



GCE A LEVEL MARKING SCHEME

SUMMER 2019

**A LEVEL (NEW)
GEOGRAPHY - COMPONENT 1
A110U10-1**

INTRODUCTION

This marking scheme was used by WJEC for the 2019 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

Section A: Changing Landscapes

Either: Coastal Landscapes

1. (a) (i) Compare the characteristics of the coastal landscapes shown in Figure 1 .	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
					5		5
<p>Indicative content</p> <ul style="list-style-type: none"> • chalk cliffs steeper than clay and sand • chalk cliffs have rockfall whilst clay and sand have slumping • both are high • both have vegetation on mass movement features • chalk fronted by pebbles and clay with sand • chalk have wave cut platform whilst clay has beach <p>Marking guidance</p> <p>Credit any other valid points. Where no comparison is evident, candidates are limited to Band 2.</p>							

Award the marks as follows:	
Band	AO3 (5 marks)
3	<p>4-5 marks</p> <p>Well-developed comparison of cliff types to show differences and/or similarities.</p> <p>Wide use of the resource to support the comparison.</p>
2	<p>2-3 marks</p> <p>Partial comparison of cliff types to show differences and/or similarities.</p> <p>Partial use of the resource to support the comparison.</p>
1	<p>1 mark</p> <p>Limited statements with no use of the resource.</p>
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>

1. (a) (ii) Suggest how lithological factors have influenced the development of the cliffs shown in Figure 1 .	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
			6				6
<p>Indicative content</p> <ul style="list-style-type: none"> lithological factors in the specification are mineral composition, hardness and solubility. Responses can address one or more of these factors development may examine shape of cliffs, types of weathering, mass movement etc mineral composition can impact upon the type and rates of weathering – carbonates are easily dissolved, clay minerals are affected by wetting and drying, iron minerals are affected by oxidation mineral composition impacts upon mass movement – rocks containing clay minerals are more prone to slumping and flows variation in mineral composition within a cliff can lead to mass movement – bands of clay in a cliff are less permeable and build up pore water pressure to encourage slumping hardness can impact on rate of cliff development – rocks that contain hard minerals erode less quickly, rocks with soft bonding minerals are easily eroded cliffs with hard minerals in rocks are vertical solubility of minerals impacts on type of weathering and erosion and can impact on shape of cliffs. <p>Marking guidance</p> <p>Answers that focus solely on geological structure rather than lithology are limited to Band 2.</p>							

Award the marks as follows:	
Band	AO2.1b (6 marks)
3	<p>5-6 marks</p> <p>Well developed examination that develops the link between lithological factors and cliff development.</p> <p>Demonstrates accurate knowledge and understanding using appropriate, and well developed examples. Well annotated sketches / diagrams / maps may also be used and should be credited.</p>
2	<p>3-4 marks</p> <p>Partial examination that develops the link between lithological factors and cliff development.</p> <p>Demonstrates partial knowledge and understanding using appropriate examples. Generalised sketches / diagrams / maps may also be used and should be credited.</p>
1	<p>1-2 marks</p> <p>Limited examination that develops the link between lithological factors and cliff development.</p> <p>Demonstrates limited knowledge and understanding using limited examples. Basic sketches / diagrams / maps may also be used and should be credited.</p>
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>

1. (b) Describe two distinctive features of a geo.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	Total
Award 1 mark for each valid point.	2						2
Indicative content <ul style="list-style-type: none"> linear clefts in a cliff / narrow inlet along lines of weakness have boulder beach at their head. 							

2. (a) (i) Use Figure 2 to analyse changes in wave height for the three mangrove forests.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
					5		5
Indicative content <ul style="list-style-type: none"> wave height reduced with increased distance inland for all forests forest A wave height decreases steadily across width of mangrove forest B has rapid increase across initial 200m then rate of reduction slows forest C has rapid decrease over initial 100m, 100-300m rate slows, at 300m wave height close to 0 which continues to 500m accept comparative comments between forests. 							
Marking guidance Reference must be made to all three forests for full marks to be awarded.							

Award the marks as follows:	
Band	AO3 (5 marks)
3	4-5 marks Well-developed analysis the changes in wave height for all forests with distance inland. Wide use of the resource to support the analysis of changes in wave height with distance inland.
2	2-3 marks Partial analysis of the changes in wave height for forests with distance inland. Partial use of the resource to support the analysis of changes in wave height with distance inland.
1	1 mark Limited statements with no use of the resource.
	0 marks Response not creditworthy or not attempted.

2. (a) (ii) Suggest one way in which the changes in wave height in Mangrove Forest A could impact upon coastal erosion.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
			2				2
<p>Indicative content</p> <ul style="list-style-type: none"> decrease in wave height leads to decrease in wave energy (1) leading to decrease in overall erosion (1) parts of mangrove furthest from low watermark have less erosion (1). <p>Credit other valid approaches.</p>							

2. (b) Explain the formation of either coral reefs or mangrove coastlines.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1		Total
	6						6
<p>Indicative content</p> <p>Coral reefs Answers need to link elements of content below to formation of the reef – how they are related to the development of the reef.</p> <p>Possible approaches may include:</p> <ul style="list-style-type: none"> reference to conditions of formation – depth, light, currents reference to species – corals, algae, sponges reference to types of reefs – fringing, barrier, atoll reference to structure of reefs – reef crest, fore reef, back reef reference to reef composition – live coral, sediment reference to vertical growth of reef, in-line with changing sea levels. <p>Mangrove swamps Answers need to link elements of content below to formation of mangrove swamps – how they are related to the development of the swamp.</p> <p>Possible approaches may include:</p> <ul style="list-style-type: none"> reference to location reference to the conditions of formation – low coasts, intertidal, estuarine, sheltered waters reference to species and vegetation characteristics – halophytic, aerial roots, extensive root system, pioneer vegetation, encourages other vegetation to grow reference to process – slowing water movement, trapping sediment, stabilizing sediment, expansion of mudflats, mixing of fresh and sea water. <p>Credit other valid approaches.</p>							

Award the marks as follows:

Band	AO1 (6 marks)
3	<p style="text-align: center;">5-6 marks</p> <p>Demonstrates detailed and accurate knowledge of the characteristics of coral reefs/mangroves.</p> <p>Demonstrates detailed and accurate understanding of how features of coral reef /mangrove environments are linked to formation.</p> <p>Demonstrates accurate knowledge and understanding using appropriate, and well developed examples.</p> <p>Well annotated sketches / diagrams / maps may also be used and should be credited.</p>
2	<p style="text-align: center;">3-4 marks</p> <p>Demonstrates partial knowledge of the characteristics of coral reefs/mangroves.</p> <p>Demonstrates partial understanding of how features of coral reef /mangrove environments are linked to formation.</p> <p>Demonstrates partial knowledge and understanding using appropriate examples.</p> <p>Generalised ketches / diagrams / maps may also be used and should be credited.</p>
1	<p style="text-align: center;">1-2 marks</p> <p>Demonstrates limited knowledge of the characteristics of coral reefs/mangroves.</p> <p>Demonstrates limited understanding of how features of coral reef /mangrove environments are linked to formation.</p> <p>Demonstrates limited knowledge and understanding using appropriate examples.</p> <p>Basic sketches / diagrams / maps may also be used and should be credited.</p>
	<p style="text-align: center;">0 marks</p> <p>Response not creditworthy or not attempted.</p>

3. Assess the relative importance of longshore drift in the formation of one or more landforms of coastal deposition.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		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 characteristics of depositional coastal landform(s) and the role of longshore drift, and other factors, in their formation. The specification identifies the following landforms as depositional - beaches, spits, bars, tombolos and cusped forelands. Other landforms may be included from 1.1.7 such as dunes, salt marshes and tidal flats.

The content will depend upon the landform(s) chosen and may include:

- Knowledge and understanding of the process of longshore drift
- Knowledge and understanding of the characteristics of identified landform(s) of coastal deposition. This may include such aspects as coastal locations, shape, magnitude
- Knowledge and understanding of how longshore drift contributes to the development of selected landform(s)
- Knowledge and understanding of conditions and process of deposition
- Knowledge and understanding of other processes such as wind, fluvial, estuarine, erosional process, human influence etc.
- Knowledge and understanding of how alternative process contribute to the development of depositional landforms.

AO2

AO2 content encompasses the application of knowledge and understanding to evaluate the importance of longshore drift in the development of selected depositional landform(s). Answers may conclude that longshore drift has a major part or variable influence on the development of selected landform(s). Content may vary according to landform(s) selected but may include:

- An assessment of the relative importance of longshore drift
- An assessment of other processes
- An assessment of changes over time
- An assessment of changes over geographical space
- An assessment of the impacts of human activity in the formation of the chosen coastal landform/s.

Award the marks as follows:

	AO1 (10 marks)	AO2.1c (5 marks)
Band	<i>Demonstrates knowledge and understanding of the characteristics of one or more depositional landform(s), the operation of longshore drift and other process.</i>	<i>Applies knowledge and understanding to assess the importance of longshore drift in the development of depositional landforms.</i>
3	<p>7-10 marks</p> <p>Demonstrates detailed and accurate knowledge and understanding that is relevant to the question.</p> <p>Demonstrates detailed and accurate knowledge and understanding of the link between process and landform.</p> <p>Demonstrates detailed and accurate knowledge and understanding using appropriate, accurate and well-developed examples.</p> <p>Well annotated sketches / diagrams may be used and should be credited.</p>	<p>4-5 marks</p> <p>Applies knowledge and understanding to produce a thorough and coherent assessment that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent assessment of the relative importance of longshore drift and other factors.</p>
2	<p>4-6 marks</p> <p>Demonstrates partial knowledge and understanding that is relevant to the question.</p> <p>Demonstrates partial knowledge and understanding of the link between process and landform.</p> <p>Demonstrates partial knowledge and understanding using appropriate, partially developed examples.</p> <p>Generalised sketches / diagrams may be used and should be credited.</p>	<p>2-3 marks</p> <p>Applies knowledge and understanding to produce a partial assessment that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a partial assessment of the relative importance of longshore drift and other factors.</p>
1	<p>1-3 marks</p> <p>Demonstrates limited knowledge and understanding that is relevant to the question.</p> <p>Demonstrates limited knowledge and understanding of the link between process and landform.</p> <p>Demonstrates limited knowledge and understanding using limited examples.</p> <p>Basic sketches / diagrams may be used and should be credited.</p>	<p>1 mark</p> <p>Applies knowledge and understanding to produce a limited assessment that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a limited assessment of the relative importance of longshore drift and other factors.</p>
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>

4. Examine the importance of different time scales in the formation of one or more coastal landforms.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		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 variety of time scales outlined in the specification over which coastal processes operate – seconds, seasons and millennia. The formation of landforms over one or more of these time scales should be related to processes. The content will depend upon the time scale(s) and landform(s) chosen and may include:

- Knowledge and understanding of the processes operating over a time scale of seconds – mass movement, storm events, wave motion, tides and currents
- Knowledge and understanding of the characteristics of identified landforms that are linked to this scale and their link to process
- Knowledge and understanding of the processes operating over a time scale of seasons – variations in wave type, variations in wind, flood pulses
- Knowledge and understanding of the characteristics of identified landforms that are linked to this scale and their link to process
- Knowledge and understanding of the processes operating over a time scale of millennia – isostatic and eustatic changes
- Knowledge and understanding of the characteristics of identified landforms that are linked to this scale and their link to process.

AO2

AO2 content encompasses the application of knowledge and understanding to evaluate the importance of seasonal processes and their link to landform(s). Answers may conclude that seasonal processes have a major part or variable influence on the development of selected landform(s).

Content may vary according to landform(s) selected but may include:

- An examination of the relative importance of seasonal processes
- An examination of other time scales
- An examination of changes over time
- An examination of changes over geographical space in the formation of the chosen coastal landform/s.

Award the marks as follows:		
	AO1 (10 marks)	AO2.1c (5 marks)
Band	<i>Demonstrates knowledge and understanding of the processes operating at a different time scales and their impact on coastal landforms.</i>	<i>Applies knowledge and understanding to examine the role of different time scales in the formation of one or more landforms.</i>
3	<p>7-10 marks</p> <p>Demonstrates detailed and accurate knowledge and understanding that is relevant to the question.</p> <p>Demonstrates detailed and accurate knowledge and understanding of the link between process and coastal landforms.</p> <p>Demonstrates detailed and accurate knowledge and understanding using appropriate, accurate and well-developed examples.</p> <p>Well annotated sketches / diagrams may be used and should be credited.</p>	<p>4-5 marks</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination of the role of different time scales.</p>
2	<p>4-6 marks</p> <p>Demonstrates partial knowledge and understanding that is relevant to the question.</p> <p>Demonstrates partial knowledge and understanding of the link between process and coastal landform.</p> <p>Demonstrates partial knowledge and understanding using appropriate, partially developed examples.</p> <p>Generalised sketches / diagrams may be used and should be credited.</p>	<p>2-3 marks</p> <p>Applies knowledge and understanding to produce a partial examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a partial examination of the role of different time scales.</p>
1	<p>1-3 marks</p> <p>Demonstrates limited knowledge and understanding that is relevant to the question.</p> <p>Demonstrates limited knowledge and understanding of the link between process and coastal landform.</p> <p>Demonstrates limited knowledge and understanding using limited examples.</p> <p>Basic sketches / diagrams may be used and should be credited.</p>	<p>1 mark</p> <p>Applies knowledge and understanding to produce a limited examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a limited examination of the role of different time scales.</p>
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>

Or: Glaciated Landscapes

5. (a) (i) Compare the characteristics of the two glacial landscapes shown in Figure 3 .	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
					5		5
<p>Indicative content</p> <ul style="list-style-type: none"> • lowland landscape has depositional landforms - kames, kettle holes, moraine • upland landscape has erosional landforms – U-shaped valley, corrie, misfit stream, truncated spur, moraine • upland has steep slopes • lowland has gentle slopes • lowland is hummocky • lowland has linear ridges • comparison of streams. <p>Credit other valid points.</p>							

Award the marks as follows:	
Band	AO3 (5 marks)
3	<p align="center">4-5 marks</p> <p>Well-developed comparison of characteristics of glacial landscapes to show differences and/or similarities.</p> <p>Wide use of the resource to support the comparison.</p>
2	<p align="center">2-3 marks</p> <p>Partial comparison of characteristics of glacial landscapes to show differences and/or similarities.</p> <p>Partial use of the resource to support the comparison.</p>
1	<p align="center">1 mark</p> <p>Limited statements with no use of the resource.</p>
	<p align="center">0 marks</p> <p>Response not creditworthy or not attempted.</p>

5. (a) (ii) Suggest two ways in which the landscapes shown in Figure 3 could influence human activity.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
			6				6
<p>Indicative content</p> <ul style="list-style-type: none"> • provision of materials for construction – sands and gravels • provision of aesthetic landscapes that are used for tourism • provision of landscapes for recreation – skiing • provision of steep sided valleys that could be used for reservoirs • provision of flat valley floors that facilitate transport networks / difficulties in communication • difficulties for agriculture. <p>Credit any other valid points that identify either positive or negative influences.</p> <p>Marking guidance</p> <p>Award maximum of 4 marks if only one way is given but it is well-developed.</p>							

Award the marks as follows:	
Band	AO1 (6 marks)
3	<p>5-6 marks</p> <p>Well-developed examination of the link between landscape and human activity.</p> <p>Demonstrates accurate knowledge and understanding using appropriate, and well-developed examples.</p> <p>Well annotated sketches / diagrams / maps may also be used and should be credited.</p>
2	<p>3-4 marks</p> <p>Partial examination that develops the link between landscape and human activity.</p> <p>Demonstrates partial knowledge and understanding using appropriate examples.</p> <p>Generalised sketches / diagrams / maps may also be used and should be credited.</p>
1	<p>1-2 marks</p> <p>Limited examination that develops the link between landscape and human activity.</p> <p>Demonstrates limited knowledge and understanding using limited examples.</p> <p>Basic sketches / diagrams / maps may also be used and should be credited.</p>
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>

5. (b) Describe two distinctive features of a cold-based glacier.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award 1 mark for each valid point.	2						2
Indicative content <ul style="list-style-type: none"> • cold-based glaciers are frozen to the bedrock all year round • cold-based glaciers tend to move via internal deformation • cold-based glaciers move slowly • meltwater is not prominent. 							

6. (a) (i) Use Figure 3 to analyse changes in the cumulative mass balance of the three glaciers.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
					5		5
Indicative content <ul style="list-style-type: none"> • all decline from 1958-2014 • all fluctuate • South Cascade Glacier has greatest decrease • Wolverine Glacier has smallest decrease • Gulkana Glacier has fewest fluctuations • Wolverine Glacier/South Cascade Glacier are the only ones to return to above original position. <p>Credit any other valid points.</p>							

Award the marks as follows:	
Band	AO3 (5 marks)
3	4-5 marks Well-developed analysis of the changes of mass balance shown. Wide use of the resource to support the analysis of changing mass balance.
2	2-3 marks Partial analysis of changes of mass balance shown. Partial use of the resource to support the analysis of changing mass balance.
1	1 mark Limited statements with no use of the resource.
0	Response not creditworthy or not attempted.

6. (a) (ii) Suggest one reason for the overall change in the Gulkana Glacier.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3			Total
			2					2
<p>Indicative content</p> <ul style="list-style-type: none"> • overall increased amounts of ablation • overall decreased amounts of snowfall • climate change leading to changing conditions. <p>Marking guidance</p> <p>Award 1 mark for identification of reason and 1 mark for developing the link to overall change.</p>								

6. (b) Explain the formation of one fluvioglacial landform.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3			Total
	6							6
<p>Indicative content</p> <p>Answers need to link process to the formation of one landform - the specification includes the following: ice-contact features including eskers, kames, kame terraces and proglacial features including sandurs (outwash plain), varves, kettle holes and kettle lakes.</p> <p>Possible approaches may include:</p> <ul style="list-style-type: none"> • reference to transport and deposition processes operating at the edge of glaciers • reference to characteristics of one ice contact landform such as shape, magnitude, sediment characteristics • reference to the link between process and characteristics of ice contact landform • reference to transport and deposition processes operating in proglacial environments • reference to characteristics of one proglacial landform such as shape, magnitude, sediment characteristics/sorting • reference to the link between process and characteristics of one proglacial landform. <p>Credit other valid approaches.</p>								

Award the marks as follows:	
Band	AO1 (6 marks)
3	5-6 marks
	Demonstrates detailed and accurate knowledge of the characteristics of one fluvioglacial landform.
	Demonstrates detailed and accurate understanding of how features of one fluvioglacial landform are linked to its formation.
	Demonstrates accurate knowledge and understanding using appropriate, and well developed examples.
	Well annotated sketches / diagrams / maps may also be used and should be credited.
2	3-4 marks
	Demonstrates partial knowledge of the characteristics of one fluvioglacial landform.
	Demonstrates partial understanding of how features of one fluvioglacial landform are linked to its formation.
	Demonstrates partial knowledge and understanding using appropriate examples.
	Generalised sketches / diagrams / maps may also be used and should be credited.
1	1-2 marks
	Demonstrates limited knowledge of the characteristics of one fluvioglacial landform.
	Demonstrates limited understanding of how features of one fluvioglacial landform are linked to its formation.
	Demonstrates limited knowledge and understanding using appropriate examples.
	Basic sketches / diagrams / maps may also be used and should be credited.
	0 marks
	Response not creditworthy or not attempted.

7. Assess the relative importance of different erosional processes in the formation of one or more landforms of glacial erosion.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		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 a strategy that may have several structural elements. Credit other valid points not contained in the indicative content.

AO1

AO1 content encompasses knowledge and understanding of the characteristics of different processes of glacial erosion and their role in the formation of landform(s) of glacial erosion. The specification identifies abrasion, plucking and sub- glacial fluvial erosion as the processes of glacial erosion. A range of landforms is identified and is divided by scale into micro, meso and macro. The content will depend upon the landform(s) chosen and may include:

- Knowledge and understanding of the different processes of glacial erosion
- Knowledge and understanding of the characteristics of identified landforms of glacial erosion. This may include such aspects as location, shape, magnitude
- Knowledge and understanding of the processes of glacial erosion that lead to the formation of landform(s).

AO2

AO2 content encompasses the application of knowledge and understanding to evaluate the importance of processes of glacial erosion in the development of glacial landform(s). Answers may conclude that one or more process has a major part or variable influence on the development of selected landform(s). Content may vary according to landform(s) selected but may include:

- An assessment of the relative importance of different processes of erosion and /or other factors which influence these processes
- An assessment of changes over time
- An assessment of changes over geographical space
- An assessment of the formation of landforms at different scales.

Award the marks as follows:		
	AO1 (10 marks)	AO2.1c (5 marks)
Band	<i>Demonstrates knowledge and understanding of the characteristics of one or more landforms of glacial erosion and the operation of different processes of erosion.</i>	<i>Applies knowledge and understanding to assess the importance of different processes of glacial erosion in the development of one or more landforms of glacial erosion.</i>
3	<p>7-10 marks</p> <p>Demonstrates detailed and accurate knowledge and understanding that is relevant to the question.</p> <p>Demonstrates detailed and accurate knowledge and understanding of the link between process and landform.</p> <p>Demonstrates detailed and accurate knowledge and understanding using appropriate, accurate and well-developed examples.</p> <p>Well annotated sketches / diagrams may be used and should be credited.</p>	<p>4-5 marks</p> <p>Applies knowledge and understanding to produce a thorough and coherent assessment that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent assessment of the importance of different processes of glacial erosion.</p>
2	<p>4-6 marks</p> <p>Demonstrates partial knowledge and understanding that is relevant to the question.</p> <p>Demonstrates partial knowledge and understanding of the link between process and landform.</p> <p>Demonstrates partial knowledge and understanding using appropriate, partially developed examples.</p> <p>Generalised sketches / diagrams may be used and should be credited.</p>	<p>2-3 marks</p> <p>Applies knowledge and understanding to produce a partial assessment that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a partial assessment of the importance of different processes of glacial erosion.</p>
1	<p>1-3 marks</p> <p>Demonstrates limited knowledge and understanding that is relevant to the question.</p> <p>Demonstrates limited knowledge and understanding of the link between process and landform.</p> <p>Demonstrates limited knowledge and understanding using limited examples.</p> <p>Basic sketches / diagrams may be used and should be credited.</p>	<p>1 mark</p> <p>Applies knowledge and understanding to produce a limited assessment that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a limited assessment of the importance of different processes of glacial erosion.</p>
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>

8. Examine the importance of frost weathering and mass movement in the development of one or more periglacial landforms.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		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 frost weathering and mass movement and their the role in the formation of periglacial landform(s). The specification identifies a range of periglacial landforms and divides them into those that are formed by ground ice, weathering and mass movement and aeolian and water. The content will depend upon the landform(s) chosen and may include:

- Knowledge and understanding of frost weathering
- Knowledge and understanding of the characteristics of mass movement processes – solifluction/gelifluction, frost creep and rockfall.
- Knowledge and understanding of how frost weathering and mass movement lead to the formation of periglacial landforms such as nivation hollows, blockfields and scree slopes, pro-talus ramparts, solifluction terraces and head deposits
- Knowledge and understanding of other processes such as wind, fluvial, ground ice
- Knowledge and understanding of how alternative processes contribute to the development of periglacial landform(s).

AO2

AO2.1c content encompasses the application of knowledge and understanding to evaluate the importance of frost weathering and mass movement in the development of periglacial landform(s). Answers may conclude that frost weathering and mass movement have a major part or variable influence on the development of selected landform(s). Content may vary according to landform(s) selected but may include:

- An examination of the relative importance of frost weathering and mass movement and /or other factors which influence these processes
- An examination of inter-relationships of frost weathering and mass movement
- An examination of changes over time
- An examination of changes over geographical space in the development of periglacial landform(s).

Award the marks as follows:		
	AO1 (10 marks)	AO2.1c (5 marks)
Band	<i>Demonstrates knowledge and understanding of frost weathering and mass movement and their link to the characteristics of periglacial landform(s).</i>	<i>Applies knowledge and understanding to examine the importance of frost weathering and mass movement in the development of one or more periglacial landform(s).</i>
3	<p>7-10 marks</p> <p>Demonstrates detailed and accurate knowledge and understanding that is relevant to the question.</p> <p>Demonstrates detailed and accurate knowledge and understanding of the link between process and landform.</p> <p>Demonstrates detailed and accurate knowledge and understanding using appropriate, accurate and well-developed examples.</p> <p>Well annotated sketches / diagrams may be used and should be credited.</p>	<p>4-5 marks</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination of the importance of frost weathering and mass movement in the development of one or more periglacial landforms.</p>
2	<p>4-6 marks</p> <p>Demonstrates partial knowledge and understanding that is relevant to the question.</p> <p>Demonstrates partial knowledge and understanding of the link between process and landform.</p> <p>Demonstrates partial knowledge and understanding using appropriate, partially developed examples.</p> <p>Generalised sketches / diagrams may be used and should be credited.</p>	<p>2-3 marks</p> <p>Applies knowledge and understanding to produce a partial examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a partial examination of the importance of frost weathering and mass movement in the development of one or more periglacial landforms.</p>
1	<p>1-3 marks</p> <p>Demonstrates limited knowledge and understanding that is relevant to the question.</p> <p>Demonstrates limited knowledge and understanding of the link between process and landform.</p> <p>Demonstrates limited knowledge and understanding using limited examples.</p> <p>Basic sketches / diagrams may be used and should be credited.</p>	<p>1 mark</p> <p>Applies knowledge and understanding to produce a limited examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a limited examination of the importance of frost weathering and mass movement in the development of one or more periglacial landforms.</p>
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>

Section B: Changing Places

9. (a) Contrast ways in which the Durham Coalfield is represented by Figures 5 and 6 .	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
					5		5
<p>Indicative content</p> <p><i>Advert for Seaham harbour</i></p> <ul style="list-style-type: none"> • positive impression • modern buildings • clean environment • heritage centre • variety of functions • place of opportunity. <p><i>Statistics</i></p> <ul style="list-style-type: none"> • negative impression • outmigration • unemployment • unhealthy. <p>Credit other valid approaches.</p> <p>Marking guidance</p> <p>Responses containing two separate accounts where no contrasts are identified are limited to Band 2.</p>							

Award the marks as follows:	
Band	AO3 (5 marks)
3	<p style="text-align: center;">4-5 marks</p> <p>Well-developed discussion of both images to clearly identify contrasts.</p> <p>Wide use of the resource to support the contrast.</p>
2	<p style="text-align: center;">2-3 marks</p> <p>Partial contrast of both images to show differences.</p> <p>Partial use of the resource to support the contrast.</p>
1	<p style="text-align: center;">1 mark</p> <p>Limited statements with no use of the resource.</p>
	<p style="text-align: center;">0 marks</p> <p>Response not creditworthy or not attempted.</p>

9. (b) Outline how external agencies can help regenerate deindustrialised places such as the Durham Coalfield.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
	8						8
<p>Indicative content</p> <p>Candidates should clearly identify and develop methods that can be used by their selected agency. Content may be stimulated by the resource and focus on the role of local government. Candidates could also examine the methods used by other bodies in regeneration.</p> <p>Possible approaches may include:</p> <ul style="list-style-type: none"> • Government can provide infrastructure, training, buildings, housing, tax incentives, environmental improvements etc • A corporate body can provide housing, partnerships with local authorities, university involvement • A community group can engage in social regeneration with community involvement in decision making, community workshops. <p>Marking guidance</p> <p>Where no external agencies are explicitly identified, response is limited to Band 2.</p>							

Award the marks as follows:	
Band	AO1 (8 marks)
3	<p>6-8 marks</p> <p>Developed understanding of the nature of regeneration and the role played by selected agency.</p> <p>Well developed examination of the impacts of selected agency on regeneration of urban places.</p> <p>Demonstrates accurate knowledge and understanding using appropriate, and well developed examples.</p>
	<p>3-5 marks</p> <p>Partial understanding of the nature of regeneration and the role played by selected agency.</p> <p>Partial examination of the impacts of selected agency on regeneration of urban places.</p> <p>Demonstrates partial knowledge and understanding using appropriate examples.</p>
	<p>1-2 marks</p> <p>Limited understanding of the nature of regeneration and the role played by selected agency.</p> <p>Limited developed examination of the impacts of selected agency on regeneration of urban places.</p> <p>Demonstrates limited knowledge and understanding limited examples.</p>
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>

10. (a) (i) Calculate the values for A, B and C in Figure 7 . Write the values for A, B and C in your answer booklet.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Allow 1 mark for each correct calculation.					3		3
<p>A = 2.5 (accept this answer only)</p> <p>B = 3.5</p> <p>C = 12.25</p> <p>Marking guidance</p> <p>Allow Error Carried Forward. Credit correct calculations in B and C where A is not given as 2.5.</p>							

10. (a) (ii) Use Figure 8 to state the statistical significance of the correlation.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
					2		2
99% confident that it is significant [1], reject at 99.9 % [1].							

10. (b) Suggest why the demand for fast internet speed varies between rural communities.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
			8				8
<p>Indicative content</p> <p>Candidates should clearly identify and develop the reasons why demand for fast internet speed varies between rural communities. Broadband increases communication and breaks barriers of distance and time. The reasons may be economic, demographic and social.</p> <ul style="list-style-type: none"> • Variation in population of rural communities – hamlets to market towns • Variation in economic structure of rural communities – some are economically viable with tourism and small businesses, others in areas of rural decline • Variation in the wealth of rural communities – commuter villages and areas of rural decline • Variation in the age structure of rural communities – ageing communities have less demand or alternatively are becoming more demanding as social benefits are realised • Variation in the demand for services like shopping, banking and entertainment – may reflect the access to service in the community • Variation in the educational profile of rural communities – higher the level of education the more demand • Variation in the ‘telecommuting structure’ of rural communities. <p>Marking guidance</p> <p>Where responses do not address variation, responses should be limited to Band 2.</p>							

Award the marks as follows:	
Band	AO2.1b (8 marks)
3	<p style="text-align: center;">6-8 marks</p> <p>Developed understanding of the factors that influence variation in demand for broadband between rural communities.</p> <p>Demonstrates accurate knowledge and understanding using appropriate, and well developed examples.</p>
2	<p style="text-align: center;">3-5 marks</p> <p>Partial understanding of the factors that influence variation in demand for broadband between rural communities.</p> <p>Demonstrates partial knowledge and understanding using appropriate and partially developed examples.</p>
1	<p style="text-align: center;">1-2 marks</p> <p>Limited understanding of the factors that influence variation in demand for broadband between rural communities.</p> <p>Demonstrates limited knowledge and understanding using examples.</p>
	<p style="text-align: center;">0 marks</p> <p>Response not creditworthy or not attempted.</p>

11. Assess the severity of threats to retailing in central urban places.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		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 threats to retailing in central urban areas. These threats arise from a number of recent changes that have taken place in the retail environment. Candidates could address:

- Knowledge and understanding of the threat caused by the growth of out of town retail centres
- Knowledge and understanding of the threat caused by the growth of technology and internet shopping
- Knowledge and understanding of the threat caused by increased traffic and congestion in central urban areas
- Knowledge and understanding of the threat caused by the growth of entertainment in central urban areas
- Knowledge and understanding of the threat caused by downturns in the economy and the impact on disposable income
- Knowledge and understanding of the threat caused by inability of retail to pay business rates
- Knowledge and understanding of the threat caused by competition from the growth of shopping malls in separate areas of large CBDs – e.g. St David's 2 in Cardiff or Bullring in Birmingham
- Knowledge and understanding of the threat caused by laissez faire political approaches.

AO2

AO2 content encompasses the application of knowledge and understanding to evaluate the severity of different threats. Answers may review the level of threat separately or together in the context of a small number of central urban areas. Content may vary according to threats selected but may include:

- An assessment of the relative importance of threats to retailing in central urban areas
- An assessment of changes in threats to retailing in central urban areas over time
- An assessment of differences in threats to retailing in central urban areas over geographical space.

Award the marks as follows:		
	AO1 (10 marks)	AO2.1c (5 marks)
Band	<i>Demonstrates knowledge and understanding of the threats to retailing in central urban areas.</i>	<i>Applies knowledge and understanding to assess the severity of threats to retailing in central urban places.</i>
3	<p>7-10 marks</p> <p>Demonstrates detailed and accurate knowledge and understanding that is relevant to the question.</p> <p>Demonstrates detailed and accurate knowledge and understanding of the threats to retailing in central urban areas.</p> <p>Demonstrates detailed and accurate knowledge and understanding using appropriate, accurate and well-developed examples.</p> <p>Well annotated sketches / diagrams may be used and should be credited.</p>	<p>4-5 marks</p> <p>Applies knowledge and understanding to construct well-developed discussion that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent assessment of the severity of threats to retailing in central urban places.</p>
2	<p>4-6 marks</p> <p>Demonstrates accurate knowledge and understanding that is relevant to the question.</p> <p>Demonstrates partial knowledge and understanding of the impact of the threats to retailing in central urban areas.</p> <p>Demonstrates accurate knowledge and understanding using examples.</p> <p>Sketches / diagrams may be used and should be credited.</p>	<p>2-3 marks</p> <p>Applies knowledge and understanding to construct a partial discussion that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a partial assessment of the severity of threats to retailing in central urban places.</p>
1	<p>1-3 marks</p> <p>Demonstrates limited knowledge and understanding that is relevant to the question.</p> <p>Demonstrates limited knowledge and understanding of the threats to retailing in central urban areas.</p> <p>Demonstrates limited knowledge and understanding using limited examples</p> <p>Basic sketches / diagrams may be used and should be credited.</p>	<p>1 mark</p> <p>Applies knowledge and understanding to construct a limited discussion that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a limited assessment of the severity of threats to retailing in central urban places.</p>
	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>	<p>0 marks</p> <p>Response not creditworthy or not attempted.</p>

12. Examine the role of changing flows of money and investment in shaping the characteristics of one or more places.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		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 how changing flows of money and investment shape the characteristics of places. Candidates should spend some time addressing the characteristics of the selected place(s). This could involve an outline of the economic, demographic, social and environmental character of place and could be set in a rural, urban or peri-urban context. There should also be some discussion of the changing flows of money and investment which may come from a variety of sources including multinational companies, national, regional and local government, non-government institutions (eg universities, private equity funds) and individuals. These monies and investments should be linked to the character of place. Candidates could address:

- Economic character of place(s) – industrial structure, growth and/or decline of industry, service availability
- Demographic character of place – population decline or growth, age structure of population
- Social character of place - socio-economic structure of population
- Environmental character of place – dereliction, redevelopment improvements
- Flows of money and investment as a result of globalisation to cause decline of manufacturing or increase of tertiary industry
- Flows of money and investment as a result of government investment – improved transport systems, telecommunications infrastructure, aid to set up industry in the form of grants etc
- Flows of money and investment as a result of non-government investment – eg investment by equity funds in science parks, investment via location of university R&D departments
- Flows of money and investment as a result of individuals – movement of wealthier population to gentrified areas.
- The role of other factors in shaping the character of place – changing technology, changes in society via changing lifestyles eg entertainment/cafe quarters, migration.

AO2

AO2 content encompasses the application of knowledge and understanding to evaluate the role of money and investment and other factors. Content may vary according to case studies selected but may include:

- An examination of the relative importance of money and investment in shaping the characteristics of place(s)
- An examination of the relative importance of other factors in shaping the characteristics of place(s)
- An examination of changes in the relative importance of money and investment in shaping the characteristics of place(s) over time
- An examination of differences in the relative importance of money and investment in shaping the characteristics of place(s) over geographical space.

Award the marks as follows:		
	AO1 (10 marks)	AO2.1c (5 marks)
Band	<i>Demonstrates knowledge and understanding of the characteristics of one or more places, the flows of money and investment and other factors that influence the character of place.</i>	<i>Applies knowledge and understanding to examine the role of changing flows of money and investment in shaping the characteristics of one or more places.</i>
3	<p>7-10 marks</p> <p>Demonstrates detailed and accurate knowledge and understanding that is relevant to the question.</p> <p>Demonstrates detailed and accurate knowledge and understanding of the characteristics of one or more places, the flows of money and investment and other factors that influence the character of place.</p> <p>Demonstrates detailed and accurate knowledge and understanding using appropriate, accurate and well-developed examples.</p> <p>Well annotated sketches / diagrams may be used and should be credited.</p>	<p>4-5 marks</p> <p>Applies knowledge and understanding to construct a well-developed examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination of to the role of changing flows of money and investment in shaping the characteristics of one or more places.</p>
2	<p>4-6 marks</p> <p>Demonstrates accurate knowledge and understanding that is relevant to the question.</p> <p>Demonstrates partial knowledge and understanding of the characteristics of one or more places, the flows of money and investment and other factors that influence the character of place.</p> <p>Demonstrates partial knowledge and understanding using examples.</p> <p>Sketches / diagrams may be used and should be credited.</p>	<p>2-3 marks</p> <p>Applies knowledge and understanding to construct a partial examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a partial examination of the role of changing flows of money and investment in shaping the characteristics of one or more places.</p>
1	<p>1-3 marks</p> <p>Demonstrates limited knowledge and understanding that is relevant to the question.</p> <p>Demonstrates limited knowledge and understanding of the characteristics of one or more places, the flows of money and investment and other factors that influence the character of place.</p> <p>Demonstrates limited knowledge and understanding using limited examples Basic sketches / diagrams may be used and should be credited.</p>	<p>1 mark</p> <p>Applies knowledge and understanding to construct a limited examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a limited examination of the factors that influence the location of to the role of changing flows of money and investment in shaping the characteristics of one or more places.</p>
	<p>0 marks</p> <p>Response not creditworthy or attempted.</p>	<p>0 marks</p> <p>Response not creditworthy or attempted.</p>