

General Certificate of Secondary Education January 2012

Geography B

40352H

(Specification 4035)

Unit 2: Hostile world (Higher)

Post-Standardisation

Mark Scheme

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all examiners participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for standardisation each examiner analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, examiners encounter unusual answers which have not been raised they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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General Certificate of Secondary Education

AQA GEOGRAPHY B

HIGHER TIER MARKING SCHEME

UNIT 2 (40352H)

GENERAL GUIDANCE FOR GCSE GEOGRAPHY ASSISTANT EXAMINERS -

Quality of Written Communication

Where candidates are required to produce extended written material in English, they will be assessed on the quality of written communication.

Candidates will be required to:

- present relevant information in a form and style that suits its purpose;
- ensure that text is legible and that spelling, punctuation and grammar are accurate
- use specialist vocabulary where appropriate.

Levels Marking - General Criteria

Where answers are assessed using a level of response marking system the following general criteria should be used.

Level 1: Basic

Knowledge of basic information

Simple understanding

Little organisation; few links; little or no detail; uses a limited range of specialist terms Reasonable accuracy in the use of spelling, punctuation and grammar Text is legible.

Level 2: Clear

Knowledge of accurate information

Clear understanding

Organised answers, with some linkages, occasional detail/exemplar; has a good range of specialist terms where appropriate

Considerable accuracy in spelling, punctuation and grammar

Text is legible.

Level 3: Detailed

Knowledge of accurate information appropriately contextualised and/or at correct scale

Detailed understanding, supported by relevant evidence and exemplars

Well organised, demonstrating detailed linkages and the inter-relationships between factors.

Clear and fluent expression of ideas in a logical form; uses a wide range of specialist terms where appropriate

Accurate use of spelling, punctuation and grammar

Text is legible.

Annotation of Scripts

- One tick equals one mark, except where answers are levels marked (where no ticks should be used). Each tick should be positioned in the part of the answer which is thought to be credit-worthy.
- Where an answer is levels marked the examiner should provide evidence of the level achieved by means of annotating 'L1' or 'L2' in the left-hand margin.
- The consequent mark within this level should appear in the right-hand margin.
- Ticks must not be used where an answer is levels marked.
- Examiners should add their own brief justification for the mark awarded, e.g. *Just L2*, reasonably accurate knowledge or some clear understanding.
- Where an answer fails to achieve Level 1, zero marks should be given.

General Advice

Marks for each sub-section should be added in the right-hand margin next to the maximum mark available which is shown in brackets. All marks should then be totalled in the 'box' at the end of each question in the right-hand margin. The totals should then be transferred to the boxes on the front cover of the question paper. These should be totalled. The grand total should be added to the top right-hand corner of the front cover. No half marks should be used.

It is important to recognise that many of the answers shown within this marking scheme are only exemplars. Where possible, the range of accepted responses is indicated, but because many questions are open-ended in their nature, alternative answers may be equally creditworthy. The degree of acceptability is clarified through the Standardisation Meeting and subsequently by telephone with the Team Leader as necessary.

Diagrams are legitimate responses to many questions and should be credited as appropriate. However contents which duplicate written material or vice versa should not be credited.

Quality of Written Communication (QWC) is part of the award of marks in levels marked answers only. In levels marked answers the quality of the geography is assessed and a level and mark awarded according to the geography. As is sometimes the case, the geography may be sound at a particular level but the examiner may not be sure as to whether there is quite enough to raise the mark within that level. In this case the examiner should consider the QWC of the answer. QWC that fulfils the criteria for the level should lead to the rise in the mark but where the QWC does not fulfil the criteria, the answer should remain at the mark first thought appropriate. In cases where QWC has been used in the award of marks, the examiner should indicate this with QWC and arrows that indicate either an upward or downward trend according to its impact on the final award of the mark.

SECTION A LIVING WITH NATURAL HAZARDS

1(a)(i)	2x1 There are many active volcanoes close to plate boundaries. Accept more in N. Hemisphere. There are many active volcanoes in the west of South America / Pacific ring / mid-ocean ridges etc. Accept anomalies. Recognises that more are on destructive boundaries/fewer on other types of boundary.	(2 marks)
1(a)(ii)	Level 1 (Basic) 1-3 marks Gives a basic idea of plate movement and/or physical process. Elaboration is very limited, e.g. <i>Plates are moving apart. Magma rises up from below the earth's crust.</i> Reference to constructive plate boundary or physical process, e.g. <i>New rock is being forced up. Not 'destructive plate boundary' and not 'plate boundary' on its own (0 marks)</i> Credit names of plates from Figure 1 once only. Knowledge of basic information. Simple understanding. Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors. Level 2 (Clear) 4-5 marks Gives a clear indication of process, linking statements, e.g. <i>On a constructive plate boundary where plates are moving apart. As the North American and the Eurasian plates move apart, volcanic eruptions occur as magma rises from the mantle.</i> Knowledge of accurate information. Clear understanding. Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate. Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.	(5 marks)
1(b)(i)	2x1 On the coast, 50km +/- 10km (accept 40-60km) from the city of Concepcion (or gives distance/direction from other major cities). e.g. 100km from Parral Not 'on a plate boundary.'	(2 marks)

1(b)(ii)	Accept lifts from Figure 2 and effects that can be inferred from Figure 2.	(4 marks)
	Level 1 (Basic) 1-2 marks The following lifts from Figure 2 are acceptable;	
	 The President said that money that should have been used for development projects would now have to be used to rebuild houses, hospitals, schools and roads. Rebuilding will take years. Will cost at least £20bn which represents nearly 20% of Chile's GDP. 	
	'Ports were hit' Airports damaged/closed'	
	Other statements from Figure need a simple link to how the economy is affected.	
	e.g. 'collapsed bridge will cost a lot to repair' 'shops looted and will lose business' 'will have to pay for repair to houses'	
	Level 2 (Clear) 3-4 marks Gives a clear idea of the effects on the economy of Chile by lifting points from the resource and then developing clearly to show their effect on the economy OR clearly links statements/effects together to show cumulative affect. Knowledge of accurate information. Clear understanding. Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate. Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.	
1(c)	3 x 1 codes, wealth, responses.	(3 marks)
1(d)	2 x 1 + 1 They could use simple, cheap flexible materials (1) such as the bamboo houses (1). They could have moulds for making hollow concrete bricks (1) which cause less damage if they fall (1). They could have basic education programmes in schools (1) that teach people to head for open ground if outdoors (1) or to drop, cover and hold on if indoors (1). Earthquake emergency kit = max 1	(4 marks)

2(a)(i)	2x1 Two descriptive points: direction (1),travel between 2 points/ named places/distance from a location/latitude and longitude (1).	(2 marks)
2(a)(ii)	Level 1 (Basic) 1-4 marks Simple statements without development of ideas.	(8 marks)
	Yes: It's only a prediction, the hurricane could change direction and veer straight towards Louisiana. Some of the hurricane warning is for Louisiana. They will still get strong winds. It's better to be safe than sorry. Some of Louisiana is inside the cone of uncertainty/three day predicted path. Accept – it could kill many people/for safety/just in case/will get 117kph wind.	
	No: the hurricane will not pass over Louisiana. Louisiana will not receive the strongest winds. Only a small part of Louisiana would be affected. It is only the coast that would be affected. Evacuation would be expensive. They should just prepare their homes.	
	Knowledge of basic information. Simple understanding. Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.	
	Level 2 (Clear) 5-6 marks Clear development of ideas.	
	Yes: the hurricane could change direction, plus an e.g. of a hurricane that changed track unexpectedly (Hanna, Haiti) or development of the unpredictable nature/unreliability of forecasting. Or case study development of a hurricane/tropical storm that caused much damage when evacuation did not take place. Development of a storm surge idea along coastal Louisiana.	
	No: Development of ideas that only some parts of Louisiana will be hit. Clear description of these areas (good use of scale and/or direction). Development of reasons why evacuation of most threatened areas. Development of what alternative actions can be taken, e.g. how houses could be prepared for strong wind and rain. Can be a combination of a Yes and No answer, i.e. some areas (coastal, western) should not be evacuated, plus a reason why, e.g. loss of energy as hurricane moves inland. 'Yes' for some parts of LA and 'No' for others.	
	Knowledge of accurate information. Clear understanding. Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate. Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.	

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Level 3 (Detailed) 7-8 marks

Sustained development of points.

Yes: detailed explanation of why hurricanes change course/ forecasting is unreliable or detailed case study exemplar of a hurricane/tropical storm that has changed track. Detailed development of the effect of storm surge on coastal areas and/or use of case study example.

No: detailed use of resource. Detailed reasons why only some parts of Louisiana will be affected. Detailed explanation of alternative actions that could be taken and/or use of case study example. Detailed explanation of why some areas affected less (detailed yes and no answer). Inland areas affected less and detailed reasons why hurricanes diminish following landfall.

Own knowledge of accurate information appropriately contextualised and/or at correct scale.

Detailed understanding, supported by relevant evidence and exemplars. Well organised, demonstrating detailed linkages and the inter-relationships between factors.

Range of ideas in a logical form; uses a range of specialist terms where appropriate.

Well structured response with effective use of sentences. Few spelling, punctuation and grammatical errors.

2(a)(iii) Level 1 (Basic) 1-2 marks

(4 marks)

Simple statements without development. E.g. many people go on holiday to the coast, many large cities, many people live on the coast. Accept large fishing, industry/ports. Accept 'lots of hurricanes' 'warm sea temperatures.' Knowledge of basic information.

Simple understanding.

Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.

Level 2 (Clear) 3-4 marks

Clear development to show why the cost of damage from tropical storms (hurricanes) in the coastal strip of the southern USA is very high, e.g. People are affluent and take holidays on the coast and there are expensive hotels built which cost a lot of money to repair. Accept developed ideas about warm sea temperatures linked to damage/strength.

Knowledge of accurate information.

Clear understanding.

Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate.

Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.

3(a)(i)	1x1 9° (accept 8°-10°)	(1 mark)
3(a)(ii)	Level 1 (Basic) 1-2 marks Simple statements without development of ideas, e.g. They are caused by drought. Vegetation dries out. They are caused by high temperatures. Fanned by dry strong winds OR, they are caused by arsonists. i.e. no links between points. (Accept references to global warming/climate change.)	(6 marks)
	Lightening strikes need qualification Effects of gunfire/pylon need qualification, Other human factors, BBQs, campfires, cigarette ends, glass bottle fragments etc. Knowledge of basic information. Simple understanding. Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.	
	Level 2 (Clear) 3-4 marks Clear explanation of relationships with development of ideas, e.g. They are caused by drought as the vegetation dries out due to lack of rain and provides fuel for the wildfire. They are caused deliberately by arsonists for reasons such as insurance claims or land use disputes OR, they are caused accidentally by sparks from machinery (mending pylon)/engines/railway wheels/gunfire which ignite the tinder dry vegetation. People discard lit cigarettes by throwing them out of car windows and they set light to grass at the side of the road, i.e. links between points. Glass acts as a magnifying glass. Development could be case study examples, e.g. wildfires are fanned by strong winds of up to 100kph. This is similar to the dry Santa Ana winds which spread wildfires across California in 2007. Or clear references to the climate graph to support the point.	
	Accept references to dry vegetation once only. Own knowledge of accurate information. Clear understanding. Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate. Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.	

3(a)(ii) Level 3 (Detailed) 5-6 marks

Detailed linkages between climate graph and explanation of relationships with continued development of ideas. Continued development could be case study examples, e.g. They are caused by drought. The summer temperatures are high with no rainfall recorded between 14-25 July; this causes the vegetation to dry out due to lack of rain and provides fuel for the wildfire. Wildfires are fanned by strong winds of up to 60kph. This is similar to the Santa Ana winds which are dry winds blowing from high pressure areas over the desert, they bring no rain but rapidly spread wildfires, as they did across California in 2007 OR, they are caused deliberately by arsonists for reasons such as land use dispute, this is often to enable money-making development schemes to go ahead more easily. People throw away glass bottles which get broken and the glass fragments act as a lens to focus light rays into a small area, concentrating the heat from the sun and setting fire to the grass or forest debris.

Own knowledge of accurate information appropriately contextualised and/or at correct scale.

Detailed understanding, supported by relevant evidence and exemplars. Well organised, demonstrating detailed linkages and the inter-relationships between factors.

Range of ideas in a logical form; uses a range of specialist terms where appropriate.

Well structured response with effective use of sentences. Few spelling, punctuation and grammatical errors.

3(b) Level 1 (Basic) 1-3 marks (5 marks) Lifts information from Figure 5 without development, e.g. *Police ordered* 5000 people to be evacuated. Firemen killed. 200 hectares of pines and olive trees destroyed. A high-speed rail service was cancelled. Global warming. Not all ideas need come directly from Figure 5. Simple statements without development of ideas, e.g. much housing/ natural vegetation is destroyed. Knowledge of basic information. Simple understanding. Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors. Level 2 (Clear) 4-5 marks Clear description of effects with development of ideas, e.g. Police ordered the town to be evacuated which costs a lot of money to organise and drains the areas resources. 200 hectares of pines and olive trees destroyed, the olives are a valuable crop and farmers may lose their livelihoods. Description does not have to come from Figure 5. Development must be case study example or clear development beyond Figure 5. Accept positive effects. Knowledge of accurate information. Clear understanding. Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate. Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors. Max 4 marks for people or environment only. 3(c) 4×1 (4 marks) (or 1 + 1 for a developed point) (or 1 + 1 or a well developed point) Teach people about the dangers of campfires etc. Enable people to develop household evacuation plans/listen to the radio/check the internet for wildfire reports, etc. Understand ways in which they could protect their houses, e.g. move firewood/thin trees/clear leaves from near houses, build roofs from fire retardant materials, etc. Accept methods of preventing wildfires starting. Accept public information schemes e.g. leaflets, notices to evacuate etc.

SECTION B THE CHALLENGE OF EXTREME ENVIRONMENTS

4(a)(i)	2x1 Any 2 descriptive points, e.g. Most areas with a very high risk from desertification are on the fringes of hot deserts. There are areas with a very high risk from desertification in 6 continents. Most areas with a very high risk from desertification are in Africa. Most of the areas at risk from desertification are found to the north of the Equator. Accept more around/by the Tropics/ within the Tropics (Max 1). Reject: Most are on the Tropic of Cancer	(2 marks)
4(a)(ii)	Level 1 (Basic) 1-2 marks Simple statements without development of ideas. Some simple reference to the effect of latitude, e.g. Sun's rays passing through less of the atmosphere. A smaller area of the earth's surface has to be heated. And/or some simple reference to reasons for low rainfall; dry winds, rainshadow, etc. Accept simple statements about high pressure or descending air or little condensation or few clouds, i.e. not linked. Knowledge of basic information. Simple understanding. Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors. Level 2 (Clear) 3-4 marks Clear reasons for the formation with development of ideas. Clear reference to the effect of latitude, e.g. Sun's rays passing through less of the atmosphere and therefore lose less heat. A smaller area of the earth's surface has to be heated due to the lesser curvature of the earth. Accept clear statements about high pressure or descending air leading to little condensation and few clouds, i.e. linked. Knowledge of accurate information. Clear understanding.	(4 marks)
4(b)(i)	2x1 Any 2 descriptive points, e.g. Fluctuates, above average 1950-1965, period of prolonged drought (deficit) 1976-1988, above average after 1998.	(2 marks)

(6 marks)

4(b)(ii) Level 1 (Basic) 1-2 marks

Simple statements without development of ideas, e.g. Simple references to the causes of desertification, **either** human **or** natural, e.g. Less rainfall, higher temperatures, the climate is changing, part of a natural cycle of climate change. Or, Human factors, e.g. (The population is increasing and people chop down trees for fuel wood) people keep too many animals on the land, which eat all the grass people grow too many crops on the land removing nutrients people now live in permanent settlements etc.

No credit for repeating the terms from Figure 7. Knowledge of basic information.

Simple understanding.

Few links; limited detail; uses a limited range of specialist terms.

Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.

Level 2 (Clear) 3-4 marks

Clear references to the cause of desertification, **either** human **or** natural. Clear development of the point, i.e. how it leads to desertification. e.g. Less rainfall, higher temperatures which lead to increased evaporation/increased drought, or rainfall becoming more irregular. The climate is changing; this is part of a natural cycle of climate change, the area on the fringe of the Sahara used to be much wetter, it may become so again.

Or human factors: e.g. There is a rapid rate of population growth/population density increasing and more people chop down more trees for fuel wood/keep too many animals on the land/grow too many crops on the land, and how this could be through linkages e.g. links overpopulation to over cultivation due to demand for increased food. Increases the pressure on the land etc.

May state a cause and develop the effect of this, e.g. more people chop down trees for fuelwood/keep too many animals on the land/grow too many crops on the land which means that the protective cover of vegetation is removed and soil is blown/washed away.

Knowledge of accurate information.

Clear understanding.

Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate.

Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.

Level 3 (Detailed) 5-6 marks

Detailed references to the causes of desertification, human **or** natural. Continued development of the point, i.e. how it leads to desertification, e.g. Less rainfall, higher temperatures which lead to increased evaporation/increased drought, or rainfall becoming more irregular, this means that vegetation dies and soils dry out and removed by soil erosion. The climate is changing; this is part of a natural cycle of climate change as ocean currents and patterns of winds change. This affects rainfall; in the past, the area on the fringe of the Sahara used to be much wetter, it may become so again as the cycle comes out of a dry period into a wetter one.

Or, human factors, e.g. There is a rapid rate of population growth/population density increasing and more people chop down trees for fuelwood + why/keep too many animals on the land + why/grow too many

crops on the land + why, people now live in permanent settlements whereas in the past they were nomadic pastoralists; this increases the pressure on the surrounding countryside as they are no longer using the resources from a large area of land etc. May state a cause and develop the effect of this, e.g. more people chop down trees for fuelwood/keep too many animals on the land/grown too many crops on the land which means that the protective cover of vegetation is removed and the soil retains less moisture and dries out. Also the roots are no longer there to bind the soil together and soil is open to erosion and is blown/ washed away. Continued development could be case study examples. Knowledge of accurate information appropriately contextualised and/or at correct scale. Detailed understanding, supported by relevant evidence and exemplars. Well organised, demonstrating detailed linkages and the inter-relationships between factors. Range of ideas in a logical form; uses a range of specialist terms where appropriate. Well structured response with effective use of sentences. Few spelling, punctuation and grammatical errors. 4(c) 4×1 (4 marks) E.g. Magic stone lines (1) use local, cheap materials (1) to manage the soil. E.g. Energy efficient stoves (1) mean that fewer trees have to be removed for fuel wood (1). It is sustainable (1). Accept references to low income, able to maintain/ operate making the technology appropriate. List of methods = max 2 eg Stone lines, earth bunds, terraces, gulley plugs...) Allow one mark for an explanation of how the method reduces desertification.

5(a)	2×1	(2 marks)
, ,	Completed at Zimbabwe = 3% Others = 31% = 1 mark	, ,
	Shading/labels = 2 nd mark	
5(b)	Level 1 (Basic) 1-2 marks Simple statements without development of ideas. These can be from Figure 9 e.g. low GNI, rapid population growth, many new roads built (Not just quoting the data) or simple statements from own knowledge. Knowledge of basic information. Simple understanding.	(4 marks)
	Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.	
	Level 2 (Clear) 3-4 marks Clear suggestions with development of ideas, (e.g. people are poor and have to remove forest to grow food/make money. The population is increasing so more forest has to be cleared to get enough food. The roads make it easier to get into the forest. The forest products are worth a lot of money to the country, so they keep cutting down trees.) Continued development of one point can access top of level 2 e.g. the very low GNI shows that DRC is a less developed country and they will depend on exporting primary products to earn money. Many people have to grow their own food and slash and burn methods clear large areas of forest for agriculture. Logging roads open up the forest by improving access for large trucks that carry logs out of the forest. Development may be case study examples.	
	Knowledge of accurate information. Clear understanding. Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate. Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.	
5(c)	Level 1 (Basic) 1-4 marks Simple statements without development of ideas.	(8 marks)
	No: Gives a simple reason against, e.g. costs too much, takes too long for trees to grow back, never grow back properly, a lot of the area is still deforested or accept ideas that refer to lack of funding for e.g. not a rich country. Accept ideas that refer to continued deforestation, e.g. They need the income from logging. They sell forest products abroad. They need the jobs.	
	Yes: Gives a simple reason for e.g. sustainable, relatively cheap to undertake, provides jobs for local people, helps us to find out more about the forest ecosystem, etc. Accept general references to reducing CO2, e.g. trapping carbon helps in the fight against global warming. Accept general references to other valid points. E.g. It will save rare animals. It will bring in money from tourism etc.	

Knowledge of basic information.

Simple understanding.

Few links; limited detail; uses a limited range of specialist terms.

Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.

Level 2 (Clear) 5-6 marks

Clear development of ideas.

No: Develops the idea to show clear reason against.

E.g. Takes too long for trees to grow back and a much quicker solution is needed and they never grow back properly and will not support the same wildlife population.

Accept clear references to the relative merits of other approaches to manage areas of tropical rainforest (conservation, sustainable use schemes, etc.)

E.g. They should not waste time on replanting trees that might not recreate the forest and they should use the money to conserve what forest is left. Or accept ideas that refer to lack of funding.

E.g. Costs too much, not a rich country and have other priorities.

Development could link to ideas that refer to continued deforestation, E.g.

They have few alternative sources of earning money; the developed countries removed their forests to earn money, so why not the developing countries, e.g. The rainforest is a valuable source of raw materials which can be exported. The forest will have to be removed to access the valuable mineral reserves in the ground beneath them so that the country can develop its economy.

Development might be a reference to the idea that these activities could still continue, but in a way which is more sustainable.

Yes: Develops the idea to show clear reason for e.g. sustainable as it provides jobs for local people growing trees in the nursery and if they have jobs they will have less need to chop down the forest, relatively cheap to undertake as they are a poor country who might not be able to afford more expensive conservation schemes, the research centre helps us to find out more about the forest ecosystem and will help us to preserve the secondary forest etc.

Accept general references to reducing CO2, e.g. trapping carbon helps in the fight against global warming, the forest acts as a carbon sink and also adds oxygen to the atmosphere.

Accept general references to other valid points, e.g. It will save rare animals as their habitat will be restored and lessens the chance of extinction etc. It will bring in money from tourism. This money will help to fund the project etc.

Knowledge of accurate information.

Clear understanding.

Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate.

Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.

5(c) Level 3 (Detailed) 7-8 marks

Detailed description of methods. Detailed use of examples of methods of tropical rainforest management studied. There should be a clear sense of place.

No: Detailed description of any problems/shortcomings associated with the scheme in Figure 10, or a detailed use of a case study to show shortcomings.

There are other schemes that are much better, such as The Samboja Lestari Project in Borneo. This is a better attempt to restore a damaged environment. Over 500 000 trees have been planted in total and 130 species of animals have returned to the area. Sanctuaries have been set up for orang-utans and the endangered sun bear. It also is the best method as it has other benefits. Rainfall has increased by 25%, due to increased cloud cover. Water can infiltrate the soil, reducing soil erosion and preventing floods and landslides. The visitors to the Education Centre learn about conservation and the eco-lodge brings in money from tourism. Local people can earn money through employment in the plant nurseries, animal sanctuaries and by tree planting and road building. People are trained and can learn new skills. They use waste wood from the project to make handicrafts which are sold online around the world. Agroforestry schemes allow people to grow fruits and vegetables such as melons and pineapples. These ensure a food supply and are also sold for animal food. Sugar palms have also been planted around the edge of the project and there are plans for a sugar refinery to be built and for ethanol to be produced to a fuel source. The sugar palms do not burn easily and protect the project from wildfires. Sustainable livelihoods have been created for 3000 people. reducing unemployment, raising income and improving the living conditions and health of the people. In this way, conservation and the needs of local people do not come into conflict. This offers an alternative to the people, so that they do not have to clear the forest any more.

Yes: Detailed description of benefits associated with scheme in Figure 10 or a detailed use of a case study to show benefits of schemes of this type. E.g. Some conservationists feel that the money spent on recreating new tropical rainforest in schemes such as the Samboja Lestari Project in Borneo could be better spent on protecting that which remains on the island. In addition to protecting areas of tropical rainforest, some people believe that it is crucial to also restore areas of forest. They encourage the replanting of native species of trees, even though it is costly. They believe that the costs should be met by the governments of developed countries, NGOs and private companies and that the two methods should operate side by side. Some scientists believe that by showing tropical rainforest can be recreated in Borneo this will merely encourage the deforestation of areas of untouched forest. The developers will simply say that once they have exploited an area, they will ensure that it is regrown. Some scientists say that Samboja Lestari Project will never be able to recreate the tropical rainforest and that even if it is successful it will take at least 500 years to develop the complex inter-relationships found in a natural tropical rainforest ecosystem.

Knowledge of accurate information appropriately contextualised and/or at correct scale.

Detailed understanding, supported by relevant evidence and exemplars.

Well organised, demonstrating detailed linkages and the inter-relationships between factors.

Range of ideas in a logical form; uses a range of specialist terms where appropriate.

6(a)(i)	3 x 1 high, southern, margins	(3 marks)
	mgn, southern, margins	
6(a)(ii)	Level 1 (Basic) 1-3 marks Simple statements without development of ideas. Some simple reference to the effect of latitude, e.g. sun's rays passing through more of the atmosphere. A larger area of the earth's surface has to be heated. Accept references to altitude, e.g. There is much highland (Antarctica). Accept simple statements about cold winds and lying snow and simple references to continentality (Antarctica). Accept simple statements about high pressure or descending air or little condensation or few clouds, i.e. not linked. Knowledge of basic information. Simple understanding. Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors. Level 2 (Clear) 4-5 marks	(5 marks)
	Clear explanation with development of ideas, e.g. sun's rays passing through more of the atmosphere and therefore lose heat. A larger area of the earth's surface has to be heated due to the curvature of the earth. Accept clear references to altitude, e.g. There is much highland (Antarctica) and with increased height the temperature drops about 1°C per 100 metres. Accept clear statements about frequent cold katabatic winds and snow cover reflecting heat and clear references to effect of continentality Antarctica). Knowledge of accurate information. Clear understanding. Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate. Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.	
6(b)	3x1 Any 3 descriptive points, 'It increased' – 1 mark. By 33,000 – 1 mark. e.g. Low (1000) in 1980, started to increase in 1985 and up to 12000 by 1990, sharp increase after 2000, 34 000 in 2010. Accept "more scientists", "more people are coming to ski/ ice walk".	(3 marks)
6(c)	2x1 Mass tourism is increasing sea and coastal pollution as more and bigger ships. The scale and spread of tourist activities such as skiing is damaging flora and fauna, disrupting breeding patterns and interfering with sensitive research activities, etc. Accept 'scientists' as visitors.	(2 marks)

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6(d) Level 1 (Basic) 1-3 marks

(5 marks)

Simple statements without development of ideas. There is an Antarctic Treaty. General statement of benefits, e.g. countries will work together. Other countries will not go against the majority. Agreements help to draw up strict rules. They can help to ban harmful activities. Simple suggestion as to what treaty/treaties entail, e.g. nuclear testing is banned, mining is banned, territorial claims are laid aside by member countries, fishing quotas are introduced, tourist numbers/activities are limited, etc.

Knowledge of basic information.

Simple understanding.

Few links; limited detail; uses a limited range of specialist terms. Limited evidence of sentence structure. Frequent spelling, punctuation and grammatical errors.

Level 2 (Clear) 4-5 marks

Clear explanation of methods with development of ideas.
e.g. 46 countries will work together under the Antarctic Treaty. Other
countries will not go against the majority as the counties represent 80% of
world population. Agreements help to draw up strict rules,
e.g. mining is banned for at least the next 50 years. Nuclear testing is
banned as the Antarctic is a natural reserve devoted to peace and science,
fishing quotas are introduced which means the industry is strictly regulated
and once the quota is reached no more fish can be taken, tourist
numbers/activities are limited under an agreement by IAATO etc. May be
examples of actual internationally agreed schemes, e.g. a permit is needed
to enter an ASPA (Antarctic Special Protected Area). Human activities are
very closely monitored in an ASMA (Antarctic Special Managed Area).
Sites are preserved for the future in an HSM (Historic Sites and
Monuments).

Development may be case study examples from any cost environment. Knowledge of accurate information.

Clear understanding.

Answers have some linkages; occasional detail/exemplar; uses some specialist terms where appropriate.

Clear evidence of sentence structure. Some spelling, punctuation and grammatical errors.