 1.85 km (1992) = + (0.7 km) 700 in 17 years 700 ÷ 17
- Quantification – increase of 0.13 sq.km (0.81 to 0.94 sq.km)
- Length of the Thulagi Glacier has decreased
- Quantification – it is now 0.007 km shorter (5.1km – 5.03km)
- Ice core in recessional moraine has melted by 15m

Marking guidance

Near the upper end, answer will compare the changes by making specific reference to the resource using dates and data where appropriate.

Near the lower end, answers may state changes and occasionally use date and data to back up the points made.

Credit other valid points.

Award the marks as follows:

Band	Marks	
3	4-5	Well-developed comparison of changes to the landscape Wide use of the resource as source of data to support the description
2	2-3	Partial identification of changes to the landscape with some comparison Partial use of the resource as source of data to support the description
1	1	Limited statements of change with no use of the resource as source of data
	0	Response not creditworthy or not attempted

6. a (ii) Contrast the depositional location of terminal and medial moraines.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
Award 1 mark for correct contrasting statement of one with another moraine		2					2

Indicative content

Terminal moraines (1 mark)
- Mark the end of a glacier
- Run in arcs at snout of glacier
- Mark former positions of a glacier front

Medial moraines (1 mark)
- Ridge of unconsolidated material in the middle of an existing glacier
- Two alpine glaciers flow together their lateral moraines join to form a medial moraine
- Downstream from rock outcrops extending up through the surface of alpine glaciers

Credit other valid points.

6. b Outline *two* processes of glacial erosion.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
	6						**6**

Indicative content

- Erosion by ice may include abrasion and plucking / quarrying
- Erosion by meltwater may include subglacial fluvial erosion
- There may be reference to unusual but valid processes such as chemical denudation in special geological situations or bulldozing of unconsolidated sediment by glacial surges

Give full credit to a well-annotated diagram and other valid approaches.

Marking guidance

Near the upper end, answers that score well will identify two valid methods of glacial erosion and provide a clear summary of their main characteristics and operation as erosion processes.

Near the lower end, answers will display limited knowledge of the characteristics and operation of methods of glacial erosion.

Award the marks as follows:

Band	Marks	
3	5-6	Well-developed outline of two processes of glacial erosion
2	3-4	Some and / or unstructured outline of two processes of glacial erosion Or, developed knowledge and understanding of one method of glacial erosion
1	1-2	Limited outline of two processes of glacial erosion
	0	Response not creditworthy or not attempted

7. Evaluate the importance of geological factors in affecting rates of glacial erosion.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	Total
	10			5			**15**

This question requires candidates to demonstrate their ability to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

AO1

AO1 content encompasses knowledge and understanding of the importance of geology in affecting the rate of glacial erosion. This may include:

- Knowledge and understanding of the geological characteristics that influence the rate of glacial erosion, for example rock hardness, jointing and permeability
- Knowledge and understanding of the link between geological characteristics and erosional processes (plucking, abrasion, meltwater, pressure release and freeze thaw weathering), for example the link between jointing and plucking
- Knowledge and understanding of the indirect impacts of geology on the rate of threat of glacial erosion, for example the influence of geology upon topography and gradient and how these link to the rate of erosion
- Knowledge and understanding of the interactions that influence the rate of glacial erosion, for example well jointed rocks produce more debris that can be used as an abrasive tool
- Knowledge and understanding of the other factors that influence the rate of glacial erosion, for example ice thickness, ice velocity, warm/cold based glaciers
- Knowledge and understanding of the other factors and how they impact upon the rate of glacial erosion, for example where ice thickness is greater, erosion increases as ice moves faster and increased pressure causes melting at the base

AO2

Candidates demonstrate application of knowledge and understanding through the evaluation of the importance of geological factors in the rate of glacial erosion. This may include:

- Evaluation of geological factors in relation to other factors such as climatic factors or rates of climate change
- The extent to which geology is capable of influencing rates of glacial erosion compared to the importance of different types of glacier, for example, warm based and cold based
- Whether or not geology is a critical factor in determining erosion rates dependent on different processes of glacial erosion, for example plucking may be more influenced by geology than meltwater erosion
- Evaluation of the relative influence of geology over time during the development of a suite of glacial landforms, for example, whether the role of geology becomes more or less important as ice thickness varies

Near the upper end, answers that score well will understand that geology is not the only factor that impacts upon rates of glacial erosion and put this into a systems context. Evaluation may reflect on causality and could develop a comparison of one other factor with geology or a less developed consideration of a number of other factors. There should be an indication of the relative importance that can be an overview or comments interspersed within the text.

Near the lower end, there will be limited evaluation of the 'importance.'

Credit other valid approaches.

Award the marks as follows:

AO1 (10 marks)		**AO2.1c (5 marks)**
Demonstrates knowledge and understanding of processes and links to rates of glacial erosion		*Applies (AO2.1c) to appraise / judge through evaluating the importance of geology*
Band		
3	7-10 marks Demonstrates detailed and accurate knowledge and understanding through the use of appropriate and well-developed examples Demonstrates detailed and accurate knowledge and understanding of geological factors and their link to rates of glacial erosion Demonstrates detailed and accurate knowledge and understanding of other appropriate factors and their link to rates of glacial erosion Well-annotated sketches / diagrams may be used and should be credited	4-5 marks Applies knowledge and understanding to produce a thorough and coherent evaluation that is supported by evidence Applies knowledge and understanding to produce a thorough and coherent evaluation of the relative importance of geological factors on rates of glacial erosion Balanced evaluation of the other appropriate factors influencing rates of glacial erosion
2	4-6 marks Demonstrates accurate knowledge and understanding through the use of appropriate and well-developed examples Demonstrates accurate knowledge and understanding of geological factors and their link to rates of glacial erosion Demonstrates accurate knowledge of other appropriate factors and their link to rates of glacial erosion Sketches / diagrams may be used and should be credited	2-3 marks Applies knowledge and understanding to produce a coherent but partial evaluation that is supported by some evidence Applies knowledge and understanding to produce an evaluation of the relative importance of geological factors on rates of glacial erosion Partial evaluation of the other appropriate factors influencing rates of glacial erosion
1	1-3 marks Demonstrates limited knowledge and understanding through a limited number of examples Demonstrates limited knowledge and understanding of geological factors and their link to rates of glacial erosion Demonstrates limited knowledge and understanding of other appropriate factors and their link to rates of glacial erosion Basic sketches / diagrams may be used and should be credited	1 mark Applies knowledge and understanding to produce an evaluation with limited coherence and support from some evidence Applies knowledge and understanding to produce a limited evaluation of the importance of geological factors on rates of glacial erosion Limited evaluation of the other appropriate factors influencing rates of glacial erosion
	0 marks Response not creditworthy or not attempted	0 marks Response not creditworthy or not attempted

8. Evaluate the importance of fluvioglacial transport in the characteristics and formation of *one* fluvioglacial landform.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
	10			5			15

This question requires candidates to demonstrate their ability to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.

Indicative content:

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

AO1

AO1 content encompasses knowledge and understanding of the importance of fluvioglacial transport in the characteristics and formation of a fluvioglacial landform. This may include:

- Knowledge and understanding of the processes of fluvioglacial transport, for example traction, saltation and suspension
- Knowledge and understanding of how variations in fluvioglacial energy impact upon transportation processes
- Knowledge and understanding of how fluvioglacial transport influences the characteristics and formation of an ice contact fluvioglacial landform. For example the sinuous nature of eskers is rallied to their origin in glacial streams that transport sediment in sub-, en- and supra-glacial streams. The rounded nature of the sediment relates to water movement
- Knowledge and understanding of how fluvioglacial transport influences the characteristics and formation of a pro glacial landform. For example the seasonal differences in transport leading to the formation of sedimentary characteristics of varves
- Knowledge and understanding of other glacial processes that influence the characteristics and formation of a fluvioglacial landform. For example the influence of ice melt on the shape of kames and kame terraces
- Knowledge and understanding of post glacial processes on the characteristics of an ice contact/pro glacial landform. For example the impact of mass movement on the degradation of esker slopes

AO2

Candidates demonstrate application of knowledge and understanding through the evaluation of the relative importance of fluvioglacial transport in the characteristics and formation of a fluvioglacial landform. This may include:

- Evaluation of the relative importance of fluvioglacial transport with reference to depositional processes, for example the role of seasonal deposition in the formation of landforms varies after transport has delivered the sediment
- Evaluation of the relative importance of fluvioglacial transport with reference to erosional processes, for example the erosional processes that produce different sediment sizes that give sorted character of sandur plains
- Evaluation of the relative importance of fluvioglacial transport with reference to location within the glacial system, for example the frequency of kettle holes in relation to ice margins
- Evaluation of the relative importance of fluvioglacial transport with reference to post glacial processes, for example the changes in slope angle that are the result of fluvial erosion of kames

Near the upper end, answers that score well will focus on the importance of fluvioglacial transport that may be relative to other processes such as deposition or variations in types of materials carried and should evaluate the role of water in the processes.

Near the lower end, there is likely to be limited evaluation of ‘importance’ of fluvioglacial transport.

Credit other valid approaches.

Award the marks as follows:

	AO1 (10 marks)	**AO2.1c (5 marks)**
	Demonstrates knowledge and understanding of the characteristics and formation of one fluvioglacial landform	*Applies (AO2.1c) to appraise / judge through evaluating the importance of fluvioglacial transportation in the characteristics and formation of the selected landform*
Band		
3	7-10 marks Demonstrates detailed and accurate knowledge and understanding through the use of appropriate and well-developed examples Demonstrates detailed and accurate knowledge and understanding of fluvioglacial processes and their link to the characteristics and the formation of a fluvioglacial landform Demonstrates detailed and accurate knowledge and understanding of other appropriate processes and their link to the characteristics and formation of a fluvioglacial landform Well-annotated sketches / diagrams may be used and should be credited	4-5 marks Applies knowledge and understanding to produce a thorough and coherent evaluation that is supported by evidence Applies knowledge and understanding to reach a thorough and coherent evaluation of the relative importance of fluvioglacial processes and their link to the characteristics and formation of a fluvioglacial landform Balanced evaluation of the other appropriate processes influencing the characteristics and formation of a fluvioglacial landform
2	4-6 marks Demonstrates accurate knowledge and understanding through the use of partially developed examples Demonstrates accurate knowledge and understanding of fluvioglacial processes and their link to the characteristics and the formation of fluvioglacial landforms Demonstrates accurate knowledge and understanding of other appropriate processes and their link to the characteristics and formation of a fluvioglacial landform Sketches / diagrams may be used and should be credited	2-3 marks Applies knowledge and understanding to produce a coherent but partial evaluation that is supported by some evidence Applies knowledge and understanding to evaluate the relative importance of fluvioglacial processes and their link to the characteristics and formation of a fluvioglacial landform Applies knowledge and understanding to provide an evaluation of the other appropriate processes influencing the characteristics and formation of a fluvioglacial landform

1	1-3 marks Demonstrates limited knowledge and understanding through the use of undeveloped examples Demonstrates limited knowledge and understanding of fluvioglacial processes and their link to the characteristics and the formation of fluvioglacial landforms Demonstrates limited knowledge and understanding of other appropriate processes and their link to the characteristics and formation of a fluvioglacial landform Basic sketches / diagrams may be used and should be credited	1 mark Applies knowledge and understanding to produce an evaluation with limited coherence and support from some evidence Limited application of knowledge and understanding to evaluate the relative importance of fluvioglacial processes and their link to the characteristics and formation of a fluvioglacial landform Limited evaluation of the other appropriate processes influencing the characteristics and formation of a fluvioglacial landform
	0 marks Response not creditworthy or not attempted	0 marks Response not creditworthy or not attempted

Section B: Changing Places

*Mark questions 9, 10 and, **either** 11 **or** 12 in this section.*

9. a (i) Define the term *quaternary industry*.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
Award 1 mark for any of the following, up to a maximum of 2 marks	2						**2**

Indicative content

- Research and development activities / new knowledge creation (1 mark)
- High-skilled / highly-paid / professional workforce (1 mark)
- Straddles several sectors including biotechnology, ICT, etc. (1 mark)

9 a (ii) Study Figure 5. Calculate the missing figures for the South West and the North West.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	Total
					2		**2**

Indicative content

UK Region	**% of residents aged 16-64 with degree level or above**	**Rank**	**% Quaternary industry**	**Rank**	**Difference (d)**	**Difference squared (d^2)**
South West				4.5	1.5	2.25
North West				4.5	-0.5	0.25

Marking Guidance

Correct value for rank, difference (d) and difference squared (d2) for South West region (1) and North West region (1). The South West region and North West region have tied ranks and in order to allocate a rank order it is necessary to calculate the average rank that they occupy. Rankings are calculated by adding up the rankings 4 and 5 and dividing by the number of regions (2) to find the mean.

9 a (iii) The Spearman Rank Correlation Co-efficient (r_s) was calculated as rs = 0.67. Using the values of r_s in the table below, state the statistical significance of the result and explain your decision.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	Total
					3		**3**

Indicative content

As the calculated figure of +0.67 is above the tabulated figure at the 95% confidence level at n=12 (0.50) but below the tabulated figure at the 99% confidence level at n=12 (0.71), it can be stated with 95% confidence that there is a statistically significant positive correlation between the percentage of residents aged 16-64 with degree level or above qualifications and the percentage of quaternary industry in the 12 regions of the UK

Marking Guidance

1 mark for correct result
2 marks for explanation

Correct confidence level (95%) selected at n=12 (1). Correct interpretation of the statistical significance of the result that there is a positive correlation between the percentage of residents aged 16-64 with degree level or above qualifications and the percentage of high tech industry in the 12 regions of the UK (1) that is significant at the 95% but not the 99% confidence level (1)

9. b Describe how the process of gentrification leads to changes in the characteristics of places.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
	6						**6**

Indicative content

- Renovation/refurbishment/renewal of a place
- Gives a detail of physical landscape changes
- Gives a detail of social changes/displacement
- Process may be driven by investors, government or both
- Can take place in inner cities or rural villages
- Describes (not simply names) an example

Marking guidance

Near the upper end, answers that score well will provide a clear description and may use place specific examples to back up the points made.

Near the lower end, answers will display limited knowledge of the variety of factors that lead to changes.

Credit other valid points.

Award the marks as follows:

Band	Marks	
3	5-6	Demonstrates detailed and accurate knowledge and understanding through the use of appropriate and well-developed examples Clear knowledge and understanding of the process of gentrification and description of how it changes the characteristics of places
2	3-4	Demonstrates accurate knowledge and understanding through the partial use of appropriate and partially developed examples Partial knowledge and understanding of the process of gentrification and description of how it changes the characteristics of places
1	1-2	Demonstrates limited knowledge and understanding through the use of undeveloped examples Limited knowledge and understanding of the process of gentrification and description of how it changes the characteristics of places
	0	Response not creditworthy or not attempted

10. a Use the information in *Figure 6* to assess the success of tourism in this location.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
						5	**5**

Indicative content

The responses are expected to address both qualitative and quantitate aspects of the resource.

Negatives
- Longer stay visitor numbers are decreasing
- Overall decrease in day trippers although trend is variable
- Comments on weather and value for money
- Impact of tourism on traffic
- Lack of high quality employment

Positives
- Day tripper numbers remain high
- Attractions of physical environment

Credit other valid points.

Marking guidance

Near the upper end, answers that score well will make specific reference to the comments and data provided in order to assess success. Answers will make reference to both the positive and negative aspects highlighted by the resource and their relative merits and importance, addressing both qualitative and quantitate aspects, in order to assess the success of tourism in the location.

Near the lower end, answers will display limited use of the resource and may focus only on the positives or the negatives.

Award the marks as follows:

Band	Marks	
3	4-5	Well-developed assessment of success of tourism in this location Wide use of the resource as source of data to support opinion
2	2-3	Partial assessment of success of tourism in this location Partial use of the resource as source of data to support opinion
1	1	Limited assessment of success of tourism in this location Limited use of the resource as source of data to support opinion
	0	Response not creditworthy or not attempted

10. b Suggest how the trends shown in *Figure 6* can affect local rural communities.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
			8				**8**

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

Analysis of the trends and viewpoints in Figure 6 could suggest the following interpretations:

- Reduction in longer stay visitors between 2005 and 2015 could result in a reduction of jobs available for the local community
- Those jobs that are available may be low paid and only provide seasonal employment
- The fluctuation in the number of day trippers year on year could result in lack of predictability for workers and businesses. This could increase the use of zero-hours contracts
- Increased cost of housing
- The lack of jobs and falling number of longer stay visitors (approx. 4000 reduction between 2005 and 2015) could force local people to move away in search of work, changing the culture of the rural community
- Environmental damage
- Employment opportunities viable as day tripper numbers are still high
- Capital injections are still made as tourists continue to arrive
- Continuation of tourism enables preservation of traditional industries, culture and art
- Renovation of buildings and preservation of the natural environment is more likely in order to keep attracting the tourists such as those who commented in the visitor book

Credit other valid approaches.

Making guidance

Near the upper end, those that score highly will interpret the resource by suggesting how there is a link between tourism in the post productive countryside and changes in rural communities. The concept of causality can be introduced related to the changes and the resultant changing identity of the community. Some answers may reflect on the resilience of communities and use places they have studied within a similar context, to illustrate points made.

Near the lower end, there is likely to be limited suggestions about possible impacts.

Award the marks as follows:

Band	Marks	
3	6-8	Applies knowledge and understanding to produce a thorough and coherent interpretation that is supported by evidence Applies knowledge and understanding to make well-developed suggestions of a range of possible impacts in a structured way, which makes specific reference to the resource and the context Selectively applies a range of relevant knowledge about rural communities / issues related to the resource
2	3-5	Applies knowledge and understanding to produce a coherent but partial interpretation that is supported by some evidence Applies knowledge and understanding to make partial and / or unstructured suggestions of relevant impacts (two or more), which makes some reference to the resource and the context Some application of generalised knowledge about rural communities / issues related to the resource
1	1-2	Applies knowledge and understanding to produce an interpretation with limited coherence and support from some evidence Few or no suggestions of any impacts Very limited / fragmented applied knowledge of rural communities / issues
	0	Response not creditworthy or not attempted

11. Evaluate why some people have benefited more than others from recent changes in the central areas of cities.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
	10			5			**15**

This question requires candidates to demonstrate their ability to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

AO1

AO1 content encompasses knowledge and understanding of the impact of changes in the central areas of cities. This may include:

- New office growth, the development of 24-hour consumption of services provided in central areas, culture and entertainment growth, the growth of student accommodation, removal of polluting industry
- Office and service growth in many central areas, such as Cardiff and London, provides new employment for residents
- Associated construction, supply chain work due to multiplier effect (A8 migrants may benefit)
- Central areas of cities are being reclaimed for residential uses
- Everyone benefits from less polluted post-industrial environment (less industry in inner cities)
- The decline of retail outlets due to out-of-town competition, local market failure (post-2008), the homogenisation of town centres, increased rates of building vacancy, declining environmental quality, increasing crime rates
- Not everyone has found employment (e.g. unskilled manual workers)
- Some people prefer the new sense of place – lively 24-hour bars and clubs – but not all agree
- Town centres lose their individuality and become less interesting places to shop or use for entertainment

AO2

The candidate demonstrates application of knowledge and understanding though evaluation of variations in why people have benefited from the recent changes in the central areas of cities. This requires a judgement and should be accompanied by supporting evidence. This may include:

- Some changes may provide more benefit to people living within the city's sphere of influence than others
- The extent to which changes may provide different levels of benefit to different age groups. For example, older people and young families may not benefit from 24-hour entertainment culture in some urban areas whilst younger age groups make full use of the services provided
- The 'benefits' may be contested by different groups of people who have different perceptions. For example, the relative social benefits of change, such as late night entertainment, may be contrasted with perceived problems such as the potential increase in anti-social behaviours such as drunkenness, vandalism and littering
- The 'benefits' created by economic change, such as job opportunities created by globalising economic development, may be contrasted with the loss of local identity that is associated with a corporate homogenous urban landscape
- The decline of services and increased vacancy in central urban areas may benefit people involved in pop-up shops but less so for those who value economic vibrancy and variety

Credit other valid approaches.

Near the upper end, answers that score well will evaluate why benefits vary for different groups of people living within the same place (incomers / gentrifies / residents / visitors) and also between different settlements, with decline in some but not others.

Near the lower end, there is likely to be limited evaluation of benefits for different people.

Award the marks as follows:

	AO1 (10 marks)	**AO2.1c (5 marks)**
	Demonstrate knowledge and understanding of changes in central areas of cities	*Applies (AO2.1c) to appraise / judge through evaluating the uneven benefits that changes bring*
Band		
3	7-10 marks Demonstrates detailed and accurate knowledge and understanding through the use of appropriate and well-developed examples Demonstrates detailed and accurate knowledge and understanding of the economic, social, environmental and demographic changes that have taken place in the central areas of cities and why different people have benefited. Well annotated sketches / diagrams / maps may be used and should be credited	4-5 marks Applies knowledge and understanding to produce a thorough and coherent evaluation that is supported by evidence Applies knowledge and understanding to produce a thorough and coherent evaluation of why some groups of people have benefited more from the economic, social, environmental and demographic changes than others Balanced evaluation of interaction of the elements of benefit experienced by different people
2	4-6 marks Demonstrates accurate knowledge and understanding through the use of appropriate and partially developed examples Demonstrates accurate knowledge and understanding of the economic, social, environmental and demographic changes that have taken place in the central areas of cities and why different people have benefited Sketches / diagrams may be used and should be credited	2-3 marks Applies knowledge and understanding to produce a coherent but partial evaluation that is supported by some evidence Applies knowledge and understanding to evaluate why some groups of people have benefited more from the economic, social, environmental and demographic changes than others Partial evaluation of interaction of the elements of benefit experienced by different people
1	1-3 marks Demonstrates limited knowledge and understanding through the use of examples Demonstrates limited knowledge and understanding of the economic, social, environmental and demographic changes that have taken place in the central areas of cities and why different people have benefited Basic sketches / diagrams may be used and should be credited	1 mark Applies knowledge and understanding to produce an evaluation with limited coherence and support from some evidence Applies limited knowledge and understanding to provide a limited evaluation of why some groups of people have benefited more from the economic, social, environmental and demographic changes than others Limited evaluation of interaction of the elements of benefit experienced by different people
0	0 marks Response not creditworthy or not attempted	0 marks Response not creditworthy or not attempted

12. Assess how far different aspects of the rural rebranding process may rely on internet availability.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	**Total**
	10			5			**15**

This question requires candidates to demonstrate their ability to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

AO1

AO1 content encompasses knowledge and understanding of the different aspect of rural rebranding process and how it may rely on broadband. This may include:

- How rebranding rural areas as tourist destinations is enhanced by broadband connection giving internet connection for customers and advertising
- How rebranding rural areas as business locations is enhanced by broadband connection giving access to marketing and enabling large amounts of data to be transferred for high tech businesses
- How rebranding rural areas as telecommuting locations are enhanced by broadband connection as it gives access to main offices in urban areas
- How rural areas can be rebranded as desirable places for families to live as broadband connections provide support for health and education services
- How rural areas can be rebranded as diversified locations as broadband enables traditional industries to market their products (e.g. organics) and provide a greater variety of services (tourist accommodation and craft workshops)
- How rebranding rural areas may depend on a variety of other factors such as government support, road access and environmental improvement

AO2

Candidates go beyond knowledge and understanding to weigh up the importance of broadband in rebranding rural areas. This may include:

- The extent to which internet availability is important to different elements of rebranding, for example it is vital for telecommuting but less important for tourism
- The relative importance of internet availability in different rural locations where areas that seek to attract high tech industries must have access to broadband
- The changing importance over time of internet availability as economy and society become more dependent on technology
- The importance of internet availability relative to other factors that contribute to rebranding rural areas such as environmental quality and a desire for isolation
- The importance of internet availability relative to the cost of installation and frequent upgrade to keep abreast of technology

Credit other valid approaches.

Near the upper end, answers that score well will assess how these different aspects are interdependent (economic growth supports in-migration of families which in turn builds school numbers) and may be carefully structured around the stages of rural rebranding process (from funding, through representation, to delivery of new services; a view might even be taken as to which stage needs broadband most).

Near the lower end, there is likely to be limited examination of the reliance of rural rebranding on internet availability.

Award the marks as follows:

		AO1 (10 marks)	**AO2.1c (5 marks)**
		Demonstrates knowledge and understanding of broadband and rural rebranding	*Applies (AO2.1c) to appraise / judge through assessing the different aspects of the rebranding process*
3	4-5	7-10 marks Demonstrates detailed and accurate knowledge and understanding through the use of appropriate and well-developed examples Demonstrates detailed and accurate knowledge and understanding of the aspects of rebranding and how broadband can assist in the process Demonstrates detailed and accurate knowledge and understanding of other appropriate factors and their contribution to the aspects of rural rebranding Well annotated sketches / diagrams / maps may be used and should be credited	4-5 marks Applies knowledge and understanding to produce a thorough and coherent evaluation that is supported by evidence Applies knowledge and understanding to produce a thorough and coherent assessment of the importance of broadband in different aspects of rural rebranding Balanced assessment of the importance of the other appropriate factors influencing different aspects of rural rebranding
2	2-3	4-6 marks Demonstrates accurate knowledge and understanding through the use of appropriate and partially developed examples Demonstrates accurate knowledge and understanding of the aspects of rebranding and how broadband can assist in the process Demonstrates accurate knowledge and understanding of other appropriate factors and their contribution to the aspects of rebranding Sketches / diagrams / maps may be used and should be credited	2-3 marks Applies knowledge and understanding to produce a coherent but partial evaluation that is supported by some evidence Applies knowledge and understanding to assess the importance of broadband in different aspects of rural rebranding Partial assessment of the importance of the other appropriate factors influencing different aspects of rural rebranding
1	1	1-3 marks Demonstrates limited knowledge and understanding through the use of limited examples Demonstrates limited knowledge and understanding of the aspects of rebranding and how broadband can assist the process Demonstrates limited knowledge and understanding of other appropriate factors and their contribution to the aspects of rural rebranding Basic sketches / diagrams / maps may be used and should be credited	1 mark Applies knowledge and understanding to produce an evaluation with limited coherence and support from some evidence Applies limited knowledge and understanding to simply assess the importance of broadband in different aspects of rural rebranding Limited assessment of the importance of the other appropriate factors influencing different aspects of rural rebranding
	0	0 marks Response not creditworthy or not attempted.	0 marks Response not creditworthy or not attempted.