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# **GCSE MARKING SCHEME**

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**SUMMER 2018**

**GEOGRAPHY SPECIFICATION A  
COMPONENT 1  
C111U10-1**

## **INTRODUCTION**

This marking scheme was used by WJEC for the 2018 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.

# EDUQAS GCSE GEOGRAPHY SPEC A

## Summer 2018 Mark Scheme

### COMPONENT 1

#### Instructions for examiners of GCSE Geography when applying the marking scheme

#### 1. Positive marking

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

GCSE Geography marking schemes are presented in a common format as shown below:

This box contains the sub-question	The columns to the right indicate the assessment objective(s) targeted by the question and its mark tariff.					
3 (a) (i) Describe the location of the island of Lefkada.	AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit two simple statements based on map evidence. Credit accurate use of compass points max 1 Credit accurate use of scale line max 1	In western Greece (1) In Ionian Sea (1) north of Cephalonia (1) 275km (+/-10) from Athens (1) 280km (+/-10) from Thessaloniki (1)					
This box contains the rationale i.e. it explains the principles that must be applied when marking each sub-question. The examiner must apply this rationale when applying the marking scheme to the response.	This box contains the candidates' expected responses for point-based marking. For some sub-questions, those with a closed question, this box will indicate the only response that is acceptable. For more open ended sub-questions this box will illustrate a number of likely responses that are credit worthy. It may be that this list will be extended at the examiner's conference after actual scripts have been read. For banded mark schemes this box contains indicative content. For further details see below under Banded mark schemes Stage 2.					

## 2. Tick marking

Low tariff questions should be marked using a points-based system. Each credit worthy response should be ticked in red pen. The number of ticks must equal the mark awarded for the sub-question. The mark scheme should be applied precisely using the expected outcomes box as a guide to the responses that are acceptable. Do not use crosses to indicate answers that are incorrect. If the candidate has not attempted the question then the examiner should strike through the available dotted lines with a diagonal line.

## 3. Banded mark schemes

Banded mark schemes are divided so that each band has a relevant descriptor. The descriptor for the band provides a description of the performance level for that band. Each band contains marks. Examiners should first read and annotate a learner's answer to pick out the evidence that is being assessed in that question. **Do not use ticks** on the candidate's response. Once the annotation is complete, the mark scheme can be applied. This is done as a two stage process.

### Stage 1 – Deciding on the band

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

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

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

### Stage 2 – Deciding on the mark

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

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

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

## Core Theme 1

1. (a) (i) Name the feature at A. Tick (✓) the correct answer below.		AO1	AO2.1	AO2.2	AO3	AO4	<b>Total</b>
Credit this response only.	slip-off slope (1)	1					<b>1</b>

1. (a) (ii) Processes such as hydraulic action occur along this river. Describe the process of hydraulic action.		AO1	AO2.1	AO2.2	AO3	AO4	<b>Total</b>
Credit up to <b>three</b> valid statements each for one mark.	Erosion/wears away (1) where the river has plenty of energy/force/flowing quickly (1) water into gaps in the soil/rock (1) compressing the air (1) river banks are undercut (1)	3					<b>3</b>

1. (a) (iii) Explain why deposition occurs on the inside bend of meanders.		AO1	AO2.1	AO2.2	AO3	AO4	<b>Total</b>											
				4			<b>4</b>											
<p>This question assesses AO2.2, inter-relationships (in this case between process and landform). Use the descriptors below, working upwards from the lowest band.</p> <table border="1"> <thead> <tr> <th>Band</th> <th>Mark</th> <th>Descriptor</th> </tr> </thead> <tbody> <tr> <td><b>2</b></td> <td>3-4</td> <td>Elaborated explanation. Understanding is demonstrated through chain(s) of reasoning.</td> </tr> <tr> <td><b>1</b></td> <td>1-2</td> <td>Simple valid statements demonstrate basic understanding.</td> </tr> <tr> <td></td> <td>0</td> <td>Award 0 marks if the answer is incorrect or wholly irrelevant.</td> </tr> </tbody> </table>		Band	Mark	Descriptor	<b>2</b>	3-4	Elaborated explanation. Understanding is demonstrated through chain(s) of reasoning.	<b>1</b>	1-2	Simple valid statements demonstrate basic understanding.		0	Award 0 marks if the answer is incorrect or wholly irrelevant.	<p>Responses should focus on the reasons for deposition occurring on the inside of the meander.</p> <p>The slower flowing water is on the inside of each bend which means that the river loses energy and deposits its load (silt, sand and gravel). Deposition also occurs because this section of a river channel is shallow with friction between the river bed and the water which slows the flow down.</p>				
Band	Mark	Descriptor																
<b>2</b>	3-4	Elaborated explanation. Understanding is demonstrated through chain(s) of reasoning.																
<b>1</b>	1-2	Simple valid statements demonstrate basic understanding.																
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.																

1. (b) (i) Use information from the map to circle the correct answer in the sentences below.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit these responses only.	20 (1) north easterly (1) 5 (1) 400 (1)					4	4

1. (b) (ii) Give <b>two</b> reasons why the upper catchment area (drainage basin) of some rivers in the UK can contribute to flooding further downstream.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit <b>two</b> valid statements for one mark each and up to <b>two developments</b> for one mark each. (2+2) or (3+1)	The source of the rivers are in upland areas (1) <i>so are likely to receive high amounts of rainfall</i> (1) Steep valley sides (1) <i>so rainwater has rapid run-off into rivers</i> (1) Rivers are joined by many tributaries (1) <i>in large drainage basins</i> (1) <i>so rivers receive more water</i> (1) Floodplains further downstream (1) <i>are areas where water would collect</i> (1) Impermeable rocks (1) <i>decreases infiltration</i> (1) <i>increases runoff</i> (1) Lack of vegetation (1) <i>less interception</i> (1) <i>more runoff</i> (1)			4			4

1. (c) (i) Tick one (✓) statement below which best describes the occurrence of flooding in Shrewsbury. Use information from Table 1.3.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit this response only.	River flooding occurs at random intervals (1)					1	1

1. (c) (ii) Calculate the mean amount of floods that occurred per year In Shrewsbury between 1998 and 2014. Show your working in the space below.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit the answer for <b>one</b> mark.  Credit working for max. 2 marks.	9 floods in total (1) 2014-1998=16 years (1) 9/16 (1) <b>Answer = 0.56 or 0.6 (1)</b> or 2014-1998=17 years (1) 9/17(1) <b>Answer = 0.53 or 0.5 (1)</b>					3	3

1. (c) (iii) Describe <b>two</b> hard engineering strategies that can be used to reduce the risk of river flooding.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit up to <b>two</b> valid strategies for one mark each and one mark for further description.	<p>Strategies that can be used to reduce the risk of river flooding include:</p> <p>Dredging of the river channel (1) to make channel deeper/hold more water (1)</p> <p>Straightening of the river channel (1) to allow water to flow downstream quickly (1)</p> <p>The construction of demountable flood barriers (1) to prevent water spilling over-bank (1)</p> <p>Building flood walls and embankments (1) to prevent water spilling over-bank (1)</p> <p>Creating dams/reservoirs upstream (1) to hold water back (1)</p>	4					<b>4</b>

1. (c) (iv) Give <b>one</b> reason why some people do not want money spent on river flood management.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit <b>one</b> valid statement for one mark and its development for a further mark	<p>Some management schemes may:</p> <p>Create unintended consequences further downstream (1) <i>because water moves downstream more rapidly</i> (1)</p> <p>Be less environmentally friendly (1) <i>because it affects biodiversity/habitat</i> (1)</p> <p>Negative impacts on local residents (1) <i>because it spoils the view</i> (1)</p> <p>Too expensive to build or maintain (1) <i>because physical processes continue [eg rivers silt up] / so defences not always effective</i> (1)</p> <p>Floods can be extreme (1) <i>so defences are not always effective</i> (1)</p> <p>Not all people live in a flood risk area (1) <i>so money could be better spent elsewhere</i> (1)</p>			2			<b>2</b>

1. (d) Analyse the different factors that might have been responsible for landform change along this coastline. Use evidence from the photographs to support your answer.			AO1	AO2.1	AO2.2	AO3	AO4	<b>Total</b>
						8		<b>8</b>
Use the descriptors below to work upwards from the lowest band.			<p>This question requires candidates to apply their prior knowledge and understanding to interpret and analyse information about a novel locality. Elements (a) and (b) are targeted. <b>No evaluation</b> of the factors is required. <b>No judgement</b> about which is the most important factor is required.</p> <p>Responses should use evidence from the photographs to focus on a range of factors which are interrelated and which can result in landform change.</p> <p>Cliffs formed of unconsolidated/weak rocks (seen in both photographs) are much less resistant to erosion and are also more prone to slumps or slides as shown in Photo 1.5.</p> <p>The rate of landform change is accelerated during extreme weather events such as intense winter storms and associated high tides, especially if the beach is narrow (evidence of destructive waves, high tide and narrow beach in Photo 1.4) Furthermore human intervention such as building groynes can have unintended consequences. They trap sediment and beaches along the coast may be starved of new sand and natural protection is lost. In some areas there has also been a lack of investment in sea defences.</p>					
<b>Band</b>	<b>Marks</b>	<b>Descriptor</b>						
<b>4</b>	7-8	Exceptional application of knowledge and understanding. Comprehensive chains of reasoning provide sophisticated analysis.						
<b>3</b>	5-6	Thorough application of knowledge and understanding. Chains of reasoning provide elaborated analysis.						
<b>2</b>	3-4	Sound application of knowledge and understanding. Some connections provide valid but limited analysis.						
<b>1</b>	1-2	Some basic application of knowledge and understanding. Basic analysis.						
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.						



### Core Theme 2

2. (a) (i) What is migration? Tick (✓) <b>one</b> definition below.		AO1	AO2.1	AO2.2	AO3	AO4	<b>Total</b>
Credit this response only.	When people move between places. (1)	1					<b>1</b>

2. (a) (ii) Use information from Graph 2.1 to circle the correct answer in the sentences below.		AO1	AO2.1	AO2.2	AO3	AO4	<b>Total</b>
Credit these responses only.	1992 and 1993 (1) 2012 and 2014 (1) fluctuated (1) 330 (1)					4	<b>4</b>

2. (b) (i) Name <b>one</b> suitable mapping technique to represent the numbers in Table 2.2.		AO1	AO2.1	AO2.1	AO3	AO4	<b>Total</b>
Credit any <b>one</b> of these responses.	Flow line maps/desire lines (1) Maps with proportional symbols (arrows, bars or circles) (1) Choropleth (1)					1	<b>1</b>

2. (b) (ii) Give <b>one</b> reason why your selected mapping technique is a suitable way to show this data.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit <b>one</b> valid statement for one mark and its development for further marks. Credit justification of techniques for mapping discrete data (including located bars).	<p><u>Flow lines/desire lines:</u> Easy to read (1) analyse (1) easy to make comparisons (1) shows vector/direction of movement (1) with width of lines proportional to value (1) shows origin (1)</p> <p><u>Map with located/proportional symbols</u> Easy to read (1) analyse (1) as symbols are proportional to value (1) easy to make comparison (1) clearly show differences between places/ able to show large range of values (1) spatial patterns (1) shows origin of migrants (1)</p> <p><u>Choropleth:</u> Easy to read (1) analyse (1) use of colour/shading (1) easy to make comparison (1) spatial patterns (1) shows origin of migrants (1)</p> <p><u>Bar chart:</u> Easy to read (1) analyse (1) easy to make comparison (1) clearly show difference/able to show range of values (1)</p>					3	<b>3</b>

2. (c) (i) What are push factors? Tick (✓) <b>one</b> answer from the statements below.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit this response only.	Factors that force people to move away from their existing home (1).	1					<b>1</b>

2. (c) (ii) Give <b>two</b> pull factors that attract people to global cities.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit up to <b>two</b> valid statements each for one mark. Statements must be qualified (eg <i>more, better</i> ).	More job opportunities (1) more educational opportunities (1) other specified services available [eg transport] (1) family already there (1)	2					<b>2</b>

2. (c) (iii) Describe <b>two</b> ways in which <b>one</b> global city you have studied is connected to other places.	AO1	AO2.1	AO2.2	AO3	AO4	Total	
<p>Credit up to <b>two</b> valid ways for one mark each and one mark for further description.</p> <p>Connections can be regional or global.</p> <p><b>Response will depend on choice of global city</b>, for example Cardiff or Mumbai. No marks for naming the city.</p> <p>All Global Cities attract economic migrants, daily commuters to work, provide special services, act as transport hubs, are centres of finance and trade, and promote ideas and information</p>	<p><b>Eg Cardiff</b></p> <p>Has an international airport (1) connecting Cardiff to several European cities for business/holidays (1).</p> <p>Has an international stadium/the Principality Stadium (1) attracting visitors from UK/abroad for sporting/cultural events (1).</p> <p>Home to Welsh Government (1) connecting Cardiff to Welsh regions/UK Government (1)</p> <p>Somali population (1) keep in touch/send money to relatives abroad (1)</p>	4					<b>4</b>

2. (c) (iv) Global cities in LICs and NICs have informal economies. Explain why informal jobs are important for people and the economy.		AO1	AO2.1	AO2.2	AO3	AO4	<b>Total</b>														
			6				<b>6</b>														
<p>This question assesses AO2.1, geographical concepts (in this case the consequences/benefits of an informal economy). Use the descriptors below, working upwards from the lowest band.</p> <table border="1"> <thead> <tr> <th>Band</th> <th>Marks</th> <th>Descriptor</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>5-6</td> <td>Thorough and elaborated understanding of benefits for both people and the economy. Depth of understanding is demonstrated through chains of reasoning.</td> </tr> <tr> <td>2</td> <td>3-4</td> <td>Elaborated understanding of some of the benefits. Demonstrates breadth of understanding.</td> </tr> <tr> <td>1</td> <td>1-2</td> <td>Simple, valid statements demonstrate basic understanding of the benefits.</td> </tr> <tr> <td></td> <td>0</td> <td>Award 0 marks if the answer is incorrect or wholly irrelevant.</td> </tr> </tbody> </table>		Band	Marks	Descriptor	3	5-6	Thorough and elaborated understanding of benefits for both people and the economy. Depth of understanding is demonstrated through chains of reasoning.	2	3-4	Elaborated understanding of some of the benefits. Demonstrates breadth of understanding.	1	1-2	Simple, valid statements demonstrate basic understanding of the benefits.		0	Award 0 marks if the answer is incorrect or wholly irrelevant.	<p>Responses should demonstrate understanding of a range of benefits to the people who work in the informal sector and to the economy of cities.</p> <p>Informal jobs are important for people because governments of some countries find it hard to create enough formal jobs. These jobs are not regulated and people do not need qualifications. They do not pay tax but they do buy goods and services from the formal economy.</p> <p>City authorities recognise the value of the informal sector because many workers collect waste and recycle it solving the problem of collection and disposal. The informal economy provides jobs and services such as social care that the state cannot afford.</p>				
Band	Marks	Descriptor																			
3	5-6	Thorough and elaborated understanding of benefits for both people and the economy. Depth of understanding is demonstrated through chains of reasoning.																			
2	3-4	Elaborated understanding of some of the benefits. Demonstrates breadth of understanding.																			
1	1-2	Simple, valid statements demonstrate basic understanding of the benefits.																			
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.																			

2. (d) Give <b>two</b> reasons why counter-urbanisation takes place.		AO1	AO2.1	AO2.2	AO3	AO4	<b>Total</b>
<p>This question assesses AO2.1, geographical concepts (in this case the concept of flow). Credit up to <b>two</b> valid statements each for one mark and up to two <i>explanation/reasons</i> each for one mark. (2+2) or (3+1) Accept cheaper <b>only</b> if suitable example is given (London)</p>	<p>Improvements in broadband and teleworking (1) <i>so people can work from a rural base/variety of locations</i> (1) People will take jobs in rural areas (1) <i>because scenic areas/better environments</i> (1) People wish to leave the pollution and congestion of cities (1) <i>so they have a better lifestyle for children</i> (1) Improved road transport (1) <i>so accessible for commuters</i> (1) Ageing population (1) <i>so more retirees</i> (1) <i>don't need to live close to work</i> (1) <i>prefer to live in scenic/quieter area</i> (1).</p>		4				<b>4</b>

2. (e) Should permission be given to build large new housing estates on the edge of villages such as Elsenham? Justify your answer by referring to evidence in the Resource Box.							AO1	AO2.1	AO2.2	AO3	AO4	SPaG	Total
										8		4	12
Use the descriptors below, working upwards from the lowest band.							<p>This question requires candidates to develop lines of argument to analyse and evaluate rural change and make judgements about the impacts of commuting and counter-urbanisation. Elements (a) (b) (c) and (d) are targeted.</p> <p>Candidates should apply knowledge and understanding of the impacts of commuting and counter-urbanisation on accessible rural areas in the UK.</p> <p>They may argue that housing <b>should</b> be built because: this village is very accessible to London (referring to evidence of M11 and rail service) so will provide homes for commuters who work in London but who cannot afford to live there (referring to £143,000 price difference); that it is better to expand villages because it will help protect services (such as the post office, shop and primary school) as the new residents will support local services.</p> <p>They may argue that housing <b>should not</b> be built because:  Building homes on green field sites is bad for nature and agriculture and that using brownfield sites in London would be better. Evidence in the photo shows that people oppose the large new development – an attitude known as NIMBYism.  Counter-urbanisation reduces the availability of homes for those raised in the countryside; attracts the more affluent and pushes up rural house prices, making them unaffordable for local people; results in the closure of village shops and other services in some villages; meant that the more established inhabitants feel that their culture is threatened and conflicts can occur between traditional villagers and newcomers.</p>						
<b>Band</b>	<b>Marks</b>	<b>Descriptor</b>											
<b>4</b>	7-8	Exceptional application of knowledge and understanding. <ul style="list-style-type: none"> <li>Comprehensive chains of reasoning provide sophisticated analysis.</li> <li>Balanced and coherent appraisal draws together wider geographical understanding to justify decision.</li> </ul>											
<b>3</b>	5-6	Thorough application of knowledge and understanding. <ul style="list-style-type: none"> <li>Chains of reasoning provide elaborated analysis.</li> <li>Balanced appraisal draws together wider geographical understanding to support decision.</li> </ul>											
<b>2</b>	3-4	Sound application of knowledge and understanding. <ul style="list-style-type: none"> <li>Some connections provide valid but limited analysis.</li> <li>Limited appraisal uses wider geographical understanding to support decision.</li> </ul>											
<b>1</b>	1-2	Some basic application of knowledge and understanding. <ul style="list-style-type: none"> <li>Basic level of meaning ascribed to the information/issue.</li> <li>Limited and weak appraisal uses some wider geographical understanding to support decision.</li> </ul>											
	0	Award zero marks if the answer is incorrect or wholly irrelevant.											

Once a mark (out of 8) has been awarded for the geographical content, apply the performance descriptors for spelling, punctuation and the accurate use of grammar and specialist terms that follow.

<b>Band</b>	<b>Mark</b>	<b>Performance descriptions</b>
<i>High</i>	4	<ul style="list-style-type: none"> <li>• Learners spell and punctuate with consistent accuracy</li> <li>• Learners use rules of grammar with effective control of meaning overall</li> <li>• Learners use a wide range of specialist terms as appropriate</li> </ul>
<i>Intermediate</i>	2 – 3	<ul style="list-style-type: none"> <li>• Learners spell and punctuate with considerable accuracy</li> <li>• Learners use rules of grammar with general control of meaning overall</li> <li>• Learners use a good range of specialist terms as appropriate</li> </ul>
<i>Threshold</i>	1	<ul style="list-style-type: none"> <li>• Learners spell and punctuate with reasonable accuracy</li> <li>• Learners use rules of grammar with some control of meaning and any errors do not significantly hinder meaning overall</li> <li>• Learners use a limited range of specialist terms as appropriate</li> </ul>
	0	<ul style="list-style-type: none"> <li>• The learner writes nothing</li> <li>• The learner's response does not relate to the question</li> <li>• The learner's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning</li> </ul>

### Option Theme 3, Question 3

3. (a) Describe the location of Christchurch in New Zealand.		AO1	AO2.1	AO2.2	AO3	AO4	<b>Total</b>
Credit <b>two</b> valid statements based on the map each for one mark.	In NE/E of (1) South Island (1) east coast/Pacific coast (1) south west of Wellington (1) 280-320km from Wellington (1)					2	<b>2</b>

3. (b) (i) Christchurch is close to a destructive plate margin. Tick (✓) <b>two</b> features found at destructive plate margins in the list below.		AO1	AO2.1	AO2.2	AO3	AO4	<b>Total</b>
Credit these responses only.	Stratovolcano (1) Ocean trench (1)	2					<b>2</b>

3. (b) (ii) Explain why the process of subduction occurs at destructive plate margins.		AO1	AO2.1	AO2.2	AO3	AO4	<b>Total</b>
				4			<b>4</b>

This question assesses understanding of the relationship between the process of subduction and environments  
Use the descriptors below, working upwards from the lowest level.

Band	Marks	Descriptor
<b>2</b>	3-4	Elaborated explanation. Understanding is demonstrated through chains of reasoning.
<b>1</b>	1-2	Simple valid statements demonstrate basic understanding.
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.

Responses should focus on the reasons why subduction occurs at destructive plate margins.

A destructive plate margin is an area where two plates move towards each other. The point where the two plates meet is known as the subduction zone. Plates move because of convection currents in the mantle and/or slab pull due to the density of the oceanic plate. The subducted plate is cooler and denser than the surrounding mantle and gravity pulls it down.

3. (c) 'Christchurch, New Zealand, is less vulnerable to earthquakes than other communities in tectonic zones.'			AO1	AO2.1	AO2.2	AO3	AO4	Total
To what extent do you agree with this statement? Use evidence from the Resource Box to support your answer.						8		8
Use the descriptors below to work upwards from the lowest band.			<p>This question requires candidates to synthesise links between different areas of knowledge and understanding to analyse novel information that requires a judgement. All elements of AO3 are targeted.</p> <p>Candidates must apply their knowledge and understanding of tectonic activity to decide whether some communities are less vulnerable to the effects of earthquakes.</p> <p>Responses will ascribe specific meaning to interpret and analyse the resources before evaluating the evidence and making a judgement.</p> <p>They may use evidence from the resource box to argue that:  The Christchurch region experiences regular and powerful earthquakes and lies on a destructive plate boundary;  Aftershocks and the possibility of tsunamis add to vulnerability;  Tremors bring buildings to the ground, and create other problems for people and the economy;  All communities in earthquake zones are vulnerable.  However, Christchurch is in a HIC and therefore New Zealand has the means to reduce the earthquake risk through earthquake proof buildings, planning and monitoring. Therefore, Christchurch can cope much better with long-term effects.</p>					
<b>Band</b>	<b>Marks</b>	<b>Descriptor</b>						
<b>4</b>	7-8	<p>Exceptional application of knowledge and understanding.</p> <ul style="list-style-type: none"> <li>Comprehensive chains of reasoning provide sophisticated analysis.</li> <li>Balanced and coherent appraisal draws together wider geographical understanding to justify decision.</li> </ul>						
<b>3</b>	5-6	<p>Thorough application of knowledge and understanding.</p> <ul style="list-style-type: none"> <li>Chains of reasoning provide elaborated analysis.</li> <li>Balanced appraisal draws together wider geographical understanding to support decision.</li> </ul>						
<b>2</b>	3-4	<p>Sound application of knowledge and understanding.</p> <ul style="list-style-type: none"> <li>Some connections provide valid but limited analysis.</li> <li>Limited appraisal uses wider geographical understanding to support decision.</li> </ul>						
<b>1</b>	1-2	<p>Some basic application of knowledge and understanding.</p> <ul style="list-style-type: none"> <li>Basic level of meaning ascribed to the information/issue.</li> <li>Limited and weak appraisal uses some wider geographical understanding to support decision.</li> </ul>						
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.						



## Option Theme 4, Question 4

4. (a) Describe the location of Christchurch in New Zealand.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit <b>two</b> valid statements based on the map each for one mark.	In NE/E of (1) South Island (1) east coast/Pacific coast (1) south west of Wellington (1) 280km to 320km from Wellington (1)					2	<b>2</b>

4. (b) (i) One strategy which may be used to reduce the risk of flooding is to hold the line. Tick (✓) <b>two</b> correct characteristics of hold the line in the list below.		AO1	AO2.1	AO2.2	AO3	AO4	Total
Credit these responses only.	Use hard engineering (1) Sea defences are regularly maintained (1)	2					<b>2</b>

4. (b) (ii) Explain why managed retreat is used along some stretches of coastline.		AO1	AO2.1	AO2.2	AO3	AO4	Total
				4			<b>4</b>

This question assesses inter-relationships (in this case between the process of flooding and coastal management).  
Use the descriptors below, working upwards from the lowest level.

Band	Marks	Descriptor
<b>2</b>	3-4	Elaborated explanation. Understanding is demonstrated through chains of reasoning.
<b>1</b>	1-2	Simple valid statements demonstrate basic understanding.
	0	Award 0 marks if the answer is incorrect or wholly irrelevant.

Answers should focus on the reasons why 'managed retreat' is used to reduce the risk of flooding along certain coastlines.

Managed retreat is an example of 'retreat the line' where low value land is allowed to flood. *This process recreates natural mudflats and salt marshes that will store water and act as a buffer zone and protect more valuable land inland or further along the coastline.*

4. (c) 'Christchurch, New Zealand is less vulnerable than other coastal communities to the effects of coastal flooding.' To what extent do you agree with this statement? Use evidence from the Resource Box to support your answer.			AO1	AO2.1	AO2.2	AO3	AO4	<b>Total</b>
						8		<b>8</b>
Use the descriptors below to work upwards from the lowest band.			<p>This question requires candidates to synthesise links between different areas of knowledge and understanding to analyse novel information that requires a judgement. All elements of AO3 are targeted.</p> <p>Candidates must apply their knowledge and understanding of coastal flooding to decide whether some communities are less vulnerable to their effects.</p> <p>Responses will ascribe specific meaning to interpret and analyse the resources before evaluating the evidence and making a judgement.</p> <p>They may use evidence from the resource box to argue that: Christchurch lies in a low-lying region close to the sea and close to rivers; its location by the coast leaves it exposed to storms from the Pacific Ocean; low lying land is threatened by rising sea levels; flooding results in damage to homes and creates other problems for people and the economy; All coastal communities are vulnerable. However, Christchurch is in a HIC and therefore New Zealand has the means to reduce the flood risk through hard engineering, managed realignment and coastal hazard mapping. Therefore, Christchurch can cope much better with long-term effects.</p>					
<b>Band</b>	<b>Mark</b>	<b>Band descriptor</b>						
<b>4</b>	7-8	<p>Exceptional application of knowledge and understanding.</p> <ul style="list-style-type: none"> <li>Comprehensive chains of reasoning provide sophisticated analysis.</li> <li>Balanced and coherent appraisal draws together wider geographical understanding to justify decision.</li> </ul>						
<b>3</b>	5-6	<p>Thorough application of knowledge and understanding.</p> <ul style="list-style-type: none"> <li>Chains of reasoning provide elaborated analysis.</li> <li>Balanced appraisal draws together wider geographical understanding to support decision.</li> </ul>						
<b>2</b>	3-4	<p>Sound application of knowledge and understanding.</p> <ul style="list-style-type: none"> <li>Some connections provide valid but limited analysis.</li> <li>Limited appraisal uses wider geographical understanding to support decision.</li> </ul>						
<b>1</b>	1-2	<p>Some basic application of knowledge and understanding.</p> <ul style="list-style-type: none"> <li>Basic level of meaning ascribed to the information/issue.</li> <li>Limited and weak appraisal uses some wider geographical understanding to support decision.</li> </ul>						
	0	Award zero marks if answer is incorrect or wholly irrelevant.						