

Mark Scheme (Results)

Summer 2013

GCSE Geography (5GA2F) Paper 01
Natural Environment - Foundation

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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	Acceptable Answers	Reject	Mark
1 (a)(i)	Stronger		1
ii	B - Have a larger wavelength than destructive wave E - Deposit sand on the beach		2
bi	The cliff is made out of chalk. It is approximately 30m high. There is a wave cut platform in front of the cliff. It is rocky/chalk and approximately 20m wide.		5
ii	Point Mark. Credit relevant points on diagram. Do not double credit points in text and on diagram. Allow the formation of cliffs in the context of headlands and bays. Softer rock erodes faster than harder rock (1) by hydraulic action (or named process) (1) This leads to quicker erosion in bays (1). Bays can develop beaches (1) with sand from eroded material (1). Headlands can erode into arches/stacks/stumps.		4 1+1+1+1 (1+1)+1+1 (1+1)+(1+1)
ci	D - is broken down		1
ii	Point mark Allow only one mark for a named process e.g. Slumping (1) E.g. Landslides (1) can rapidly remove areas of coastline. Soil Creep (1) can cause material to be slowly downslope (1) forming rippled surface. Slumping (1) can lead to cliffs collapsing (1) as a result of saturation (1) leading to a curved shape in the cliffs (1)		3 1+1+1
di	D -Rip Rap (Rock Armour)		1
ii	Point Mark Allow explanatory comments as description. Max 3 for one advantage. E.g. Sea walls act as a barrier to the waves (1). They deflect the energy. (1) Sea walls reduce the wave energy hitting the coast (1). They are cheap to maintain (1).	Do not accept generalised references without context e.g. it is cheap = 0.	4 (1+1)+(1+1) (1+1+1)+1

	<p>Rip rap allows waves to break on them rather than the coast (1). They serve to absorb wave energy (1) which reduces overall erosion rates (1). Rip rap is durable (1) therefore they are infrequently replaced (1)</p> <p>If more than two advantages are given credit the best two answers.</p>		
E	<p>Point Mark</p> <p>Max 3 without example (place specific) - however no credit for the example.</p> <p>Max 3 if just described - (outline needed).</p> <p>An outline is a developed description or a brief explanation.</p> <p>Must mention people and environment for max</p> <p>Reference to effects of recession on people and environment.</p> <p>e.g. People lose their homes (1); loss of land (1); evacuation from an area (1); increase cost of defences (1); loss of animal habitats (1). At Dawlish Warren trains can be cancelled as the railway runs next to the sea (1). In storm conditions it can flood onto the tracks (1).</p>		<p>4</p> <p>(1+1)+1+1</p> <p>(1+1)+(1+1)</p> <p>(1+1+1)+1</p>

Question Number	Acceptable Answers	Reject	Mark
2 (a)(i)	C - Watershed		1
ii	X - source Y - confluence		2
bi	The feature shown in Figure 2a is a waterfall . It is approximately 100m high. The valley sides are steep and there are interlocking spurs. There are rounded rocks in the river.		5
ii	Point Mark Credit relevant points on diagram. Do not double credit points in text and on diagram. E.g. Found where hard rock overlies soft rock (1) Water causes erosion of soft rock (1) this creates a plunge pool (1). The overlying hard rock collapses into the plunge pool (1). The recession of waterfall forms a gorge (1).		4 1+1+1+1 (1+1)+1+1 (1+1)+(1+1)
ci	B - breaks down the banks of a river		1
ii	Point mark Allow only one mark for a named process e.g. Slumping (1) E.g. Landslides (1) move large amounts of material into the river (1), leading to a loss of the river bank (1). Slumping (1) causes saturated banks (1) to fall into the river (1). Soil creep (1) leads to slow movements of banks (1).		3 1+1+1
di	B - Flood relief channel		1
ii	Point mark Allow explanatory comments as description Figure 2c shows a flood relief channel - but accept responses that see the method as a river or a flood relief channel. Max 3 for one advantage. E.g Flood relief channels drain excess water from the main river (1). This stops the main channel from overflowing (1). Flood relief channels hold the water (1) until ready to be released (1) back into the main channel (1). This stops the river from migrating (1).	Do not accept generalised references without context e.g. it is cheap = 0.	4 (1+1) + (1+1) (1+1+1)+1

	If more than two advantages are given credit the best two answers.		
e	<p>Point Mark</p> <p>Max 3 without example (place specific) - however no credit for the example.</p> <p>Max 3 if just described - (outline needed).</p> <p>An outline is a developed description or a brief explanation.</p> <p>Must mention people and environment for max e.g. Loss of land (1); Loss of animal habitats (1); damage to property (1); infrastructure damage (1);</p> <p>In Bolivia in 2007 19 people died (1) on a tributary of the Rio Grande as a result of flooding. 100 000 were left homeless (1).</p>		<p>4</p> <p>(1+1)+1+1</p> <p>(1+1)+(1+1)</p> <p>(1+1+1)+1</p>

Question Number	Acceptable Answers	Reject	Mark
3 (a)(i)	Freeze Thaw		1
ii	C - Abrasion E - Plucking		2
bi	The highest point on the Figure 3a is a pyramidal peak . This landform has three arêtes leading up to it. Many of the small valleys start/end in a corrie. All valleys have a stream in them. The U -shaped valley is 200m wide.		5
li	Point Mark Credit relevant points on diagram. Do not double credit points in text and on diagram. Can credit either formation via moraine blocking valley or glacial erosion over-deepening valley. Process related descriptions should be related to formation of the lake rather than the U-shaped valley e.g. glaciers advance and erode the valley (1). They subsequently melt to leave a lake (1). e.g. Ribbon lakes are formed in glacial troughs (1). They often form after a glacier has receded (1), leaving large amounts of sediment which dam a valley (1). The water builds up behind this to form a lake (1). The feature extends along the valley floor and is therefore elongated (1). Note - allow one mark for reference to formation of U-shaped valley as part of sequence.		4 1+1+1+1 1+1+(1+1) (1+1)+(1+1)
ci	D - U-Shaped Valley		1
ii	Point Mark Must have at least one example (place specific) for 3 marks. Max 2 for description - must outline for max. Max 1 for a list. E.g. Skiing is popular in glacial environments as glacial valleys provide good slopes (1), such as in		3 1+1+1 (1+)+1

	the Alps in places like Montroc (1). Hiking is popular along glacial features such as arêtes and pyramidal peaks (1). Many people walk the Snowdon horseshoe (1) and they spend on average £80 per person per night (1).		
di	A - Snow fences		1
ii	<p>Point mark. Max 3 for one advantage. Accept explanation as description. Accept best two answers if more than two given.</p> <p>E.g. Trees slow the avalanche down (1) by acting as a physical barrier (1). This means less snow reaches people downslope (1) which therefore causes less potential damage (1). Trees are a natural method of protection (1) which does not spoil the idyllic mountain views (1). Snow fences act as a barrier to the snow (1) reducing the amount of snow falling downslope (1). They also break the energy of the avalanche (1) meaning that if the avalanche makes it to a settlement the effects will be reduced (1)</p>	Do not accept generalised references without context e.g. it is cheap = 0.	4 (1+1) + (1+1) (1+1+1)+1
E	<p>Point Mark Max 3 without example (place specific) - however no credit for the example. Max 3 if just described - (outline needed). An outline is a developed description or a brief explanation.</p> <p>Examples of causes - e.g. Heavy snow, weather systems, poor preparation, removal of trees.</p> <p>E.g. Galtur - Relentless Atlantic storms brought record snowfalls in February(1) (4m of snow(1)). Strong local winds caused snow drifts above the Galtur area (1). Melt crust (1)formed which meant that weak layers of snow did not collapse therefore leading to a more devastating avalanche (1). The Wasser Leiter area had minimal avalanche protection (1).</p>	Effects	4 (1+1)+1+1 (1+1)+(1+1) (1+1+1)+1

Question Number	Acceptable Answers	Reject	Mark
4 (a)(i)	Ruapehu; Taranaki; Taupo; Whakaari; Rotorua		1
ii	Hikurangi Puysegur		2
Bi	<p>There are three volcanoes shown in Figure 4b.</p> <p>The main volcano is approximately 750m high and has steep sides.</p> <p>It is also erupting lava/steam.</p> <p>All volcanoes are erupting steam.</p>		5
ii	<p>Point Mark</p> <p>Must be in the context of hotspot not divergent or convergent plate boundary.</p> <p>Note: allow one mark for rising magma.</p> <p>E.g. A plume of magma rises below the crust (1) This puts pressure on the crust and domes/cracks it (1). Magma erupts on the surface to build a volcano (1) The plates move over time and the volcano becomes extinct (1). Over time a chain of islands are formed (1).</p>		4 1+1+1+1
ci	A - Social		1
ii	<p>Must have at least one example (place specific) for 3 marks. Names of volcanoes are specific however country names are not.</p> <p>Max 2 for description - must outline for max. Max 1 for a list.</p> <p>Reasons likely to include crop growth and sale, tourism, resource exploitation</p> <p>E.g. Fertile soil from weathered ash (1) provides perfect growing conditions (1) which enables high crop yields (1) which can be sold for profit (1). People can mine minerals (1) which provides them with a well paid job (1)</p>		3 (1+1)+1
di	Seismometer		1
ii	<p>Point mark.</p> <p>Max 3 for one advantage.</p> <p>Accept explanation as description.</p> <p>Accept best two answers if more than two given.</p>	Do not accept generalised references without	4 (1+1)+(1+1) (1+1+1)+1

	<p>E.g. Seismometers record the strength of seismic waves (1). This can help build a picture of the potential threat caused by a future earthquake (1).</p> <p>Note: seismometers do not allow prediction of earthquakes.</p> <p>Hiding under desks can stop materials falling on you (1). This can prevent death or injury (1).</p>	context e.g. it is cheap = 0.	
E	<p>Point mark Max 3 without example (place specific - e.g. named volcano/volcanic area) - however no credit for the example. Max 3 if just described - (outline needed). An outline is a developed description or a brief explanation.</p> <p>Causes - e.g. reference to plate boundaries, focus, plate movement, rising magma, pressure build up etc.</p> <p>Icelandic eruption of 2010 occurred on the Mid Atlantic Ridge (1) a diverging plate boundary (1). Rising magma due to convection lead to erupting magma (1). The high level of ash in this eruption was due to the magma erupting through glacial ice (1).</p>	Effects	<p>4</p> <p>(1+1)+1+1</p> <p>(1+1)+(1+1)</p> <p>(1+1+1)+1</p>

Question Number	Acceptable Answers	Reject	Mark
5ai	<p>One mark for each country correctly drawn. The shading has to be representative of the key (if not max 1). Can plot in the incorrect order. Lines have to be correct, within a square.</p>		2
ii	Bangladesh		1
lii	The highest percentage of industrial waste is produced by France.		5

	<p>The highest percentage of agricultural waste is produced by Bangladesh.</p> <p>It has 50% agricultural waste.</p> <p>The only HIC with over 15% domestic waste is UK.</p>		
iv	<p>Point mark</p> <p>Allow developed points as description.</p> <p>An outline is a developed description or a brief explanation.</p> <p>E.g. HICs have more wealth therefore they can afford to purchase more products (1). These products often come with packaging (1) which is often disposed of and non recyclable (1) therefore it can end up in landfill (1).</p>	References to water and energy.	4 (1+1)+1+1
Bi	D –Toilet roll, large coffee, bottle of water, banana		1
ii	B – Large coffee		1
iii	B – used to make a product.		1
iv	<p>Point mark</p> <p>Can refer to anything from transport to lifestyle habits – mark each on their own merit.</p> <p>Max two marks for a list e.g. people reduce energy wastage through installing loft insulation and cavity wall insulation and doubled glazing (2).</p> <p>e.g. People can reduce energy wastage through installing double glazed windows (1) as they will reduce heat loss (1). Installation of loft insulation (1) which will reduce heat lost from roofs (1). This means that carbon footprint will be reduced as less energy is taken from the National Grid (1). People could cycle to work instead of driving (1). This will result in less petrol emissions (1) therefore reducing carbon output (1)</p>	<p>References to renewable energy supply/alternate supply methods.</p> <p>References to solid waste</p>	4 1+1+1+1

Question Number	Indicative content	
5(c)	<p>Must focus on managing waste (not energy) at a national scale. Candidate is likely to focus on recycling schemes, incineration plants, landfill sites or waste transfer to other countries.</p> <p>Examples of different types of waste include:</p> <p>i) Classifications of waste e.g. municipal, hazardous, toxic</p> <p>ii) Types within a classification e.g. glass, paper, garden, food.</p> <p>Marks will be awarded based on QWC</p>	
Level	Mark	Descriptor
	0	No rewardable material
Level 1	1-2	<p>Simple statements about waste management.</p> <p>Very basic use of geographical terminology, spelling, punctuation and grammar.</p>
Level 2	3-4	<p>Level two is reached by there being a clear link to managing waste in an HIC. The points will still be descriptive in nature.</p> <p>The top of the level is reached by there being a number of clear statements about waste management in an HIC. There will be no specific points.</p> <p>Candidates spell, punctuate and use the rules of grammar with considerable accuracy.</p>
Level 3	5-6	<p>Level three is reached by there being, in addition to description, an explanation of how waste is managed OR some specific locational detail.</p> <p>The top of the level requires an explanation and some specific locational detail about management or a number of explanations about management.</p> <p>Well communicated with good use of geographical terminology, spelling, punctuation and grammar.</p>

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	<p><i>Threshold performance</i></p> <p>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.</p>

SPaG Level 2	2	<p><i>Intermediate performance</i></p> <p>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.</p>
SPaG Level 3	3	<p><i>High performance</i></p> <p>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.</p>

Question Number	Acceptable Answers	Reject	Mark
6ai	One mark for each country correctly drawn. The shading has to be representative of the key (if not max 1). Can plot in the incorrect order. Lines have to be correct, within a square.		2
li	Bangladesh		1
lii	The highest percentage of domestic water use is produced by France . The highest percentage of agricultural water use is produced by Bangladesh . It has 60% of its water for agricultural. The only HIC with 75% industrial water use is UK .		5
Iv	Point mark Allow developed points as description. An outline is a developed description or a brief explanation. Allow 2 marks for a list. E.g. Countries with more wealth or higher stage of development generally use more water (1). This is because they can afford the infrastructure (1) such as piping to homes (1) which therefore gives people a better supply (1). People can also afford labour saving devices such as washing machines (1), these consume large amounts of water (1) which increase usage.	Mirror statements	4 1+1+(1+1)
Bi	D - Providing clean spring water		1
li	C - Water piped down a slope (gravity-fed supply)		1
iii	C - a sustainable water supply managed by communities.		1
iv	Point mark Allow developed points as description. An outline is a developed description or a brief explanation. Max 3 without example Max 3 without an outline. Reserve 1 mark for a specific example. Can be domestic; industrial or agricultural. e.g. metering (1) which tells you how much water a household is using (1); drip irrigation (1) where only the correct amount of water is fed to the		4 (1+1)+1+1 (1+1+1)+1 (1+1)+(1+1)

	plants (1) to reduce the impacts of evaporation (1). Water recycling in industrial plants (1) so that clean water is not taken out of river systems (1).		
Question Number	Indicative content		
6(c)	<p>Can refer to any example of water conflict between different areas such as River Colorado/Tigris-Euphrates which were examples of dam building leading to reduced supply</p> <p>Conflicts based on resource/land access/politics</p> <p>Emphasis on conflict not scheme</p> <p>Marks will be awarded based on QWC</p>		
Level	Mark	Descriptor	
	0	No rewardable material	
Level 1	1-2	<p>A basic answer</p> <p>Simple statements about water transfer scheme.</p> <p>Very basic use of geographical terminology, spelling, punctuation and grammar.</p>	
Level 2	3-4	<p>Level two is reached by there being a link to how a water transfer scheme can lead to conflict (may be implied). The points will still be descriptive in nature.</p> <p>The top of the level is reached by there being a number of clear statements about how a water transfer scheme can lead to conflict. There will be no specific points.</p> <p>Candidates spell, punctuate and use the rules of grammar with considerable accuracy.</p>	
Level 3	5-6	<p>Level three is reached by there being, in addition to description, an explanation of how the water transfer scheme leads to conflict OR some specific locational detail.</p> <p>The top of the level requires an explanation and some specific locational detail.</p> <p>Well communicated with good use of geographical terminology, spelling, punctuation and grammar.</p>	
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	<p><i>Threshold performance</i></p> <p>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.</p>	

SPaG Level 2	2	<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	3	<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.

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