edexcel

# Mark Scheme (Results)

## Summer 2016

## Pearson Edexcel GCSE Geography B (5GB1H/01)
## Unit 1: Dynamic Planet

**Edexcel and BTEC Qualifications**

Edexcel and BTEC qualifications come from Pearson, the world's leading learning company. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information, please visit our website at www.edexcel.com.

Our website subject pages hold useful resources, support material and live feeds from our subject advisors giving you access to a portal of information. If you have any subject specific questions about this specification that require the help of a subject specialist, you may find our Ask The Expert email service helpful.

www.edexcel.com/contactus

**Pearson: helping people progress, everywhere**

Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your candidates at: www.pearson.com/uk

Summer 2016
Publications Code 5GB1H_01_1606_MS
All the material in this publication is copyright
© Pearson Education Ltd 2016

## General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

## Placing a mark within a level mark band

- The instructions below tell you how to reward responses within a level. Follow these unless there is an instruction given within a level. However, where a level has specific guidance about how to place an answer within a level, **always** follow that guidance.

- **2 mark bands**
  Start with the presumption that the mark will be the higher of the two.
  An answer which is poorly supported gets the lower mark.

- **3 mark bands**
  Start with a presumption that the mark will be the middle of the three.
  An answer which is poorly supported gets the lower mark.
  An answer which is well supported gets the higher mark.

- **4 mark bands**
  Start with a presumption that the mark will be the upper middle mark of the four.
  An answer which is poorly supported gets a lower mark.
  An answer which is well supported and shows depth or breadth of coverage gets the higher mark.

- Mark schemes will indicate within the table where, and which strands of QWC, are being assessed. The strands are as follows:

  *i) ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear*

  *ii) select and use a form and style of writing appropriate to purpose and to complex subject matter*

  *iii) organise information clearly and coherently, using specialist vocabulary when appropriate.*

**Spelling, Punctuation and Grammar Marking Guidance**

- The spelling, punctuation and grammar assessment criteria are common to GCSE English Literature, GCSE History, GCSE Geography and GCSE Religious Studies.

- All candidates, whichever subject they are being assessed on, must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.

- Spelling, punctuation and grammar marking criteria should be applied positively. Candidates must be rewarded for what they have demonstrated rather than penalised for errors.

- Examiners should mark according to the marking criteria. All marks on the marking criteria should be used appropriately.

- All the marks on the marking criteria are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the marking criteria.

- Examiners should be prepared to award zero marks if the candidate's response is not worthy of credit according to the marking criteria.

- When examiners are in doubt regarding the application of the marking criteria to a candidate's response, the team leader must be consulted.

- Crossed out work should be marked unless the candidate has replaced it with an alternative response.

- Handwriting may make it difficult to see if spelling, punctuation and grammar are correct. Examiners must make every effort to assess spelling, punctuation and grammar fairly and if they genuinely cannot make an assessment, the team leader must be consulted.

- Specialist terms do not always require the use of complex terminology but the vocabulary used should appropriate to the subject and the question.

- Work by candidates with an amanuensis, scribe or typed script should be assessed for spelling, punctuation and grammar.

- Examiners are advised to consider the marking criteria in the following way:
  - How well does the response communicate the meaning?
  - What range of specialist terms is used?
  - How accurate is the spelling, punctuation and grammar?

| Question Number | Answer | Reject | Mark |
|---|---|---|---|
| **1 (a)** | 1 mark for suggesting an appropriate reason. Additional mark available for an extending statement.<br><br>Common responses likely to include:<br>• Population density (1) example or development (1)<br>• Timing of earthquake (1) development of same (1)<br>• Emergency services preparedness (1) development/detail, e.g. fire services (1)<br>• Many/few earthquake proof buildings (1) example of such (1)<br>• Nature of buildings (1) single storey cause minimal damage when they collapse (1)<br>• Population was well drilled or not (1) example or development (1)<br>• Earthquake triggered a tsunami (1) example or development (1)<br>• Emergency relief was quickly provided by supporting countries (1) example or development (1)<br>• Level of development (1) plus valid extension (1) | | **(2)**<br><br>**(1+1)** |

| Question Number | Correct Answer | Reject | Mark |
|---|---|---|---|
| **1(b)** | 1 mark for each appropriate statement. Additional mark(s) awarded for extending statements.<br><br>For example, at destructive boundaries convection currents cause plates to collide (1). The denser or oceanic plate is pushed downwards into the mantle (1) and melts (1) as the melted crust has a greater gas content (1) magma rises up through crust (1) magma is viscous/andesitic or any other comment relevant to magma/lava type (1) forming a composite cone/strato/explosive volcano (1).<br><br>Diagrams should be marked using the above points either as explicitly stated through annotations or implicit in the diagram itself.<br><br>NB – allow relevant points even if student discusses constructive margins – for example 'magma/lava rises to the surface and forms a volcano. | Points that are specific to constructive boundaries.<br><br>Duplicate points with the same point being made on the diagrams in the text – only credit once. | **(4)**<br><br>**1+1+1+1**<br>**(1+1+1)+1**<br>**(1+1) + (1+1)** |

| Question Number | Indicative content | |
|---|---|---|
| **1(c)** | There are a wide range of immediate responses and relief efforts. Common actions are likely to include:<br><br>• Search and rescue activities<br>• Emergency services mobilised<br>• Armed forces sent to assist<br>• Field hospital established<br>• Rations of food and water circulated<br>• Essentials, such as blankets, distributed<br>• Tent cities established<br>• Evacuation of effected region and injured.<br><br>Success can be evaluated in terms of the saving of lives and/or minimising economic disruption. | |
| Level | Mark | Descriptor |
| **Level 0** | 0 | No acceptable response. |
| **Level 1** | 1-2 | An immediate response/relief effort has been identified. Location may be named. Little, if any, development. Limited structure to answer, basic use of geographical terminology. |
| **Level 2** | 3-4 | Response includes location specific information. At least one immediate response has been identified and has been extended with some detail. Some structure, clearly communicated but with limited use of geographical terms. |
| **Level 3** | 5-6 | Answer is clearly focused on the chosen tectonic event. Two or more immediate responses have been identified and extended. Some attempt to examine their success. Clear structure, well communicated with mostly sound use of geographical terms. |

| Question Number | Answer | Reject | Mark |
|---|---|---|---|
| **2 (a)** | 1 mark for each valid statement.<br><br>Common responses likely to include:<br><br>• Almost all of Britain is expected to become drier (1)<br>• It's an uneven pattern of decrease (1)<br>• The South coast will see the largest falls in rainfall (reduction of over 30%) (1)<br>• The smaller falls in rainfall will be in the North (1)<br>• North West Scotland and the northern Isles will see rainfall fall by less than 10% (1)<br>• Data that supports **pattern** e.g. 30-40% decrease on South Coast whilst there is a 10-20% decrease in Scotland.<br><br>2 marks can be awarded even without pattern being directly addressed | | **(2)**<br><br>**1+1** |

| Question Number | Correct Answer | Acceptable responses | Reject | Mark |
|---|---|---|---|---|
| **2(b)** | 1 mark for identifying an appropriate environmental change. Additional mark(s) awarded for extending statements.<br><br>Allow a wide range of potential changes given uncertainty over nature of climate change.<br><br>For example, some areas may experience severe flooding (1) such as Suffolk (1).<br><br>Some animals may migrate out and/or whilst others migrate in (1)<br><br>Common answers likely to focus on:<br><br>• Biome shift<br>• Animal migrations<br>• Extinctions<br>• Food web imbalance<br>• Increased river flooding/erosion in coastal locations<br>• Sea level change and impact of same<br>• Increased frequency of drought<br><br>NB – it is valid to discuss past climate change examples here e.g. Little Ice Age | Allow environment to be interpreted broadly as in 'there may be changes in sea-water temperatures'<br><br>Allow impact on farming, e.g. changes in cropping patterns (1) legitimate example (1) | People focused responses.<br><br>Identification of the change **alone** e.g. it will get stormier | **(4)**<br><br>**(1+1) + (1+1)**<br><br>**(1+1+ 1)+ (1)** |

| Question Number | Indicative content | |
|---|---|---|
| **2(c)** | There are many natural causes of climate change. Common causes are likely to include:<br><br>• Volcanic activity<br>• Changes in solar output (sunspots and flares)<br>• Orbital shifts<br>• Wobbles in tilt<br>• Changes in polar ice coverage impacting on levels of surface reflection.<br>• Meteorite strike(s)<br>• El Nino<br><br>Students may refer to past periods of climate change or approach it in more general terms. | |
| Level | Mark | Descriptor |
| **Level 0** | 0 | No acceptable response. |
| **Level 1** | 1-2 | Natural cause of climate change has been identified. Little, if any, development. Limited structure to answer, basic use of geographical terminology. |
| **Level 2** | 3-4 | At least one natural cause of climate change has been identified and extended. Response includes some explanation linking the cause to the effect e.g. warmer/colder earth, in general terms. Some structure, clearly communicated but with limited use of geographical terms. |
| **Level 3** | 5-6 | Two or more natural causes have been accurately explained. Candidate has linked specific causes to specific climate change e.g. colder winters because of impact of dust in atmosphere blocking incoming solar radiation for several years leading to global cooling. Clear structure, well communicated with mostly sound use of geographical terms. |

| Question Number | Answer | Reject | Mark |
|---|---|---|---|
| **3 (a)** | 1 mark for a valid reason (1), a mark for extension of same that relates to vegetation (1).<br><br>Common responses likely to include:<br>• High rainfall (1) supporting rapid growth – Net Primary Productivity – dense vegetation (1)<br>• Close to the equator where temperatures are high (1) allowing high Net Primary Productivity or equivalent idea, e.g. dense vegetation etc. (1) | | **(2)**<br><br>**(1+1)** |

| Question Number | Correct Answer | Reject | Mark |
|---|---|---|---|
| **3(b)** | 1 mark for identifying a way in which the biosphere regulates the composition of the atmosphere. Additional mark(s) awarded for extending statements.<br><br>Common answers likely to refer to:<br><br>For example, vegetation takes in carbon dioxide (1) during the process of photosynthesis (1) and releases oxygen (1). This $CO_2$ is stored within the vegetation forming a carbon sink (1).<br><br>For example, animals breathe in oxygen (1) during respiration (1) and release carbon dioxide (1).<br><br>For example, animals release methane (1) during digestion (1). Methane is also released from wetlands (1) when organic matter breaks down anaerobically (1).<br><br>For example, levels of vegetation contribute to levels of water vapour (1) which will vary from place to place and over time (1) according to vegetation patterns (1)<br><br>**NB: No explanation – max mark 2.** | | **(4)**<br><br>**(1+1) + (1+1)**<br><br>**(1+1+1)+ (1)** |

| Question Number | Indicative content |
|---|---|
| **3 (c)** | There are a large number of management strategies which are used to conserve the biosphere. Common approaches are likely to include:<br><br>• National Parks<br>• Reserves (both land and marine)<br>• International Agreements – such as RAMSAR (Wetlands) and CITES (Endangered Animals) but only if applied in a national context<br>• Biodiversity Action Plans (BAPs)<br>• SSSIs<br>• Sustainable fishing<br>• Community forests<br>• World Heritage Sites<br>• Eco-tourism<br>• Sustainable forestry<br><br>There is no obligation that 'a national approach or 'a local approach' will be ONE national or ONE local scheme. In other words students might offer something about a Costa Rican national approach and then something about a UK national approach. The same applies to 'local management measures'. International approaches (e.g. Cites) can be acceptable if discussed in a national context. Otherwise global/international approaches should be capped at the top of Level 1. |

| Level | Mark | Descriptor |
|---|---|---|
| **Level 0** | 0 | No acceptable response. |
| **Level 1** | 1-2 | A biosphere conservation method has been identified. Some description but little, if any, development. Limited structure to answer, basic use of geographical terminology. |
| **Level 2** | 3-4 | A biosphere conservation method has been described in some detail. One partially developed statement which states/asserts links to conservation. Some structure, clearly communicated but with limited use of geographical terms. |
| **Level 3** | 5-6 | Strong description of methods with excellent detail/data. Good links to explain the impacts on conservation. Clear structure, well communicated with mostly sound use of geographical terms. |

| Question Number | Answer | Mark |
|---|---|---|
| **4 (a)** | Material can be drawn from resource or candidates own knowledge and understanding.<br><br>1 mark for suggesting an appropriate reason. Additional mark available for an extending statement.<br><br>Common responses likely to include:<br><br>• Loss of valuable farmland (1) so reduced food production in some areas (1)<br>• Ecosystem changes (1) disturbance/decline in fish population (1) | **(2)**<br><br>**(1+1)** |

| Question Number | Correct Answer | Allow | Reject | Mark |
|---|---|---|---|---|
| **4(b)** | Identifying the process of precipitation (1), details of cloud to rain process(es) (1).<br><br>Identifying the process of surface runoff (1), details of process (1).<br>Identify the process of through flow (1), details of process (1).<br>Identifies the process of groundwater flow (1), details of the process (1).<br><br>Allow a third mark for any process that is described in detail e.g. Surface run-off (1) because of impermeable ground (1) and intense rainfall (1) | Melting ice/calving of glaciers | Responses which refer to other stages of the hydrological cycle. | **(4)**<br><br>**(1+1)**<br>**+**<br>**(1+1)**<br><br>**Or**<br>**(1+1+)**<br>**+ 1** |

| Question Number | Indicative content | |
|---|---|---|
| **4 (c)** | Water supply can be disrupted by a number of human activities. Common activities are likely to refer to:<br><br>• Over extraction for domestic and agricultural use<br>• Re-direction of water courses<br>• Construction of dams can disrupt supply downstream<br>• Deforestation can reduce precipitation levels<br>• Man-made climate change is leading to increasingly unreliable rainfall patterns<br>• Industrial, agricultural and domestic waste disposal can contaminate important water sources. | |
| Level | Mark | Descriptor |
| **Level 0** | 0 | No acceptable response. |
| **Level 1** | 1-2 | An appropriate human activity has been identified. Little, if any descriptive development. Limited structure to answer, basic use of geographical terminology. |
| **Level 2** | 3-4 | Two or more human activities have been identified. Good description of the activities. One partially developed statement which links to disruption of supply. Some structure, clearly communicated but with limited use of geographical terms. |
| **Level 3** | 5-6 | Strong description of activities with excellent detail/data. Good links to explain the impact on supply. Clear structure, well communicated with mostly sound use of geographical terms. |

| Question Number | Answer | Reject | Mark |
|---|---|---|---|
| **5 (a) (i)** | Longshore drift.<br>Long Shore Drift<br>Credit LSD.<br><br>Allow any reasonable spelling | All other responses. | **(1)** |

| Question Number | Answer | Mark |
|---|---|---|
| **5 (a) (ii)** | Common responses likely to include:<br>• Swash moves material up the beach at an (oblique) angle or equivalent idea (1)<br>• Backwash takes material off the beach but at 90° to the alignment of the beach or equivalent idea (1)<br>• So net movement of material is along the beach (1)<br>• Spit grows when coastline bearing/direction changes (1)<br><br>If diagram used then mark as above if either annotated accordingly or implicit in the diagram. | **(3)**<br>(1+1+1) |

| Question Number | Indicative content | |
|---|---|---|
| ***5(b) QWC i-ii-iii** | Coastal retreat can be managed using a number of different approaches. Each strategy has its own benefits and costs. As such, local groups with varying priorities often conflict over their use.<br><br>Traditional (hard) engineering usually involves heavy construction and often inadvertently destroy the natural coastline. Sea walls, gabions and rip rap are used to break-up the waves and reflect the wave's energy back to sea. They are expensive but also effective.<br><br>Strategic realignment is an alternative to the use of hard flood defences. This approach involves a combination of strategies from soft measures, such as the planting of marron grass to stabilise dunes, to the 'do nothing' approach.<br><br>The focus of this question is the 'conflicting views'. These are likely to be a function of the personal risk of economic loss balanced with aesthetics and a consideration of both the economic and political costs and benefits for public purse holders e.g. local councils and national government. | |
| Level | Mark | Descriptor |
| **Level 0** | 0 | No acceptable response. |
| **Level 1** | 1-3 | Answer identifies one approach to coastal management. Some extended statements about that management. Some structure to answer and some relevant use of geographical terms. |
| **Level 2** | 4-6 | Answer describes two or more strategies used to manage coastal retreat. Candidate identifies benefits and/or costs associated with one strategy. Response is likely to include named examples. Conflict stated but not explored. Clear structure, clearly communicated, with relevant use of geographical terms. |
| **Level 3** | 7-8 | Answer describes at least two approaches in some detail. Strong links to reasons for differences/conflict and why different groups are likely to hold different views on the coastal management strategies used. Response is likely to have developed place specific content. Clear structure, well communicated with excellent use of geographical terms. |
| **SPaG Level 0** | 0 | Errors severely hinder the meaning of the response or candidate does not spell, punctuate or use the rules of grammar within the context of the demands of the question. |
| **SPaG Level 1** | 1 | Threshold performance<br>Candidate spells, punctuates and uses the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately. |

| | | |
|---|---|---|
| **SPaG Level 2** | 2 | Intermediate performance<br>Candidate spells, punctuates and uses the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility. |
| **SPaG Level 3** | 3 | High performance<br>Candidate spells, punctuates and uses the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision. |

| Question Number | Answer | Reject | Mark |
|---|---|---|---|
| **6 (a) (i)** | Deposition<br>Meander(s)<br>Meandering | All other responses | **(1)** |

| Question Number | Answer | Reject | Mark |
|---|---|---|---|
| **6 (a) (ii)** | Common response likely to be:<br>• Meander becomes more pronounced allowing narrow neck to form (1)<br>• River erodes through a meander 'neck' or breaches during flood episode (1)<br>• The water will take the fastest route downstream and by-passes the old loop (1)<br>• This causes deposition builds up in the entrances to the old channel forming an oxbow lake (1)<br><br>If diagram used then mark as above if either annotated accordingly or implicit in the diagram. | Statements which relate to other aspects of the Oxbow lake formation 'life-cycle'. | **(3)** |

| Question Number | Indicative content | |
|---|---|---|
| ***6 (b) QWC i-ii-iii** | River flooding can be managed using a number of different approaches. Each strategy has its own benefits and costs. The success of these schemes can be evaluated in terms of the impact on flood events, property damage, economic costs and personal safety/risk changes.<br><br>Answers are likely to focus on the use of:<br><br>• Diversion channels –divert river water away from valuable areas.<br>• Dams – barriers built across the river to hold back water, creating a reservoir. Water is released at a controlled rate.<br>• Channel alterations – river widened or deepened to allow the channel to hold a greater quantity of water.<br>• Afforestation – planting trees to increase interception/transpiration and reduce surface runoff.<br>• Flood plain zoning – planning rules to stop building on floodplains.<br>• Washlands – areas where flooding is allowed; removing excess water from the river.<br><br>The focus of this question is the 'success' of schemes which is likely to be measured by the likelihood/reality of repeat flood events and their severity and the costs of avoiding this.<br>Candidates may choose a located case-study approach comparing different methods used in one scheme or comparing two contrasting schemes. They may also chose examples of different methods e.g. hard v soft engineering with their 'examples' being **these** methods rather than specific locations. | |
| Level | Mark | Descriptor |
| **Level 0** | 0 | No acceptable response. |
| **Level 1** | 1-3 | Answer identifies one approach to flood management. Some extended statements about that management. Some structure to answer and some relevant use of geographical terms. |
| **Level 2** | 4-6 | Answer describes two or more strategies used to manage river flooding. Candidate identifies benefits and/or costs associated with one strategy. Response is likely to include named examples. Success stated but not explored. Clear structure, clearly communicated, with relevant use of geographical terms. |
| **Level 3** | 7-8 | Answer describes at least two approaches in some detail. Strong links to reasons for differences in success and why some management schemes are more successful than others. Response is likely to have developed place specific content to illustrate relative success/failure. Clear structure, well communicated with excellent use of geographical terms. |
| **SPaG Level 0** | 0 | Errors severely hinder the meaning of the response or candidate does not spell, punctuate or use the rules of grammar within the context of the demands of the question. |
| **SPaG Level 1** | 1 | Threshold performance |

| | | |
|---|---|---|
| | | Candidate spells, punctuates and uses the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately. |
| **SPaG Level 2** | 2 | Intermediate performance<br>Candidate spells, punctuates and uses the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility. |
| **SPaG Level 3** | 3 | High performance<br>Candidate spells, punctuates and uses the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision. |

| Question Number | Answer | Mark |
|---|---|---|
| **7 (a) (i)** | **Place/location specific points –**<br><br>One or more location with heavy pollution identified e.g. Mississippi delta (1)<br>One or more location with light pollution identified e.g. Mississippi delta (1)<br><br>**Pattern points -**<br><br>It's uneven and/or almost all in slick area (1)<br>Gets lighter from west to east or reverse of same or other legitimate pattern idea (1)<br>Heaviest closest to the source (1)<br><br>Data to support any one point, e.g. use of scale (1)<br><br>**If no pattern then limit to 2 marks** | **(3)**<br>1+1+1 |

| Question Number | Answer | Reject | Mark |
|---|---|---|---|
| **7 (a) (ii)** | Waste disposal (1)<br>Run-off from farmland (1)<br>Sewage disposal (1)<br>Industrial effluent (1)<br>Tourists littering (1)<br><br>Allow any reasonable response with legitimate links to coastal environments. | References to quantity | **(1)** |

| Question Number | Indicative content | |
|---|---|---|
| ***7 (b) QWC i-ii-iii** | Candidates could focus on a wide range of global actions, including:<br><br>• The Law of the Sea, established to prevent individual countries from taking more than their fair share of the ocean's resources.<br>• International Seabed Authority established to safeguard resources and environments.<br>• International laws ratified to prevent the dumping of radioactive waste into the sea.<br>• Global Marine Species Assessment is an internationally managed programme designed to study marine ecosystems.<br>• MARPOL – International convection for the prevention of pollution from ships.<br>• IWC – International Whaling Commission set up to protect whales.<br>• CITES – prevents the trade in endangered marine animals.<br>• RAMSAR – global effort to protect wetlands, including marine ecosystems such as mangrove swamps.<br>• Local schemes that are explicitly applied to a global context e.g. 'methods such as keeping tourists out of some areas of the barrier reef in Australia could be applied elsewhere e.g. Caribbean'.<br><br>The focus of this question is the 'effectiveness' of the global actions which can be approached in terms of ongoing changes in ocean health. Broadly speaking these global measures are proving to be ineffective in protecting oceans from degradation.<br><br>Allow approaches that tackle the question from the current state of the oceans, e.g. the growing problem of plastic waste in the various 'gyres' which suggest that whatever actions are in place are largely ineffective.<br><br>**If candidates offer only 'local' schemes then limit to L1** | |
| Level | Mark | Descriptor |
| **Level 0** | 0 | No acceptable response. |
| **Level 1** | 1-3 | Answer identifies one or more global action designed to protect marine ecosystems. Some descriptive detail. Some structure to answer and some relevant use of geographical terms. |
| **Level 2** | 4-6 | Answer describes two or more global actions. Candidate states links to impact on degradation. Response is likely to include named examples. Clear structure, clearly communicated, with relevant use of geographical terms. |
| **Level 3** | 7-8 | Clear and full description of two or more global actions and their impact. Good links to degradation with a judgement about the actions' effectiveness. Response is likely to have developed example specific content. Clear structure, well communicated with excellent use of geographical terms. |
| | | |

| | | |
|---|---|---|
| **SPaG Level 0** | 0 | Errors severely hinder the meaning of the response or candidate does not spell, punctuate or use the rules of grammar within the context of the demands of the question. |
| **SPaG Level 1** | 1 | Threshold performance<br>Candidate spells, punctuates and uses the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately. |
| **SPaG Level 2** | 2 | Intermediate performance<br>Candidate spells, punctuates and uses the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility. |
| **SPaG Level 3** | 3 | High performance<br>Candidate spells, punctuates and uses the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision. |

| Question Number | Answer | Mark |
|---|---|---|
| **8 (a) (i)** | **Place/location specific points –**<br>One or more area used as example/development e.g Davis Strait (1)<br><br>Data to support one or more examples (1)<br><br>**Pattern -**<br>It is uneven (1)<br>Greatest in north south band/core/centre idea, fewer on the periphery/edge or same point using compass points (1)<br>Similar picture for change – stable in centre or equivalent idea – less so on periphery (1)<br><br>**If no pattern then limit to 2 marks** | **(3)** |

| Question Number | Answer | Mark |
|---|---|---|
| **8 (a) (ii)** | • Melting ice isolates population (1)<br>• Habitat loss (1)<br>• Food-web changes – reduced food supply (1)<br><br>Allow any reasonable response with legitimate links to climate change | **(1)** |

| Question Number | Indicative content | |
|---|---|---|
| ***8 (b) QWC i-ii-iii** | Focus should be on the traditional economies but links to climate change come through changes to natural environment:<br><br>• Changing temperatures leading to desertification and polar ice cap melt.<br>• Increases/decreases in rainfall, resulting in prolonged droughts and extreme flooding.<br>• As these ecosystems are extremely fragile a small change in climate can have a dramatic impact on the biome.<br>• Changes in climate are damaging habitats.<br>• Wildlife forced to migration or threatened by extinction. Food webs collapse with knock-on impacts for all species.<br>• Migration of local population due to reduced opportunities.<br><br>These changes could impact on traditional economies by:<br>• Loss of native land and marine animals affecting hunting and fishing – food supply, fur industry etc.<br>• Thinning ice is impacting on transport – making it difficult to reach hunt sites and trade goods.<br>• Melting permafrost is affecting local buildings.<br>• Extended droughts are making farming impossible, affecting food supply.<br>• Changing climates are encouraging workers to migrate to new locations, leaving extreme environments underpopulated and short of workers.<br><br>Allow a broad interpretation of 'economies' and 'traditional' as in ''traditionally' Aboriginal people rely of tourists to sell souvenirs and artefacts'. | |
| Level | Mark | Descriptor |
| **Level 0** | 0 | No acceptable response. |
| **Level 1** | 1-3 | Answer identifies one or more impact on traditional economies. Some descriptive detail. Some structure to answer and some relevant use of geographical terms. |
| **Level 2** | 4-6 | Answer describes two or more impacts on traditional economies. Candidate states links to climate change through changes in natural environment. Response is likely to include named examples. Clear structure, clearly communicated, with relevant use of geographical terms. |
| **Level 3** | 7-8 | Clear and full description of two or more impacts on traditional economies. Good links to climate change through detailed comment on changing natural environments. Response is likely to have developed example specific content. Clear structure, well communicated with excellent use of geographical terms. |

| | | |
|---|---|---|
| **SPaG Level 0** | 0 | Errors severely hinder the meaning of the response or candidate does not spell, punctuate or use the rules of grammar within the context of the demands of the question. |
| **SPaG Level 1** | 1 | Threshold performance<br>Candidate spells, punctuates and uses the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately. |
| **SPaG Level 2** | 2 | Intermediate performance<br>Candidate spells, punctuates and uses the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility. |
| **SPaG Level 3** | 3 | High performance<br>Candidate spells, punctuates and uses the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision. |