



GCE A LEVEL MARKING SCHEME

AUTUMN 2020

**A LEVEL
GEOGRAPHY – COMPONENT 1
A110U10-1**

INTRODUCTION

This marking scheme was used by WJEC for the 2020 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.

GCE A LEVEL GEOGRAPHY
AUTUMN 2020 MARK SCHEME

Section A: Changing Landscapes

Either: Coastal Landscapes

1. (a) (i) Use Figure 1 to analyse the pattern of wave orientation.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
					5		5
<p>Indicative content</p> <ul style="list-style-type: none"> • Waves are most frequently from westerly direction • Largest number of waves from west • Significant/second most frequent number of waves from south south east • Waves mainly from two directions • Few waves from north and east • Use of data to support analysis. <p>Accept other valid contrasts.</p>							

Award the marks as follows:	
Band	AO3 (5 marks)
3	4-5 marks Well-developed analysis of the pattern of wave orientation. Reference to overall pattern Wide use of the resource to support the analysis of the contrasts in pattern of wave orientation.
2	2-3 marks Partial analysis of the pattern of wave orientation. Series of isolated comments. Partial use of the resource to support the contrasts in pattern of wave orientation.
1	1 mark Limited statements with no use of the resource.
	0 marks Response not creditworthy or not attempted.

1. (a) (ii) Suggest how the pattern of wave orientation may influence sediment transport at Goosgar.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award 1 mark for suggestion and 1 mark for development referring to movement			2				2
<p>Indicative content</p> <ul style="list-style-type: none"> • Sediment moves mainly west to east • Secondary movement from s.s east/s.east • Reference to development of landform – spits/recurved spits. <p>Credit other valid approaches.</p>							

1. (b) Explain how reduced energy levels can result in sediment sorting.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1		Total
	6						6
<p>Indicative content</p> <p>Candidates should clearly identify and explain the link between the reduction of energy levels, transport and sorting of sediment.</p> <p>Possible approaches may include:</p> <ul style="list-style-type: none"> • Reduction of energy levels leads to inability of sea/waves/currents to transport larger sediment particles • Deposition of larger sediments as energy is reduced • Continued transport of finer materials by reduced energy transport modes • Sorting of sediment along coasts by longshore drift • Sorting of sediment on beaches by waves of varying energy • Sorting of sediment in lagoons by reduced energy caused by tides and river currents. <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 reduction of energy levels.
	Demonstrates detailed and accurate understanding of how reduction of energy leads to sediment sorting.
	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 energy levels.
	Demonstrates partial understanding of how reduction of energy leads to sediment sorting.
	Demonstrates mostly accurate knowledge and understanding using appropriate, and well developed examples.
	Generalised sketches / diagrams / maps may also be used and should be credited.
1	1-2 marks
	Demonstrates limited knowledge of energy levels.
	Demonstrates limited understanding of how reduction of energy leads to sediment sorting.
	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.

2. (a) (i) Calculate the median value of shoreline retreat for Covehithe. Show your working.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award 1 mark for correct answer plus 1 mark for correct working					2		2
2. (a) (ii) Identify the modal value for shoreline retreat for Covehithe.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award 1 mark for answer					1		1
2. (a) (iii) Describe how the rates of coastal change differ between Orfordness and Covehithe.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award 1 mark for each correct point					2		2
Indicative content							
(a) (i)	– (minus) 2.7: -0.1/-1.8/-2.1/-2.1/-2.2/-2.7/-3.1/-3.4/-3.5/-3.8/-5.7						
(a) (ii)	– (minus) 2.1						
(a) (iii)	higher amounts of retreat at Covehithe [1] Orfordness has seaward build up as well as retreat [1].						

2. (b) Suggest how sub-aerial processes could account for the differences in shoreline retreat shown in Figure 2 .	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
		6					6

Indicative content

Candidates should show understanding of how sub-aerial processes could account for the differences in shoreline retreat.

Possible approaches may include:

- Knowledge and understanding of weathering processes [physical/chemical/biotic] and impact on shoreline retreat – rates of weathering leading to variation in retreat
- Knowledge and understanding of mass movement processes [landslides/slumps/rockfall] and impact on shoreline retreat – rates and types of mass movement leading to variation in retreat
- Knowledge and understanding of possible differences between the 2 sites that impact upon sub-aerial processes and shoreline retreat – geology, removal of material from base of cliffs
- Linkage of factor and process to variations shown in Figure 2.

Credit other valid approaches.

Award the marks as follows:

Band	AO2.1a (6 marks)
3	<p>5-6 marks</p> <p>Well developed examination that identifies valid sub-aerial processes, developed explanation of link to variation in shoreline retreat with reference to Figure 2.</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 identifies valid sub-aerial processes, partial explanation of link to variation in shoreline retreat with partial reference to Figure 2.</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 identifies valid sub-aerial processes, limited explanation of link to variation in shoreline retreat with limited reference to Figure 2.</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>

2. (c) Outline the seasonal variation in destructive waves.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3.1	AO3.2	Total
Award 1 mark per correct point	2						2
<p>Indicative content</p> <p>Credit two descriptive points that outline seasonal variation or one mark for a descriptive point with further one mark for development.</p> <ul style="list-style-type: none"> • More during the winter – storms bring waves with more energy • More during periods of storms • Weather patterns – fewer in anticyclonic conditions. <p>Credit any other valid approaches.</p>							

3. Examine the role played by biotic processes in the formation of coastal landforms.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
	10			5			15

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks.

AO1

AO1 content encompasses knowledge and understanding of the role played by biotic processes in the formation of landforms in coastal environments. The content will depend upon the landform(s) chosen and may include:

- knowledge and understanding of the biotic processes that lead to the development of coral reefs – environmental conditions required for coral growth, fixing of CO₂ in the body of the coral, CO₂ sediments, character of the reefs
- knowledge and understanding of the biotic processes that produce mangrove coasts – environmental conditions, sediment deposition, character of mangrove coasts
- knowledge and understanding of the biotic processes that produce sand dunes – environmental conditions, role of vegetation in deposition of sediment, character of dune coasts
- knowledge and understanding of the biotic processes that produce salt marshes – environmental conditions, role of vegetation in deposition, character of marshes
- knowledge and understanding of other processes that are important in the production of coastal landscapes related to biotic processes – aeolian, riverine, tidal, longshore drift etc.

AO2

AO2.1c content encompasses the application of knowledge and understanding to evaluate the relative importance of geology in the development of selected erosional landforms. A conclusion may be drawn in the context of the landform(s). Candidates may reach the conclusion that geology plays a variable part in the development of the landform(s) but a conclusion is not necessary in order to reach the top of Band 3. The content may vary according to the landform but may include an examination of:

- the importance of factors such as wave characteristics (such as fetch, wave type and wave orientation)
- the importance of erosional processes or sub-aerial processes
- the importance of time scales in the continuing development of the landform
- the importance of human intervention such as management strategies and sea level rise.

Credit other valid points not contained in the indicative content.

Award the marks as follows:		
	AO1 (10 marks)	AO2.1c (5 marks)
Band	<i>Demonstrates knowledge and understanding of the role played by role played by biotic processes in the formation of coastal landforms.</i>	<i>Applies knowledge and understanding to appraise through an examination of the relative role played by biotic processes in the development of coastal 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 role played by biotic processes and other factors in landform development.</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 examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination of the relative importance of biotic processes and other factors in the development of coastal 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 role played by biotic processes and other factors in landform development.</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 relative importance of biotic processes and other factors in the development of coastal 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 role played by biotic processes and other factors in landform development.</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 examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a limited examination of the relative importance of biotic processes and other factors in the development of coastal 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>

4. Examine the view that the impacts of human activity on coastal landscape systems are always negative.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
	10			5			15

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks.

AO1

AO1 content encompasses knowledge and understanding of positive and negative impacts of human activity on coastal landscape systems. The content may include:

- knowledge and understanding of character of human activity – building of coastal defenses, urban development, industrial development, port development/dredging, climate change/sea level change
- knowledge and understanding of the positive impacts on coastal landscape systems – decrease in coastal erosion, protection of beaches, preservation of coastal ecosystems, preservation of impressive landscapes
- knowledge and understanding of negative impacts on coastal landscape systems – coastal defenses may increase erosion in other areas, destruction of coastal ecosystems, disruption of sediment cells, increased erosion via sea level change.

AO2

AO2.1c content encompasses the application of knowledge and understanding to discuss the view that human activity has a more negative than positive impact. A conclusion may be drawn in the context of the impacts chosen but a conclusion is not necessary in order to reach the top of Band 3. The content may vary according to the coastal landscape system(s) chosen but may include an examination of:

- the extent to which human activity is more negative than positive
- geographical variations of negative and positive impacts
- temporal variations of negative and positive impacts
- the extent to which perspectives of stakeholders vary.

Credit other valid points not contained in the indicative content.

Award the marks as follows:		
	AO1 (10 marks)	AO2.1c (5 marks)
Band	<i>Demonstrates knowledge and understanding of the impacts of human activity on coastal landscape systems.</i>	<i>Applies knowledge and understanding to appraise through examining the impacts of human activity on coastal landscape systems.</i>
3	<p>7-10 marks</p> <p>Demonstrates detailed and accurate knowledge and understanding of human activity and positive/negative impacts.</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 examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination of human activity and positive/negative impacts on coastal landscape systems.</p>
2	<p>4-6 marks</p> <p>Demonstrates partial knowledge and understanding of human activity and positive/negative impacts.</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 human activity and positive/negative impacts on coastal landscape systems.</p>
1	<p>1-3 marks</p> <p>Demonstrates limited knowledge and understanding of human activity and positive/negative impacts.</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 examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a limited examination of human activity and positive/negative impacts on coastal landscape systems.</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) Use Figure 3 to analyse the pattern of cirque orientation.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	Total
					5	5
<p>Indicative content</p> <ul style="list-style-type: none"> • most frequent orientation is facing NE • mostly orientated between NNW and NE • small group to E • few orientated to S or W • use of data to support analysis. <p>Credit any other valid approaches.</p>						

Award the marks as follows:	
Band	AO3 (5 marks)
3	<p style="text-align: center;">4-5 marks</p> <p>Well developed analysis of the pattern of cirque orientation. A reference to the overall pattern is made.</p> <p>Wide use of the resource to support the analysis of the contrasts in pattern of cirque orientation.</p>
2	<p style="text-align: center;">2-3 marks</p> <p>Partial analysis of the pattern of cirque orientation. This may be a series of isolated comments.</p> <p>Partial use of the resource to support the contrasts in pattern of cirque orientation.</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>

5. (a) (ii) Suggest how orientation may influence the size of a cirque.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	Total
Award 1 mark for suggestion and 1 mark for development.			2			2
<p>Indicative content</p> <ul style="list-style-type: none"> • Influence of orientation on climatic characteristics – extension of periods of frozen water in N/NE facing cirques. Credit opposite. • Orientation relative to prevailing winds – brings in supplies of snow. <p>Credit any other valid approaches.</p>						

5. (b) Outline two differences between a cirque glacier and a valley glacier.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
	6						6

Indicative content

Candidates should clearly identify the characteristics of both glaciers and outline the differences.

AO1

Possible approaches may include:

- reference to size – valley glaciers larger
- reference to direction of flow – unidirectional v rotational
- reference to shape – linear v circular
- reference to location – basin v valley
- reference to temperature regimes.

Credit any other valid approaches.

Award the marks as follows:

Band	AO1 (6 marks)
3	5-6 marks
	Well developed outline of two differences between cirque and valley glacier. Outline to give summary of differences with some descriptive/explanatory development.
	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
	Partial outline of two differences between cirque and valley glacier. Outline to give summary of differences with some descriptive/explanatory development.
	Partial knowledge and understanding using appropriate, and well developed examples. Generalised sketches / diagrams / maps may also be used and should be credited. Max. 4 marks if only one difference given and well developed.
1	1-2 marks
	Limited outline of two differences between cirque and valley glacier. Outline to give summary of differences with some descriptive/explanatory development.
	Limited knowledge and understanding using limited examples. Basic sketches / diagrams / maps may also be used and should be credited.
	0 marks
	Response not creditworthy or not attempted.

6. (a) (i) Calculate the median value of active layer change for Alaska. Show your working.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award 1 mark					2		2
6. (a) (ii) Identify the modal value of active layer change for Alaska.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award 1 mark for correct answer					1		1
6. (a) (iii) Describe how changes in the depth of the active layer differ between East Siberia and Alaska.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award 1 mark for each correct point					2		2
Indicative content							
(a)	(i)	0.3: depth increases by 0.1/0.1/0.1/0.2/0.2/ 0.3 /0.4/0.5/0.6/1.6/5.6					
	(ii)	0.1					
	(iii)	higher amounts of active layer depth increase in Alaska [1] East Siberia has active layer depth decreasing as well as increasing [1].					

6. (b) Suggest how changes to the depth of the active layer in Alaska may influence the development of periglacial features.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
		6					6

Indicative content

Candidates should show understanding of how the depth of thaw can influence periglacial process and products.

Possible approaches may include:

- Reference to solifluction processes – depth of active layer
- Reference to ice wedges
- Reference to frost creep
- Reference to solifluction terraces and head deposits
- Reference to depth of ice wedges.

Credit other valid approaches.

Award the marks as follows:

Band	AO2.1a (6 marks)
3	<p>5-6 marks</p> <p>Well developed examination that develops the link between thaw depth, periglacial processes and products.</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 thaw depth, periglacial processes and products.</p> <p>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 thaw depth, periglacial processes and products.</p> <p>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>

6. (c) Describe two characteristics of loess.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award 1 mark for each valid point	2						2
<p>Indicative content</p> <ul style="list-style-type: none"> • Silt size particles • Transported by wind • Product of abrasion • Loosely packed • Often found in dune formations. <p>Credit any other valid approaches.</p>							

7. Examine the role of different time scales in the formation of one or more glacial landforms.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
Award 1 mark for each valid point	10			5			15

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks.

AO1

AO1 content encompasses knowledge and understanding of different time scales (from seconds to millenia) and their impact on glacial landforms. Landforms of glacial erosion, glacial deposition and periglacial landforms are acceptable. The time scale content will depend upon the landform(s) chosen and may include knowledge and understanding of:

- the formation of landscapes over millenia – the development of landforms by processes to form landforms such as glacial troughs, cirques, hanging valleys, roche moutonnees etc.
- the formation of landscapes over historical time – the development of landforms by processes to form landforms such as terminal moraines, eskers, nivation hollows, sandurs etc.
- the formation of landscapes over years/decades – the development of landforms by processes to form landforms such as scree slopes, recessional moraines, varves
- the formation of landscapes over seasons – the development of landforms by processes to form landforms such as avalanches, outwash channels.

AO2

AO2.1c content encompasses the application of knowledge and understanding to evaluate the importance of time scales in the formation of glacial landforms. A conclusion may be drawn but is not necessary in order to reach the top of Band 3. The content may vary according to the time scales chosen but may include an examination of:

- the relative importance of time scale – there may be an examination of the role of different time scales within a glaciated environment. For example, an examination of time in the formation of moraines and varves within a proglacial environment. Or, in a highland glaciated environment, an examination of time in the production of glacial troughs and post glacial scree.
- the relative importance of time in the operation of glacial processes – an examination of speed in which different processes operate e.g. the relative time taken to achieve glacial abrasion against freeze thaw weathering
- the relative importance of time in glacial erosion and deposition
- the relative importance of time in upland and lowland glaciated environments
- the relative importance of time operating with different factors influencing glacial processes e.g. rock jointing, ice thickness.

Credit other valid points not contained in the indicative content.

Award the marks as follows:		
	AO1 (10 marks)	AO2.1c (5 marks)
Band	<i>Demonstrates knowledge and understanding of the impact of different time scales in the formation of one or more glacial landforms</i>	<i>Applies knowledge and understanding to appraise through an examination of the relative importance of different time scales in the formation of one or more glacial 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 importance of different time scales in the formation of one or more glacial 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 construct well-developed examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination of the importance of different time scales in the formation of one or more glacial 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 importance of different time scales in the formation of one or more glacial landforms.</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 importance of different time scales in the formation of one or more glacial 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 importance of different time scales in the formation of one or more glacial landforms.</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 examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a limited examination of the importance of different time scales in the formation of one or more glacial 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>

8. Examine the view that the interaction between glacial processes and human activity is always negative.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
	10			5			15

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks.

AO1

AO1 content encompasses knowledge and understanding of the negative and positive interactions between glacial processes and human activity. This may include knowledge and understanding of:

- the positive interaction between human activity and fluvio-glacial processes in the form of water supply
- the positive interaction between human activity and glacial processes in the form of provision of good agricultural land, sites for dams, sediments for building, sites for leisure
- the negative interaction between human activity and fluvio-glacial processes in the form of GLOFs
- the negative interaction between human activity and glacial processes in the form of potential landslides and avalanches
- the negative interaction between human activity and periglacial glacial processes in the form of permafrost melting.

AO2

AO2.1c content encompasses the application of knowledge and understanding to examine the extent of the negative/positive character of interactions between glacial processes and human activity. A conclusion may be drawn but is not necessary in order to reach the top of Band 3. The content may vary but may include an examination of:

- whether positives or negatives are more important/significant
- the spatial extent of positives or negatives
- temporal variations in the importance of positives or negatives
- economic, social and environmental aspects of positives or negatives.

Credit other valid points not contained in the indicative content.

Award the marks as follows:		
	AO1 (10 marks)	AO2.1c (5 marks)
Band	<i>Demonstrates knowledge and understanding of negative and positive interaction between glacial process and human activity.</i>	<i>Applies knowledge and understanding to examine the negative/positive character of interaction between glacial process and human activity.</i>
3	<p>7-10 marks</p> <p>Demonstrates detailed and accurate knowledge and understanding of the interaction between glacial process and human activity.</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 examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination of the interaction between glacial process and human activity.</p>
2	<p>4-6 marks</p> <p>Demonstrates partial knowledge and understanding of the interaction between glacial process and human activity.</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 some evidence.</p> <p>Applies knowledge and understanding to produce partial examination of the interaction between glacial process and human activity.</p>
1	<p>1-3 marks</p> <p>Demonstrates limited knowledge and understanding of the interaction between glacial process and human activity.</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 examination.</p> <p>Applies knowledge and understanding to produce a limited examination of the interaction between glacial process and human activity.</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) Use Figure 5 to compare the structure of the creative industry in Penzance and Reading.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
					5		5
<p>Indicative content</p> <ul style="list-style-type: none"> • Software and digital important in both • Penzance has advertising as least important whilst Reading has publishing as least important • Penzance have music and performing arts as most important whilst Reading has digital as most important • Penzance has more focus on “arts” whilst Reading more technological • Penzance shows more even distribution across sub-sectors. <p>Credit other valid approaches.</p>							

Award the marks as follows:	
Band	AO3 (5 marks)
3	<p style="text-align: center;">4-5 marks</p> <p>Well-developed comparison of structure. Reference to overall pattern is made.</p> <p>Wide use of the resource to support comparison.</p>
2	<p style="text-align: center;">2-3 marks</p> <p>Partial comparison of structure. May be a series of isolated comments.</p> <p>Partial use of the resource to support comparison.</p>
1	<p style="text-align: center;">1 mark</p> <p>Limited statements with no use of the resource to support comparison.</p>
	<p style="text-align: center;">0 marks</p> <p>Response not creditworthy or not attempted.</p>

9. (b) Describe two locational factors that may encourage the growth of quaternary industry clusters.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
	8						8
Indicative content							
Candidates should clearly identify and develop two locational factors.							
Possible approaches may include:							
<ul style="list-style-type: none"> • Proximity to universities and research institutes – provides supply of skilled labour, links to research, innovative population in university towns, specialist hubs • Government support – investment in infrastructure, government contracts, local government initiatives • Planning regulations – planning permission given • Infrastructure – roads/airports, access to markets, ease of travel for labour, access for global experts. 							
Credit other valid approaches.							

Award the marks as follows:	
Band	AO1 (8 marks)
3	<p style="text-align: center;">6-8 marks</p> <p>Well developed outline of two valid locational factors.</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;">3-5 marks</p> <p>Partial outline of two valid locational factors.</p> <p>Partial knowledge and understanding using appropriate examples.</p> <p>Generalised sketches / diagrams / maps may also be used and should be credited.</p> <p>Max. 5 marks if only one factor given and well developed.</p>
1	<p style="text-align: center;">1-2 marks</p> <p>Limited outline of two valid locational factors.</p> <p>Limited knowledge and understanding using limited 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>

10. (a) Use Figure 6 to describe the changing pattern of manufacturing employment.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
					5		5
Indicative content <ul style="list-style-type: none"> • Large decline in central areas • Mostly/overall decline • Decline in south east • Largest growth in centre/close to bay/docks • Most growth in suburbs. <p>Credit other valid approaches.</p>							

Award the marks as follows:	
Band	AO3 (5 marks)
3	<p style="text-align: center;">4-5 marks</p> <p>Well-developed description of the changes in manufacturing employment. Reference to overall pattern.</p> <p>Wide use of the resource to support the description of changes in manufacturing employment.</p>
2	<p style="text-align: center;">2-3 marks</p> <p>Partial description of the changes in manufacturing employment. Series of isolated statements.</p> <p>Partial use of the resource to support the description of changes in manufacturing employment.</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>

10. (b) Suggest two consequences of the decline in manufacturing employment for people living in Melbourne.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
			8				8
<p>Indicative content</p> <p>Possible approaches may include:</p> <ul style="list-style-type: none"> • Lack of employment opportunities – existing population has skills based on manufacturing • Wage decreases – job losses or transfer to less secure employment • Stress – pressures to support families etc • Cycle/spiral of decline • Social exclusion • Changing employment structure that shows a shift to services. <p>Credit other valid approaches.</p>							

Award the marks as follows:	
Band	AO2.1b (8 marks)
3	<p>6-8 marks</p> <p>Clear understanding of two ways in which the decline in manufacturing employment may affect the lives of people.</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>
	<p>3-5 marks</p> <p>Partial understanding of two ways in which the decline in manufacturing employment may affect the lives of people.</p> <p>Partial knowledge and understanding using appropriate examples.</p> <p>Generalised sketches / diagrams / maps may also be used and should be credited.</p> <p>Max. top Band 2 if only one consequence discussed in a developed manner.</p>
	<p>1-2 marks</p> <p>Limited understanding of two ways in which the decline in manufacturing employment may affect the lives of people.</p> <p>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>

11. Examine the view that gentrification benefits both rich and poor residents.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
	10			5			15

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks.

AO1

AO1 content encompasses knowledge and understanding of the processes and consequences of gentrification. The question refers to the positive and negative aspects of gentrification and how these impact on different parts of society.

The content will depend upon the policies chosen and may include knowledge and understanding of:

- the process of gentrification – the influx of urban pioneers, renovation of buildings by individuals, developers converting buildings for sale. Influx of new people, development of services, economic development
- the advantages of gentrification – environmental improvement, educational improvements, job creation in building, service and high-tech industries, improved service provision
- the disadvantages of gentrification – increase in house prices, changing culture of the neighbourhood, social marginalization, small businesses cannot afford high rents, displacement of poorer residents.

AO2

AO2.1c content encompasses the application of knowledge and understanding to discuss the impacts of gentrification on different parts of society. A conclusion may be drawn but is not necessary in order to reach the top of Band 3. Content may vary according to examples selected but may include reference to:

- the impacts on rich and poor within an area that has been gentrified
- changes in the impacts over time through the process of gentrification
- differences in impacts over geographical space.

Credit other valid points not contained in the indicative content.

Award the marks as follows:		
	AO1 (10 marks)	AO2.1c (5 marks)
Band	<i>Demonstrates knowledge and understanding of the impacts of gentrification on different stakeholders.</i>	<i>Applies knowledge and understanding to appraise through an examination of the extent to which gentrification benefits both rich and poor residents.</i>
3	<p>7-10 marks Demonstrates detailed and accurate knowledge and understanding of the process and impacts of gentrification.</p> <p>Demonstrates detailed and accurate knowledge and understanding through the use of appropriate and well-developed examples.</p> <p>Well-annotated sketches / diagrams may be used and should be credited.</p>	<p>4-5 marks 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 impacts of gentrification on different groups in society.</p>
2	<p>4-6 marks Demonstrates partial knowledge and understanding of the process and impacts of gentrification.</p> <p>Demonstrates partial knowledge and understanding through the use of appropriate and partially developed examples.</p> <p>Generalised sketches / diagrams may be used and should be credited.</p>	<p>2-3 marks Applies knowledge and understanding to produce a coherent but partial examination that is supported by some evidence.</p> <p>Applies knowledge and understanding to produce a partial examination of the impacts of gentrification on different groups in society.</p>
1	<p>1-3 marks Demonstrates limited knowledge and understanding of the process and impacts of gentrification.</p> <p>Demonstrates limited knowledge and understanding through the use of appropriate and limited examples.</p> <p>Basic sketches / diagrams may be used and should be credited.</p>	<p>1 mark Applies knowledge and understanding to produce an examination with limited coherence and support from some evidence.</p> <p>Applies knowledge and understanding to produce a limited examination of the impacts of gentrification on different groups in society.</p>
	<p>0 marks Response not creditworthy or not attempted.</p>	<p>0 marks Response not creditworthy or not attempted.</p>

12. Examine the roles played by local groups and external agencies in the rebranding of one or more rural places.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		Total
	10			5			15

Indicative content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks.

AO1

AO1 content encompasses knowledge and understanding of the role played by local groups and external agencies in the rebranding of rural places. The content will depend upon examples chosen and may include knowledge and understanding of:

- the process of rebranding of rural places f.e. a rural place may re-image/rebrand itself in an attempt to regenerate, often as a response to decline brought about by a changing economy
- how rebranding may take place through recreation, heritage, festivals, tourism, sport, media etc.
- the role of local groups such as chambers of commerce or local councils, or individuals such as festival organisers or farmers in this rebranding process. Responses may look at how they might rebrand the rural place through farm diversification, specialised products, festival organisation etc.
- the role of external agencies such as national government, film companies, MNCs etc.

AO2

AO2.1c content encompasses the application of knowledge and understanding to examine the role played by local groups and external agencies in the rebranding of rural places. A conclusion may be drawn in the context of the different roles played and their importance but a conclusion is not necessary in order to reach the top of Band 3. The content may vary but may include an assessment of:

- the relative importance of the roles of local groups and external agencies
- the relative importance of other stakeholders
- the relative role played by local groups and external agencies in the rebranding of rural places over geographical space
- the relative role played by local groups and external agencies in the rebranding of rural places and other stakeholders over time.

Credit other valid points not contained in the indicative content.

Award the marks as follows:		
	AO1 (10 marks)	AO2.1c (5 marks)
Band	<i>Demonstrates knowledge and understanding of the role of local groups and external agencies in the rebranding of one or more rural places.</i>	<i>Applies knowledge and understanding to appraise through an examination of the relative importance of these groups.</i>
3	<p>7-10 marks</p> <p>Demonstrates detailed and accurate knowledge and understanding of the role of local groups and external agencies.</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 examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a thorough and coherent examination of the the role of local groups and external agencies.</p>
2	<p>4-6 marks</p> <p>Demonstrates accurate knowledge and understanding of the role of local groups and external agencies.</p> <p>Demonstrates partial knowledge and understanding using some 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 the role of local groups and external agencies.</p>
1	<p>1-3 marks</p> <p>Demonstrates limited knowledge and understanding of the role of local groups and external agencies.</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 examination that is supported by evidence.</p> <p>Applies knowledge and understanding to produce a limited examination of the the role of local groups and external agencies.</p>
	<p>0 marks</p> <p>Response not creditworthy or attempted.</p>	<p>0 marks</p> <p>Response not creditworthy or attempted.</p>