

# Mark Scheme (Results)

Summer 2016

Pearson Edexcel GCSE in  
Geography A (5GA2H/01)  
Unit 2: The Natural Environment

## **Edexcel and BTEC Qualifications**

Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at <http://qualifications.pearson.com> or [www.btec.co.uk](http://www.btec.co.uk). Alternatively, you can get in touch with us using the details on our contact us page at <http://qualifications.pearson.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 students at: [www.pearson.com/uk](http://www.pearson.com/uk)

Summer 2016

Publications Code 5GA2H\_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 be 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	Mark
<b>1(a) (i)</b>	225m (Allow 200-250m)	<b>(1)</b>

Question Number	Answer	Mark
<b>1(a) (ii)</b>	<p>Question asks the candidates to suggest how, therefore must develop a given point.</p> <p>Two developed points for maximum marks, both people an environment but must develop people and environment for max.</p> <p>Max 3 if only people or the environment.</p> <p>Max 2 if generic or reference to a another coastline</p> <p>Impact of erosion on people:</p> <ul style="list-style-type: none"> <li>• loss of land</li> <li>• loss of waste disposal site</li> <li>• loss of water source</li> <li>• loss of barge landing</li> <li>• loss of school</li> <li>• forced evacuation.</li> </ul> <p>Impact of erosion on the environment:</p> <ul style="list-style-type: none"> <li>• contaminated water source with salt water</li> <li>• rapid recession of the coastline</li> <li>• possible pollution of environment (if polluted by 'dump site materials').</li> <li>• loss of water sources.</li> </ul> <p>People will be affected because the boat dock may be eroded (1). This will mean that outside contact or trade is reduced to inability to dock barges (1). The environment would be affected if salt water contaminated the ground water (1). This would have an effect on freshwater plants which would no longer be able to survive (1).</p>	<p><b>(4)</b></p> <p>(1+1) +(1+1) , (1+1+1)+(1)</p>

Question Number	Answer	Mark
<b>1(b)</b>	<p>The questions require an outline, which is a brief explanation or a developed description.            One mark for the description of the process and one mark for a development.            Processes must be relevant to the coast.</p> <p>No credit for named processes.</p> <p>No credit for erosional process as the cause.</p> <p>Max 2 if just description and no outline.</p> <p><b>Weathering</b> (credit either specific processes or a general outline):</p> <p>Weathering is the breakdown of material in situ (1).            This occurs due to changes in the weather causing the rocks to be broken down over time (1).</p> <p>Freeze thaw occurs when there are diurnal changes in the weather above and below zero degrees (1). This causes rock joints to expand and break off (1).</p> <p>Exfoliation occurs when there is a warming and cooling of temperature (1). This causes the rock to peel off in layers (1).</p> <p>Salt crystallisation is when salt gets into the cracks in rocks (1). It expands putting pressure on rock joints (1).</p> <p>Process of <b>mass movement</b> (credit either the specific process or the general outline of mass movement):</p> <p>Mass movement – the downward movement of geological material on the coastal cliffs or slopes (1) caused by lubricated soil or gravity (1).</p> <p>Slumping – (rapid) downward movement of coastal cliffs (1) as a result of water lubricates a joint/weakness (1).</p> <p>Soil Creep – (slow) movement of the soil on coastal slopes in a downward motion (1) as a result of gravity (1).</p> <p>Rock fall – (rapid) the collapse of material (1) due to gravity at the base of the cliff forming an overhang (1).</p>	<p><b>(4)</b></p> <p>(1+1)+            (1+1),            (1+1+1)+(1)</p>

Indicative content		
<b>1*(c) QWC</b>	<p>The focus of the question is how forecasting methods and planning reduce the effects of coastal flooding.</p> <p>References to erosion are only acceptable in the context of flooding.</p> <p>Examples refer to organisations or programs set up by groups to forecast or to specific locations of planning.</p> <p>Impacts of coastal flooding are reduced by:</p> <p>Forecasting</p> <ul style="list-style-type: none"> <li>• Organisations such as the Met Office monitor satellite weather to determine strong coastal weather conditions.</li> <li>• They allow (time-series) prediction of coastal storms (low pressure systems) or tidal systems to determine the height of the sea level.</li> <li>• This allows for clear cut decision making by local authority, the Environment Agency or emergency services and informs the public (allows planning).</li> </ul> <p>Planning</p> <ul style="list-style-type: none"> <li>• Can involve the building of coastal defences/flood barrages in tidal zones (by the Environment Agency).</li> <li>• The ability to issue warnings.</li> <li>• Determine the need to evacuate or shut business or residential areas.</li> <li>• Allows action in advance by decision makers therefore reducing over effects.</li> </ul>	
Level	Mark	Descriptor
<b>Level 0</b>	0	No acceptable response
<b>Level 1</b>	1-2	A very basic description of the effects of coastal flooding with focus on either forecasting or planning. For top of level the candidate must have a couple of descriptions. Very basic use of geographical terminology – communication not always clear.
<b>Level 2</b>	3-4	An attempt or partial explanation of either how forecasting or planning can reduce the effects of coastal flooding. For top of the level there should be a series of partial explanations – this may be either two on forecasting or planning or one on each. Some use of geographical terminology and communication is mostly clear. The use of examples is evident.
<b>Level 3</b>	5-6	A full explanation of how either forecasting or planning reduce the impact of coastal flooding along with a partial explanation. For top of band there should be a full explanation of how both forecasting and planning reduce the effects of coastal flooding. Examples should be used throughout to support. Clear use of geographical terminology and well communicated.

Question Number	Answer	Mark
<b>2(a)</b>	<p><b>Confluence</b> – the point at which two rivers meet/tributary joins the main channel.</p> <p><b>Watershed</b> – the boundary/edge/outside/circumference/perimeter/periphery of a drainage basin. A ridge of land surrounding the drainage basin.</p> <p>Only one mark for each definition.</p>	<b>(2)</b>

Question Number	Answer	Mark
<b>2(b)</b>	<p>Question asks the candidate to identify an erosional landform – one mark reserved for this.</p> <p>No credit given for an incorrect landform, however correct description with reference to landforms in the mark scheme is creditworthy.</p> <p>Question asks the candidate to describe the role of erosion. There should be one mark for a simple description and one for developed description.</p> <p>Landform – Waterfall (1)</p> <p>Hydraulic action occurs as the water falls in the plunge pool (1), the impact of the water on the softer rock helps form the waterfall (1).</p> <p>Gorge – (1)</p> <p>Hydraulic action occurs as the force of the water falls into the plunge pool (1). This creates an overhang which erodes back. (1) The steep sided valley created as the waterfall cuts back is a gorge (1).</p> <p>River channel/floor/bed (1)</p> <p>Abrasion occurs as water moves sediment (1). This causes the pebbles to strike the bed/bank and erode it. (1)</p> <p>Plunge pool (1)</p> <p>Hydraulic action occurs as the force of the water falls onto the ground (1). This deepens the surface creating a plunge pool (1).</p> <p>Cliffs/Undercut</p> <p>Hydraulic action occurs as the force of the water hits the cliff (1). Over time this will create an undercut or an overhang (1) which could lead to the collapse of the cliff/undercut.</p> <p>Also allow credit for rapids.</p>	<p><b>(3)</b></p> <p>(1+1+1) (1+1)+1</p>

Question Number	Answer	Mark
<b>2(c)</b>	<p>Question asks the candidates to suggest, therefore they must develop a given point. Two developed points needed for maximum marks.</p> <p>Max 2 without reference to figure 2b.</p> <p>Potential flooding of Heathrow airport (1) which means that flights could become delayed or cancelled (1).</p> <p>Parts of the M25/M3/M4 are in the area of severe flooding (1) which could lead to road closures or traffic delays (1).</p> <p>Most settlements along the River Thames are likely to be damaged (1) which could lead to some evacuations (1).</p> <p>Contamination of water supplies e.g. reservoirs serving Kingston Upon Thames (1) resulting in water shortages locally (1)</p>	<p><b>(4)</b> (1+1)+ (1+1)</p>

Question Number	Indicative content	
*2d	<p>Question asks for advantages of methods of river management (soft or hard engineering).</p> <p>Max Level 1 if it has reference to engineering but not in the context of the question i.e. outside of UK</p> <p>Max 1 for list.</p> <p>Do not credit warning systems e.g. Environment agency is a response to flooding not an engineering method.</p> <p>Advantages may relate to:</p> <ul style="list-style-type: none"> <li>• effectiveness</li> <li>• cost</li> <li>• ease of construction/use</li> <li>• impact on the environment.</li> </ul> <p>For example, dams are highly effective at protecting areas for a long period of time. This is because they are able to hold up the discharge and it is possible to release the water in controlled conditions to reduce the likelihood of flooding. The river Quaggy has been restored with conservation methods and realigned, so that the river now has a wetland with reed banks, flower meadows and trees. A 450m flood embankment was built in Weedon (Northamptonshire). It was an extra 6.8m high therefore increasing channel capacity, thereby reducing the future impacts of flooding.</p>	
Level	Mark	Descriptor
<b>Level 0</b>	0	No acceptable response
<b>Level 1</b>	1-2	A very basic description of an advantage of either a hard or a soft engineering (not focused on UK rivers). At the top of the level a couple of advantages are described. Very basic use of geographical terminology – communication not always clear.
<b>Level 2</b>	3-4	An attempt at a partial explanation of an advantage of engineering used on UK rivers. For top of the level there should be a series of partial explanations of the advantages. There may <b>(not requirement)</b> be reference to a UK river (locational detail). Some use of geographical terminology and communication is mostly clear.
<b>Level 3</b>	5-6	Full explanation of the advantages of one advantage of engineering (with another partial explanation). For top of band expect at least two developed explanations of the advantages of different engineering methods. There may detailed evidence of a UK river(s) <b>(but not requirement)</b> . Clear use of geographical terminology and well communicated.

Question Number	Answer	Mark
<b>3(a)</b>	<p>Point mark Marks can be gained for description of setting or an example.</p> <p>Earthquakes occur at plate boundaries (1).</p> <p>Earthquakes occur at hotspots (1).</p> <p>Type of plate boundary (1) development (1) e.g. at conservative plate margins (1) plates move past each other (1)</p> <p>Larger earthquakes occur at convergent plate boundaries (1).</p> <p>Earthquakes are found at all plate boundaries (1).</p> <p>Examples of plate boundaries/tectonic regions, e.g. Pacific ring of fire (1).</p> <p>Along transform faults, within a plate (1).</p> <p>Smaller magnitude earthquakes are found at divergent plate boundaries (1).</p>	<p><b>(2)</b> 1+1</p>

Question Number	Answer	Mark
<b>3(b)</b>	<p>Only a description required. Credit only the environment. One mark per point.</p> <p>Max 1 if no reference to figure 3a.</p> <p>Allow credit for development of a descriptive point e.g. lava lakes formed (1), which would destroy habitats (1)</p> <ul style="list-style-type: none"> <li>• 1949 created a lava lake near summit (1).</li> <li>• 1585 eruption (Jedey) added land to the west coast (1).</li> <li>• 1677 eruption (Fuencaliente) added 16 small cones to the area.</li> <li>• Cumbre Vieja active volcanic zone divides the island (or similar).</li> </ul>	<p><b>(3)</b></p> <p>1+1+1, (1+1)+(1)</p>

Question Number	Answer	Reject	Mark
<b>3(c)</b>	<p>Question asks for candidates to explain the formation.</p> <p>Therefore 2 marks for just description.</p> <p>Max 1 mark for just a labelled diagram.</p> <p>Max 2 if answer is not annotated on the diagram e.g. if answer is written below.</p> <p>Do not double credit information on any diagram used.</p> <p>Hotspot formation</p> <p>Description = D Explanation = E</p> <p>Plume of magma rises to the surface (or an isolated mass of magma) (D). This occurs because the rising magma is of a lower density to that around it (E).</p> <p>As the magma reaches the crust it domes the crust (forcing it upwards) (D). This leads to the crust weakening and allowing magma to reach the surface (E).</p> <p>Islands build up above the hotspot on the crust until they rise above sea level (D). This is due to a series of low viscosity eruptions which build up the island which is often much wider relative to their height (E).</p> <p>As the crust moves over the hotspot the volcanic activity will cease over time (D). This is because the route taken by magma is cut causing the volcanic dormancy (E).</p>	<p><b>references to volcanic activity on convergent and divergent plate boundaries.</b></p>	<p><b>(4)</b> (1+1) + (1+1)</p>

		Indicative content
<b>3*(d)</b> <b>QWC</b>	<p>This question asks for reasons why people continue to live in areas of earthquake activity, not volcanic. No credit for 'volcanic reasons'.</p> <p>Economic reasons include: A well paid job in an earthquake prone area A financial inability to leave an area despite the understanding of earthquake risk Government (individuals) are able to invest in preventative measures</p> <p>Social reasons to include: Lack of knowledge of the hazard Perception of smaller events when reality is otherwise Belief in those protecting you (mismanagement by local authority) Comfortable with risk Infrequency of event</p> <p>Examples: People who work for large companies like Apple in California (Silicon Valley) are highly skilled and earn high wages. Therefore despite the fact that there are earthquakes they will stay as the benefits outweigh the costs.</p> <p>Authorities in Haiti were unaware of the Enriquillo-Plantain Garden fault line until a couple of years before the 2010 earthquake resulting in poor preparation and management.</p>	
Level	Mark	Descriptor
<b>Level 0</b>	0	No acceptable response
<b>Level 1</b>	1-2	A very basic description of why people live in earthquake affected areas (in relation to either economic or social reasons). For the top of the level the candidate includes a couple of descriptive points. The candidate may/may not use examples in support (these are generic e.g. place name).Very basic use of geographical terminology – communication not always clear.
<b>Level 2</b>	3-4	An attempt or partial explanation of either the economic or social reasons why people continue to live in areas of earthquake activity. For top of the level there should be a partial explanation <b>of both</b> economic and social reasons. Use of examples should be included in support of answer, for top Level 2. Some use of geographical terminology and communication is mostly clear.
<b>Level 3</b>	5-6	Must have at least a partial/full explanation of social and economic reasons to get into Level 3. For top of band there should be a full explanation of both economic and social reasons. There should be specific place detail (as examples) in support of the reasons. Clear use of geographical terminology and well communicated.
Question	Answer	Mark

Number		
<b>4(a)</b>	<p><b>Reserve one mark for the pattern in Figure 4a.</b> Allow two partial reasons or one developed reason.</p> <p>Most likely reason:            More wind in the north and south (1)            Higher electricity production in the west/south west (1) due to strong (prevailing) wind from south west (or north west)/most consistent flow of wind in the south west (1) therefore ability to generate a much higher amount of energy (1).            They may be located on higher ground (1), so that there are higher wind speeds to generate electricity.            The area may be designated a wind power development area (1), therefore a high amount of wind power per unit area (1).            Some area may have lower amounts of wind due to protests (1) as action groups have successfully protested against developments (1).            Award marks for relevant locational points.</p>	<p><b>(3)</b></p> <p>1+(1+1)            1+1+1</p>

Question Number	Answer	Mark
<p><b>4(b)</b></p>	<p>Candidate is required to explain the <b>attitudes or actions or reasons</b> of individuals and governments, therefore one mark for a descriptive point and one for an explanation.</p> <p>Must have explanation of <b>both individuals and governments</b> for 4 marks.</p> <p>Therefore max 2 for descriptions.</p> <p>Max 2 if neither governments nor individuals are mentioned directly.</p> <p>Attitudes can be positive or negative.</p> <p>Focus can be on any renewable energy even though wind is shown in Figure 4a.</p> <p>Individuals</p> <p>Dislike the visual impact on the environment (D), due to the height of many larger wind turbines at over 20m (E).</p> <p>The noise of the turbines is disruptive to people who live nearby (D). This is due to the noise of the air rotating the blades of the turbine (E).</p> <p>People benefit from cheaper energy prices as it is supplied locally (D) rather than paying for the higher cost of imported energy (E).</p> <p>Turbines built on bird migration routes (1) as people are concerned at the kill rate of migrating birds (1).</p> <p>Governments</p> <p>Producing renewable energy decreases the reliance on imports (D). This means that there will be greater energy security (E), it could also mean that the cost of electricity is cheaper as it is supplied locally (E).</p> <p>It promotes a greener and more sustainable image (D), as the renewable energy sources produce far less carbon dioxide emissions, reducing carbon footprint (E).</p> <p><b>NOTE that candidates may talk about any form of renewable energy therefore be aware of this.</b></p>	<p><b>(4)</b></p> <p>(1+1)+ (1+1)</p>

Question Number	Answer	Mark
4(c)	<p>Outline required therefore should include a detailed description or a brief explanation. One mark for the advantage. A second mark for a development. Third mark for a double development or an example.</p> <p><b>Max 1 without an outline.</b></p> <p>Reduces need to extract additional resources (1) therefore lowers impact on environment (1) and lower emissions in transporting raw materials (1).</p> <p>Reduced energy use in recycling glass (1) rather than extracting. (1) Therefore less natural resource is used in the glass production process (1).</p> <p>Reduced cost in recycling (1) as there are lower transport and extraction costs (1) because the cost of extracting requires more energy and money than simply collecting and recycling (1).</p> <p>Recycling material leads to greater sustainability (1) leading to a greater public awareness (1) therefore lowering carbon footprint (1).</p>	<p><b>(3)</b></p> <p>1+1+1</p>

Question Number	Answer	Mark
<b>4(d)</b>	<p>Question focuses on the different methods used by HICs to dispose of its solid waste. <b>There is no credit for HIC policy on energy waste.</b></p> <p><b>Max 2 if no clear reference to a named HIC or if generic.</b></p> <p><b>Max 3 with specific developed description through example.</b>  e.g. Germany has 160 landfill sites (1) an example is Lubeck, which can treat 200,000 tonnes of waste each year (1).</p> <p>Methods to include:</p> <ul style="list-style-type: none"> <li>• recycling (national scale schemes)</li> <li>• incineration</li> <li>• landfill</li> <li>• solid waste treatment</li> <li>• exporting waste.</li> <li>• sorting waste into coloured bins for recycling</li> </ul> <p>Germany has the Grune Punkt recycling scheme to encourage the public and business to recycle solid waste (1). They now have a target of 50% recycling by 2020 (1).</p> <p>Germany use landfill however have set targets to reduce the amount of biodegradable waste sent to them (1). All landfill is treated before being place into the ground (1). They have used many old quarries/mines to maximise land use and not destroy any new spaces for landfill (1).</p>	<p><b>(4)</b></p> <p>(1+1)+ (1+1)</p>

Question Number	Indicative content	
<p><b>*4 (e)</b> <b>QWC</b> <b>i-ii-iii</b></p>	<p>Reasons for variation in carbon footprint</p> <p>Higher carbon footprints in more developed countries:</p> <ul style="list-style-type: none"> <li>• greater use of electrical appliances</li> <li>• increased car ownership</li> <li>• greater number of flights in holidays</li> <li>• high rates of water use (large amounts of energy used in cleaning process)</li> <li>• food miles</li> <li>• use of raw materials</li> <li>• high rates of energy use – heating.</li> </ul> <p>Can also gain credit for recognition of other factors such as population size/density in an area.</p> <p>Credit recognition of variations between types of countries.</p> <p>To achieve the top of Level 3 the candidate is required to show evidence of 'examining' the reasons for variations in carbon footprints. This requires an assessment of the reasons and a comment to determine the significance.</p> <p>If a candidate scores 0 for content, they must be given a score of 0 for SPAG.</p>	
Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1–2	<p>An attempt to describe the variation in carbon footprint between countries. At the top of the level there will be a series of descriptions. Examples may be used, but is not always relevant to the answer (may not be located). Tends to be basic use of geographical terminology.</p>
Level 2	3–4	<p>One attempted or partial explanation of a reason for variations in carbon footprints. For top of level expect a series of partial explanations. Examples may be used, especially in the top of this band to clearly show variation. Generally clearly communicated but with mixed use of geographical terminology.</p>

Level 3	5-6	Explicit reference to carbon footprint is needed. Clear explanation of at least one reason for variation in carbon footprint between countries (with supporting partial explanations). For top of level there should be a clear explanation of at least <b>two</b> reasons for the variations in carbon footprint. The candidate has also shown clear evidence of attempting to ' <b>examine</b> ' in their concluding comments. Examples should be clearly used to show the variations in carbon footprint. Well communicated with good use of geographical terminology.
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	<i>Threshold performance</i> 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	2-3	<i>Intermediate performance</i> 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	4	<i>High performance</i> 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
<b>5(a)</b>	<p><b>Reserve one mark for the pattern, although candidates do not need the pattern for full marks</b> in Figure 5a. Allow two partial reasons or one developed reason. Candidates can access full marks without identifying trend.</p> <p>Allow a mark for development through a correct example e.g. the pipes are old (1) ½ are over 100 years old (1).</p> <p>Overall the trend shows a decrease in water leakages (1).</p> <p>Broken pipes which are not fixed (1)</p> <p>Leaking taps which are not fixed (1)</p> <p>Lack of manpower to fix damaged infrastructure (1)</p> <p>Lack of maintenance (1) therefore old infrastructure is more susceptible to leaks (1).</p> <p>Allow any valid/relevant response</p>	<p><b>(3)</b></p> <p>1+(1+1) 1+1+1</p>

Question Number	Answer	Mark
<b>5(b)</b>	<p>Question requires an explanation, therefore <b>one point</b> described plus on point developed.</p> <p><b>No credit for LICs.</b></p> <p>Maximum 2 for just description.</p> <p>Accept use if linked to water supply problems.</p> <p>Supply of rainfall (varying themes on low supply throughout the year).</p> <p>Allow pollution as a cause of water supply problems.</p> <p>Example:  Countries in dry regions (such as Spain) have low levels of rainfall (1). This is due to the fact that central Spain is a high pressure area (1). Therefore in parts of Spain they have to import water.  The north east of England is in the lee of the Pennines (1), therefore it receives a lower amount of rainfall throughout the year than the north-west (1).</p> <p>Seasonal variability in demand.</p> <p>In the summer the demands in the south east (1) (due to London and other major towns) cause the need for hosepipe bans and temporary supply restrictions (1).  On some of the Mediterranean islands there is an increased population due to tourism (1). This leads to an increase in demand for water and therefore the need to temporarily importing water to meet demand (1).</p>	<p><b>(4)</b>  (1+1)+  (1+1)</p>

Question Number	Answer	Mark
<b>5(c)</b>	<p>One mark for a type of water management. A second mark for a development. Third mark for a double development</p> <p><b>Allow any reference to uses on figure 5b.</b></p> <p>Water meters help monitor water use (1) so that people can track what they use (1) and therefore make informed decisions about restricting their use (1).</p> <p>Hosepipe ban in dry periods (1) reduce water consumption for unnecessary uses therefore enabling use for major domestic uses (1).</p> <p>Hippo/short-flush toilets used in the bathroom (toilets) (1) so that less water is used in a flush.</p> <p>Agricultural water use is managed through drip irrigation (1), this supplies the exact water required to the roots of the plant to avoid overuse (1)</p>	<p><b>(3)</b></p> <p>1+1+1</p>

Question Number	Answer	Mark
<b>5(d)</b>	<p>This question requires an explanation, therefore one mark for the point and one for the explanation.  Allow reference to both local and regional examples.</p> <p>Maximum 2 for description.</p> <p>Maximum 3 if no examples are used in support (examples are place specific detail). References to Mexico are not specific enough, candidates must refer to more specific places locally e.g. Mexico City.</p> <p>Max 3 if one method.</p> <p>Methods used to obtain water:</p> <ul style="list-style-type: none"> <li>• dams</li> <li>• reservoirs</li> <li>• groundwater (aquifers)</li> <li>• rivers</li> <li>• methods of appropriate technology</li> </ul> <p>In Israel people access water from the river Jordan (1). This has been diverted away from its original course to enable people in western Israel to maintain their high water usage (1).</p> <p>In Surrey water is extracted from chalk downland aquifers (1). The water is pumped to the surface before it is treated and then supplied to homes (1).</p> <p>The river Colorado has a series of dams along its route to ensure that water can be extracted for use (1). One such dam is the Hoover dam and Lake Mead, which supplies water to Las Vegas (1), which is principally desert.</p>	<p><b>(4)</b>  (1+1)+  (1+1),  (1+1+1)+(1)</p>

Question Number	Indicative content	
<b>*5 (e)</b> <b>QWC</b> <b>i-ii-iii</b>	<p>HICs are facing an increasing demand for water.</p> <ul style="list-style-type: none"> <li>-showering society</li> <li>-golf courses</li> <li>-washing machines/dishwashers etc.</li> <li>-domestic use in general (washing cars/gardens)</li> <li>-leisure uses</li> <li>-high water use in industry</li> <li>-climate change which is leading to an increase in drought in areas</li> <li>-may look at increases in population density in areas to show greater increase in demand.</li> </ul> <p>To achieve the top of Level 3 the candidate is required to show evidence of 'examining' the reasons for variations in increasing demands. This requires an assessment of the reasons and a comment to determine the significance.</p> <p>If a candidate scores 0 for content, they must be given a score of 0 for SPAG.</p>	
Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1-2	A description of reasons for an increasing demand for water in a HIC. Top of the level will have a couple of descriptions. Examples may be included, but are of limited relevance to the answer. Very basic use of geographical terminology – communication not always clear.
Level 2	3-4	One attempted or partial explanation of reasons for an increasing demand for water in a HIC. For top of level expect a range of partial explanations. Exemplification may be used, especially in the top of this band. Generally clearly communicated but with mixed use of geographical terminology.
Level 3	5-6	Clear explanation of reasons for an increasing demand for water in a HIC. For top of level there should be a range of clear explanations. The candidate has also shown clear evidence of attempting to 'examine' in their concluding comments. The candidate may use detailed located HIC examples but this is NOT a requirement. Well communicated with good use of geographical terminology.
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	<i>Threshold performance</i> 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	2-3	<i>Intermediate performance</i> 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	4	<i>High performance</i> 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.