

Mark Scheme (Results)

Summer 2015

Pearson Edexcel GCSE in 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 students at: www.pearson.com/uk

Summer 2015
Publications Code UG041636*
All the material in this publication is copyright
© Pearson Education Ltd 2015

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:
 - o How well does the response communicate the meaning?
 - What range of specialist terms is used?
 - o How accurate is the spelling, punctuation and grammar?

Question Number	Answer	Mark
1 (a)	1 mark for each valid statement.	(2) (1+1)
	Common responses likely to include:	
	 Convection currents cause the plates to move apart (1). Basaltic (low viscosity/runny) lava is erupted from the fissure (1) 	
	 Magma rises through the newly formed gap. (1) Basal lava travels long distance before solidifying/cooling to form a volcano (1) 	

Question Number	Correct Answer	Reject	Mark
1(b)	Maximum 2 marks available for identifying layers. Additional mark(s) awarded for extending statements. Common responses likely to include: Lithosphere – allow crust (1):	Sedimentary rock/layers/ plant etc.	(4) (1+1)+ (1+1) OR (1+1)+1 +1 OR (1+1+1) +1

Questi		ndicative content	
Primary/secondary division is arbitrary but primary effects are caused instantly by the earthquake. Common primary impacts often include: Death and injury Homelessness Buildings collapse Infrastructure damaged Landslides Fires. NB: Do not credit secondary impacts, eg. effects that develop in the hours, days and weeks following the earthquake, such as outbreaks of disease, food shortages, financial issues.		1	
Level	Mar	Description	
0	0	No acceptable response.	
1	1-2	At least one primary impact has been identified. Little, if and development. Limited structure to answer, basic use of geographical terminology.	У,
2	3-4	At least one appropriate location has been identified. At least one similarity or difference has been identified. Use of comparative language, eg. more, less etc. Some developed statements. Some structure, clearly communicated but with limited use of geographical terms.	
3	5-6	Answer includes a clear comparison (similarities and differences) of two named earthquakes. Primary impacts are described. Answer includes location specific details. Clear structure, well communicated with mostly sound use of geographical terms.	е

Question Number	Answer	Reject	Mark
2 (a)	Greater per person carbon emissions in the northern hemisphere (1)		(2)
	Additional mark by extending description through the inclusion of a named country(s) (1) or comparison using 2 figures (1).		(1+1)
	Or exceptions to rule, eg. Australia/India (1)		

Question Number	Correct Answer	Reject	Mark
2(b)	1 mark for each valid statement.	Reverse comments	(4)
	Common answers likely to include:		(1+1) +
	Temperature: • Warmest in the south (1) in the		(1+1)
	summer (1) • Warmest in the west in the winter (1)		OR
	Warmest in the lowlands (1)		(1+1) +1+1
	Or opposites relating to coldest.		OR
	Data to support any one point (1)		(1+1+
	Rainfall: • Wettest in the west (1)		1)+1
	Wettest in the highland (1) Or opposites relating to driest		
	Data to support any one point (1). Credit idea on continentally, eg. warmer on the coast in the winter (1).		
	Limit to 3 if only one pattern addressed.		

Question Number		cative content	
2*(c) QWC	• F	creation of salt marshes • Higher temperatures could result in vegetation changes and new wildlife migrations.	
Level	Mark	Descriptor	
0	0	No acceptable response.	
1	1-2	At least one UK relevant environmental impact of climate change identified. Little, if any, development. Limited structure to answer, basic use of geographical terminology.	
2	3-4	At least one UK relevant environmental impact of climate change has been explained. Some structure, clearly communicated but with limited use of geographical terms.	
3	5-6	Candidate clearly explains at least two UK relevant environmental impacts of climate change. Clear structure, well communicated with mostly sound use of geographical terms.	

Question Number	Answer	Reject	Mark
3 (a)	1 mark for identifying that the area has shrunk Additional mark for supporting evidence/further details, eg. replaced by forest type (1) or biome has moved north (1) or attempts to estimate/quantify eg. half the size. (1)	Descriptive statements focusing on alternative biomes.	(2) (1+1)

Question	Correct Answer	Reject	Mark
Number			
3(b)	1 mark for identifying a destructive human activity. Additional mark(s) awarded for developing statements.		(4) (1+1)
	Maximum of 2 marks for a list.		(1+1) + (1+1)
	Common answers likely to refer to: • Deforestation for timber (1) eg.		OR
	mahogany (1) causes soils erosion (1) habitat destruction (1) and food chain collapse. (1) • Mining (1) stripping off forest cover and/or poisoning of water		(1+1+ 1)+1 OR
	 supplies.(1) Conversion to farmland (1) is reducing biodiversity (1) through monoculture.(1) Man-made climate change (1) is lending to higher sea levels (1) or links to change in 		(1+1+ 1+1)
	temperature and/or rainfall (1) extended with an impact eg. drought becoming more common (1).		
	NB: Explanation is needed for full marks.		

Question Number		ative content
3 *(c) The binclud		oiosphere influences the hydrological cycle in many ways, ding:
	•	Vegetation transfers (transpiration) water to the air. Plants are a major water store. Vegetation slows surface runoff and through flow. Rainfall can be intercepted by vegetation, increasing rates of evaporation. Root systems increase rates of percolation. Organic matter increases the amount of moisture stored in the soil.
Level	Mark	Descriptor
0	0	No acceptable response.
1	1-2	An impact of the biosphere on the hydrological cycle has been identified. Little, if any, development. Limited structure to answer, basic use of geographical terminology.
2	3-4	An impact of the biosphere on the hydrological cycle has been explained. Some structure, clearly communicated but with limited use of geographical terms.
	5-6	Candidate clearly explains at least two impacts of the biosphere on the hydrological cycle. Clear structure, well communicated with mostly sound use of geographical terms.

Question Number	Answer	Reject	Mark
4 (a)	One mark for identifying a valid farming practice. Additional mark for giving an extending statement. Common responses likely to include: Excess usage of fertilisers(1) can lead to eutrophication.(1) Leaching of pesticides / herbicides(1) can poison river life.(1) Slurry /milk leaks (1) can lead to algae blooms. (1) Some farming practices, eg. upand-down ploughing (1) can result in silt being washed into rivers.(1) Intensive farming (1) boosts production through the widespread spraying of chemicals (1).	Answers which focus on non-farming sources of pollution.	(2) (1+1)

Question Number	Correct Answer	Reject	Mark
4(b)	 mark for identifying an appropriate benefit. Additional mark(s) awarded for extending statements. Common answers likely to include: More secure water supply (1). Increased availability of water (1) reducing journeys for collecting water (1). Built using traditional skills (1) and from local materials (1) therefore can be repaired by local people (1). Affordable to build/maintain (1). Little impact on natural water stores (1) and therefore minimal impact on the surrounding environment (1). Does not require expensive technology /fuel to run (1). NB. Named example might be location or type of technology. NB: As the command word is 'describe', at least one benefit must have been developed to attain full marks. 	Answers focused on large scale management schemes, such as dams and river diversions.	(4) (1+1)+ (1+1) (1+1+1) +1

Questio Number		cative content
4 *(c) QWC		
Level	Mark	Descriptor
0	0	No acceptable response.
1	1-2	At least one impact has been identified. Little, if any, development. Limited structure to answer, basic use of geographical terminology.
2	3-4	At least one impact has been explained. Some structure, clearly communicated but with limited use of geographical terms.
3	5-6	At least two impacts have been accurately explained. Clear structure, well communicated with mostly sound use of geographical terms.

Question Number	Answer	Mark
5 (a) (i)	1 mark for a valid landform. Common responses likely to include:	(1)
	 Stack Stump Wave-cut platform Cave Arch Headland Cliff 	

Question Number	Answer	Reject	Mark
5 (a) (ii)	1 mark for each valid statement.		(3)
	eg. The bay has been formed as a result of a discordant coastline (1) bands of rock of alternating resistance (1). The softer rock is eroded faster forming a bay (1) examples of hard and soft rock eg. sandstone and clay (1). eg. The soft rock has been eroded quicker than surrounding, more resistant, rocks (1). Examples of erosion eg. hydraulic action or abrasion (1)		(1+1+ 1)
	causing the coastline to retreat (1).		

Questio Number		cative content
*5(b) QWC i-ii-iii • Effective at stopping erosion • Lasts a long time • Requires little maintenance • Reduces seafront insurance fees • Promote coastline development • Creation of tourism attractions e.g. promenades Costs: • Expensive to construct and maintain • Can prevent access to the beach • Often considered visually unattractive • Usually takes a long time to construct • Tends to have a negative impact on the environment • Can transfer the erosion problem down the coastline		
Level	Mark	Descriptor
0	0	No acceptable response.
1	1-3	Answer briefly describes the costs and/or benefits of hard engineering. Some structure to answer and some relevant use of geographical terms.
2	4-6	Response describes both the costs and benefits of using hard engineering. The importance of various costs/benefits is likely to have been referred to. An appropriate location has been identified. Clear structure, clearly communicated, with relevant use of geographical terms.
3	7-8	Answer examines the costs and benefits of hard engineering. Response includes location 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 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 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	3	High performance
Level 3		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)	1 mark for a valid reason. Common responses likely to include: • High risk of flooding/ flood plain/ flood zone (1) • Important transport links (1) • Valuable land (1) • Urbanised location (1) • Business nearby (1) • Densely populated (1) • School (1) • Confluence (1)		(1)

Question Number	Answer	Reject	Mark
6 (a) (ii)	 1 mark for each valid statement. Excess river water floods the washland (1). Therefore the river's discharge is reduced or equivalent idea (1). The channel downstream is now able to contain the river's flow (1). The excess water is stored until river levels falls (1). Infiltration into washland (1) 		(3) (1+1+1)

Questio Number		cative content
*6 (b) QWC i-ii-iii		logy and slope processes significantly impact on river valley be.
	form the band can	plogy: Resistant rock in the upper course can lead to the nation of interlocking spurs. Differing rock strength can affect steepness of v-shaped valleys. Where the river flows over ds of hard and soft sock, waterfalls may form, which over time lead to the formation of vertical valleys- a gorge. Tectonic ft can lead to rapid down-cutting and gorges.
	grad wea whice the	pe processes mainly impact on the upland river. Steep dients are affected by mass movement, which transports thered materials down the slope and weathering processes the affect the shape of the slope. Slope processes are crucial in formation of v-shaped valleys. Impact of mass movement reases downstream as valley gradients become gentler.
	Soil	cific types of slope process can lead to unique valley features. creep can result in terraces, a stepped slope. Landslides and nping can lead to the development of valley side cliffs.
		erial moved down slope by mass movement can also lead to a d-up of scree at the base of the valley.
Level	Mark	Descriptor
0	0	No acceptable response.
1	1-3	The impact of geology or slope processes or awareness of some changes to valley shape has been briefly described. Unbalanced answer. Some structure to answer and some relevant geographical terms.
2	4-6	Response describes both the impact of geology and/or slope process on valley shape. Clear structure, clearly communicated, with relevant use of geographical terms.
3	7-8	Answer examines the importance of geology and slope processes on valley shape. Refer to importance of each factor in determining the valley's shape. 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 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 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
7 (a)	1 mark for each descriptive statement.		(2)
	1 mark for supportive graph reading.		(1+1)
	eg. The area of marine reserves has increased (1). The area covered by marine reserves increased by approximately 3.5 million km ² (1) or increased from 1.5 million km ² - 5 million km ² (1) or increased rapidly from 2009- 2010 (1) or increase was gradual to steep (1).		

Question Number	Answer	Mark
7 (b)	1 mark for a basic definition.	(2) 1+1
	e.g. It shows what animals eat (1) or many food chains together (1)	
	1 mark for appropriate examples for a web, eg. arctic food web with krill eaten by squid and whales. Food chain example is not acceptable.	
	1 mark for a detailed definition.	
	e.g. It shows the flow of energy (1) between producers and consumers (1). e.g. The links between animals and plants feeding on each other (1) in an ecosystem (1).	

Question Number	Indica	Indicative content		
QWC explanation of how and why this has changed		,		
		bution of fragile coastal environments has been affected by ge of human activities including:		
	Nega	tive:		
	 Ecosystems have been cleared to make way for coastal developments. Pollution from coastal settlements has degraded water quality. Changing farming practices have led to marine eutrophication and the siltation of coastal habitats. Marine habitats have been cleared to improve access for shipping and increase trade. Over-fishing has led to food chain imbalances. Tourism activities, such as scuba diving, have led to the direct destruction of fragile marine environment. Positive: National Parks and reserves had protected some coastal environments. Conservation efforts have led to the reinstating of lost ecosystems. 			
		ternational agreements have banned some destructive tivities from fragile eco-systems e.g. RAMSAR.		
Level	Mark	Descriptor		
0	0	No acceptable response.		
1	1-3	Answer briefly describes the impact of at least one human activity. Some structure to answer and some relevant use of geographical terms.		
2	4-6	Response describes the impact of at least two human activities. Candidate outlines the importance of at least one action. Response is likely to include named examples. Clear structure, clearly communicated, with relevant use of geographical terms.		
3	7-8	Answer explains the impact of a range human activities, making strong links to the processes that have caused the changing global distribution. Response is likely to include location specific content. addressing changes in distribution. 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 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 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
8 (a) (i)	1 mark for each descriptive statement.		(2)
	1 mark for supporting evidence or development from graph.		(1+1)
	eg.The mean maximum temperature falls (1) by 11° C/ from 30° C - 19° C (1)		
	(2 x 1)		

Question Number	Answer	Reject	Mark
8 (a) (ii)	1 mark for defining the term. Additional mark for development such as a cause,		(2)
	affected location or an impact.		(1+1)
	eg. Desertification refers to the expansion of arid areas (1) such as the spread of the Sahara in the Sahel (1) Spread into scrubland/ savannah (1)		
	Or two-part definition: eg. Desertification is reduction of vegetation/biomass (1) because of reducing rainfall and/or higher temperatures (1). Turning into a desert (1)		
	Cause, e.g. over grazing (1)		

Questio		cative content	
*8 (b) QWC i-ii-iii		ming: Polar - Greenhouses, Ultraviolet lights, artificial heating. Hot Arid – Irrigation, drought resistant varieties, water management schemes, multi-cropping.	
	Buil	Idings: Polar – Insulated, built on stilts, triple glazed, steep roofs. Hot Arid – Small windows, built underground, light colours.	
	Clot	 thing: Polar – Thermal materials, little skin showing. Hot Arid – Loose fitting, light colours, face protection from sun. 	
	Ene	Prgy: Polar – Geothermal (where possible) Hot Arid – Solar.	
Level	Mark	Descriptor	
0	0	No acceptable response.	
1	1-3	Answer briefly describes at least one way people have adapted to cope in an extreme environment. Some structure to answer and some relevant use of geographical terms.	
2	4-6	Response describes at least two ways people have adapted to survive in their extreme climate. Candidate outlines how the adaptation helps survival. Response is likely to include named examples. Clear structure, clearly communicated, with relevant use of geographical terms.	
3	7-8	Answer explains a range of adaptations taken to ensure survival in an extreme environment. Response is likely to include 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 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 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	3	High performance
Level 3		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.