GCE

Geography

Advanced GCE

Unit **F763:** Global Issues

Mark Scheme for January 2012

Annotations used in the detailed Mark Scheme

Annotation	Meaning
	Unclear.
	Omission mark.
	Issue identified (Section A).
	Strategy identified (Section A).
	Irrelevant, a significant amount of material that does not answer the question.
	Level one.
	Level two.
	Level three.
	No examples.
	Rubric infringement.
	Correct point.
	Highlighting an issue eg irrelevant paragraph. Use in conjunction with another stamp eg or
	Point has been seen and noted.
	Evaluative point / paragraph.

MARK SCHEME

Question			Answer	Marks	Guidance
1–6			Candidates should receive credit for a particular issue identified in the resource or a broader generic issue. However, this latter issue **must** originate from the resource, such as secondary impacts of hazards. Strategies **must** be **appropriate** to the particular issue identified for Levels 2 and 3.		For each question in Section A: AO1 Knowledge and understanding accounts for 4 marks AO2 Analysis, interpretation and evaluation accounts for 4 marks AO3 Investigate, conclude and communicate accounts for 2 marks
			Balance between **issue** and **strategies** – given that ONE issue is required but STRATEGIES are to be included, most responses can be expected to have a balance of about quarter/three quarters issue/strategies.		**Level 3 (9 – 10 marks)** Substantial knowledge and authoritative understanding of an appropriate issue, using clear evidence from the resource. Clear application of relevant knowledge and understanding to the question set. Clear structure and organisation. Communication is clear with maps, diagrams, and statistics, if appropriate. Accurate use of geographical terms.
			The inclusion of only ONE strategy will not reach Level 3 and is unlikely to go beyond bottom of Level 2.		
			But this can not be prescriptive as the precise balance is likely to vary. Some responses will inter–mix issue and strategies, meaning that the response must be read carefully to disentangle the two. If communication is clear then this will help inform the Level.		**Level 2 (5 – 8 marks)** Sound knowledge and understanding of an appropriate issue, using some evidence from the resource. Sound application of relevant knowledge and understanding to the question set. Sound structure and organisation. Communication is generally effective with maps, diagrams, and statistics, if appropriate. Geographical terms are mainly used effectively.
			Annotate in the margin as follows;		
			for issue		**Level 1 (0 – 4 marks)** Poor knowledge and understanding of an appropriate issue, using little or no evidence from the resource. Limited application of relevant knowledge and understanding to the question set.
			for each strategy		Poor structure and organisation. Much inaccuracy in communication and limited and/or ineffective use of geographical terms.

Question	Answer	Marks	Guidance
1	One of the questions for investigation in this Option is '**What are the hazards associated with flooding?**' A key idea explicitly stated in the Spec. is that the flood risk reflects a combination of physical and human factors. This short extract highlights both this combination of factors and that flooding has a range of environmental and social impacts. **Indicative Content** Possible geographical issues include: Physical issues: • Flow exceeding bankfull discharge a natural process; weather patterns eg precipitation; rock type – permeable/impermeable contrast; river regime – a possible Level 2 + indicator; changes in flows and stores within drainage basin. Human issues: • High 'value' placed on floodplains by a wide variety of human activities; rendering of surfaces impermeable through construction; land–use changes altering drainage basin flows; flooding of buildings and infrastructure; disruption of domestic/public/economic activities; at its most severe, loss of life and injury. Possible management strategies: • Appropriate management – short–term eg emergency relief; evacuation; temporary barriers eg sand bags; pumping of water. • Appropriate management – longer term eg structural approaches eg dams and reservoirs; levées; realignment/channelisation; flood relief channels; land–use changes eg afforestation especially in upper course. • Appropriate management – longer term eg non–structural eg floodplain, drainage basin land–use management; flood mitigation via forecasts and warnings. Where both long and short term responses included likely to indicate top of Level 2 + response.	10	The issue identified can be either purely physical or human. Clearly the two sets of factors interact and so candidates have no shortage of material to draw from.

Question	Answer	Marks	Guidance
2	One of the key questions in this Option is '**In what ways are physical environments under threat from human activity?**' The resource clearly indicates the threat to plant species around the world with various levels of threat recognised and quantified as regards proportionality of risk. The threat is not necessarily directly from human activity but may arise from an environmental change, which may or may not be linked with human activity, eg climate change. Credit material that originates from a candidates study of local ecosystems, for example examples of loss/threat and conservation measures. **Indicative Content** Possible geographical issues include: Physical issues: • loss of biodiversity/habitat; increase in run–off and sediment input to streams and rivers with consequential effects on discharge; increase in rates of weathering and mass movements; soil erosion; local/regional and global effects on weather and climate. Human issues: • impacts on indigenous peoples and their cultures. • role of activities such as logging and agricultural expansion; Level 3 indicator might be a discrimination between commercial and non–commercial expansion of activities. • could be linked to issues such as increased demand for biofuels. Possible management strategies: • Appropriate management – in some regions establishment of national parks/reserves to aid regeneration of ecosystem and environment. • Encouragement of local communities to re–appraise their bio–resources eg plants, through conservation/sustainable use, to generate value eg rainforest tourism. • Comments about the involvement of the global community eg World Bank's Forest Carbon partnership which gives credits for not cutting forest down; involvement of NGOs; these are possible Level 3 indicators.	10	The issue identified can be either purely physical or human. Clearly the two sets of factors interact and so candidates have no shortage of material to draw from.

Question			Answer	Marks	Guidance
3			The first Question for investigation in Option A3 is **'What conditions lead to tropical storms and in what ways do they represent a hazard to people?'** The resource prompts the candidates to consider the impacts of typhoons on the Western Pacific region. The resource shows the seasonal nature of this hazard as well as variability regarding strength and duration. **Indicative Content** Possible geographical issues include: Physical issues: • tropical storms are frequent during their 'season' – the concentration of higher category storms in three months might be picked up by some. • Variability as regards strength and duration – makes prediction and planning for hazards difficult. • primary hazards – hurricane force winds/storm surges/torrential rain. • secondary hazards include river and coastal flooding/mass movements. • factors leading to the formation of tropical storms eg latitude; sea surface temperatures >26/7°C; evaporation and condensation; feedback cycle; cyclonic circulation. Human issues: • loss of life and injury • economic and social dislocation – might link this to variability of strength and duration as well as seasonality • LEDC/MEDC contrast Possible management strategies: • Forecasting – variety of measures eg geostationary satellites, ships and buoys, aircraft, radiosondes, radar. • Long term strategies eg hard defences against storm surge; strict planning controls concerning construction style and location of buildings; coastal ecosystem management to sustain wetlands to absorb storm surges and high wave energy; practise emergency procedures including evacuation; afforestation of steep slopes; economic and social development so that populations are better prepared for impacts. • Short term strategies eg evacuation of coastal area; individuals boarding up windows; mobilise armed forces; emergency aid domestic and overseas. Where both long and short term responses included likely to indicate top of Level 2 + response.	10	The issue identified can be either purely physical or human. Clearly the two sets of factors interact and so candidates have no shortage of material to draw from. MEDC/LEDC contrast; possible Level 3 indicator is the contrast amongst LEDCs – some are more able to cope than others.

Question			Answer	Marks	Guidance
4			One of the Questions for Investigation in this Option is '**How and why does the number and rate of growth of population vary over time and space?**' As part of this candidates are to study population dynamics and variations in the factors responsible for changes in populations from place to place. This has implications for resources, their demand and sustainability. **Indicative Content** Possible geographical issues include: • Dependency issues; young dependants in LEDCs and ageing dependants in MEDCs. • Population–resource balance – pop. growth in LEDCs putting strain on resources eg food, clean water, housing and education. Resource strain in MEDCs in terms of types of housing, medical care, pension provision, declining workforce numbers. Possible management strategies: • Population planning to reduce growth in LEDCs. • Investment in education and training in LEDCs to improve standards of living and quality of lives. • Pro–natalist measures in MEDCs eg financial incentives eg tax breaks, subsidised child care, paid maternity leave. • Controls or encouragement of certain migration flows eg encourage younger workers to immigrate to fill skills shortage.	10	Basic LEDC/MEDC contrast Level 1. Level 2 responses likely to be indicated by comments about differences amongst the non–MEDC regions. More discerning comments drawing attention to poor state of affairs in Sub–Saharan Africa in particular, a possible top of Level 2 + indicator. A response focusing on one element, eg LEDCs or MEDCs acceptable.

Question			Answer	Marks	Guidance
5			One of the key ideas in this Option is that '**What are transnational corporations (TNCs) and what is their contribution to the countries in which they operate?**'	10	Issue and strategies should be global as this is the scale of the resource.
			The location of the workforce around the globe indicates the advantages for economic activity in operating at a global scale.		
			Indicative Content		
			Possible geographical issues include:		
			• Advantages to countries across the development spectrum of the operations of a TNC. • Disadvantages to countries across the development spectrum of the operations of a TNC. • Investment and wealth created as result of TNC operations spatially uneven. • Uneven distribution of employment.		
			Possible management:		
			• Protect vulnerable industries in LEDCs against TNC operations eg rules concerning foreign takeovers of domestic firms; import substitution; active support for local firms. • More even spread of FDI; some regions/countries do not participate in globalisation as much as others. Role of trans–national organisations in promoting investment eg World Bank, EU. • Aid packages for LEDCS to assist in education and training of their workforce to allow them to develop value adding activities. • Encourage TNC activities as they bring wealth creation and investment to areas struggling to generate these themselves. • Active monitoring of TNCs by both international organisations and domestic ones eg on issue of low wages and/or working conditions.		

Question	Answer	Marks	Guidance
6	The focus of this option is on **inequalities**, their patterns, causes and implications for communities and the environment. A Key Idea is '**Countries vary in their levels of economic development and this, in turn, influences the quality of life of their citizens.**' The resource highlights two contrasting retailing environments. **Indicative Content** Possible geographical issues include: • Global inequalities have been increasing and some areas are finding it very difficult to develop economically. • Contrasts in the quality of life of peoples in different parts of the world. • Gender issues raised. Possible management strategies: • Encourage more development aid/projects which are sustainable. Roles of UN, World Bank, IMF, EU, and individual governments. • Role of WTO in promoting trade on terms which only advantage MEDCs and NICs leading to spatial imbalance of available products. • Role of FairTrade organisation and other NGOs. • Internal policies in some LEDCs need re–focusing eg rebalancing of limited budgets in favour of development.	10	Issues and strategies should reflect the contrasts in economic development and quality of life highlighted in the resource. The use of one photograph is acceptable.

Question			Answer	Marks	Guidance
7			The hazards associated with mass movements are explicitly mentioned in the Spec as are their scale and types of impacts. At Level 1 then the answer is a simple 'not at all' but to reach Levels 2 and 3 in AOs 1, 2 and 3, then the response needs to be a fully discursive one.	30	**AO1 Knowledge and understanding**
					Level 3 (8–9 marks) Substantial knowledge and authoritative understanding of both physical and human factors involved in risks from mass movements. Causes and effects are convincing. There is secure use of detailed exemplification.
			Indicative Content		
			The severity and impact of mass movements depend on the interaction of a number of variables. A systems approach might serve a response well here as it will structure the answer to consider a variety of factors and how change in one factor can bring about feedback elsewhere in the slope system.		**Level 2 (5–7 marks)** Sound knowledge and understanding of physical and human factors. Some responses might be assessed at this level if they offer a particularly uneven account of either physical or human. Cause and effect is evident but not always convincing. There is some use of exemplification.
			Physical factors associated with mass movements such as the balance between upslope and downslope forces, shear strength, frictional resistance between slope materials, effects of vegetation resisting mass movement are relevant.		**Level 1 (0–4 marks)** Poor knowledge and understanding of physical and human factors. Cause and effect not understood well. There is little exemplification. Some responses might only describe one set of factors.
			Comments about a variety of external triggers both human and physical are required for an authoritative discussion.		**AO2 Analysis, interpretation and evaluation**
					Level 3 (14–17 marks) Clear and convincing analysis of the various risk factors. There is effective evaluation of the relative significance of the factors, both physical and human, with a balanced coverage of the two sets.
			Human factors such as deforestation, undercutting of slopes by construction, increased loading via buildings. Some mass movements are caused entirely by natural processes.		
			Comments distinguishing between long and short term risks move the response upwards through the levels depending on their quality.		**Level 2 (8–13 marks)** Some analysis of the various risk factors. Some evaluation of the relative significance of the factors, both physical and human, although likely not to be balanced between the two sets.

Question			Answer	Marks	Guidance
					Level 1 (0–7 marks) Limited analysis of the various risk factors. Little or no attempt to evaluate the relative significance of any of the factors, physical and human. **AO3 Skills and communication** **Level 3 (4 marks)** Clear structure and organisation, including a clear conclusion. Communication is clear with authoritative use of grammar and spelling and accurate use of geographical terms. Maps, diagrams and statistics are used effectively, if appropriate. **Level 2 (3 marks)** Sound structure and organisation, including a limited conclusion. Communication is generally effective although errors in grammar and spelling and some inaccurate use of geographical terms are likely to be present. Maps, diagrams and statistics are not used effectively. **Level 1 (0–2 marks)** Basic structure and organisation, with no attempt at a conclusion. Communication is ineffective with errors in grammar and spelling and little use of geographical terms or their inaccurate use. Maps, diagrams and statistics are not used.

Question	Answer	Marks	Guidance
8	This is a wide ranging evaluation in this Option and requires a focus on the interaction between physical and human factors. This question invites a discussion of the impacts of earth hazards and the degree to which the response focuses on this will be assessed under AO2. Exposure and vulnerability in the context of different levels of economic development are interesting concepts here as they encourage us to appreciate the factors which place people at risk, in this case, at risk in relation to mass movements and slope failure, volcanoes and earthquakes and flooding. **Indicative Content** The Spec asks that some specific earth hazard events and locations susceptible to earth hazards are investigated so we can expect some effective exemplification. Responses might consider points such as the scale of the hazard including the energy involved, urban/rural locations, LEDC/MEDC, degree of predictability and the ability to predict in the context of economic development. It is very important that we recognise the broad scope of this question and so a Level 3 response does not need to include reference to every type of earth hazard. What will be limiting is if the answer includes only one level of development and does not consider the wide range of levels in the world.	30	**AO1 Knowledge and understanding** **Level 3 (8–9 marks)** Substantial knowledge and authoritative understanding of the impacts of earth hazards in the context of a variety of levels of economic development. Convincing links between impacts and economic development. There is secure use of detailed exemplification. **Level 2 (5–7 marks)** Sound knowledge and understanding of the impacts of earth hazards in the context of at least two contrasting levels of economic development. There is some use of exemplification. **Level 1 (0–4 marks)** Poor knowledge and understanding of the impacts of earth hazards and of the variety in level of economic development. There is little exemplification. **AO2 Analysis, interpretation and evaluation** **Level 3 (14–17 marks)** Clear and convincing analysis of the various interactions between economic development and impacts. There is effective evaluation of the relative significance of the links, and vulnerability and preparedness are discussed with authority. **Level 2 (8–13 marks)** Some analysis of the various interactions. Some evaluation of the relative significance of the links, and vulnerability and preparedness are discussed although likely not to be balanced between the two.

Question	Answer	Marks	Guidance
			Level 1 (0–7 marks) Limited analysis of the various interactions. Little or no attempt to evaluate the relative significance of any of the links. **AO3 Skills and communication** **Level 3 (4 marks)** Clear structure and organisation, including a clear conclusion. Communication is clear with authoritative use of grammar and spelling and accurate use of geographical terms. Maps, diagrams and statistics are used effectively, if appropriate. **Level 2 (3 marks)** Sound structure and organisation, including a limited conclusion. Communication is generally effective although errors in grammar and spelling and some inaccurate use of geographical terms are likely to be present. Maps, diagrams and statistics are not used effectively. **Level 1 (0–2 marks)** Basic structure and organisation, with no attempt at a conclusion. Communication is ineffective with errors in grammar and spelling and little use of geographical terms or their inaccurate use. Maps, diagrams and statistics are not used.

Question			Answer	Marks	Guidance
9			One of the Questions for Investigation in this Option is 'What are the main components of ecosystems and environments and how do they change over time?' Associated with this is the Key Idea that ecosystems are subject to constant change as the physical conditions and human activities operating upon them change. **Indicative Content** Having spent some time focused on this Option, students should have effective knowledge and understanding of the interconnections between stores and flows in an ecosystem. Perhaps one indicator of a Level 3 response is a discussion structured on changes in inputs, stores, flows and outputs. This way the answer is likely to proceed logically through an ecosystem offering clear and convincing analysis of the causes of change. Human factors should receive a wide interpretation and, as ever, historical perspectives are welcome such as the large scale clearance of woodland across Britain in the Anglo–Saxon and early Middle Ages periods. Some interesting comparisons might be made here with tropical rain forest change over the past few decades. The scale at which a response discusses the assertion can also range from the local to global. One approach might be to look at one local ecosystem in detail, but equally valid are considerations at larger scales. Candidates are free to choose the scale of which they write and as they are required to study at least one local ecosystem, we can anticipate some authoritative exemplification of such locations. Indeed an interesting point of contrast between ecosystems at different scales might be usefully discussed.	30	**AO1 Knowledge and understanding** **Level 3 (8–9 marks)** Substantial knowledge and authoritative understanding of physical and human factors leading to change within ecosystems. There is secure use of detailed exemplification. **Level 2 (5–7 marks)** Sound knowledge and understanding of physical and human factors leading to change within ecosystems. There is some use of exemplification. **Level 1 (0–4 marks)** Poor knowledge and understanding of physical and human factors leading to change within ecosystems. There is little exemplification. **AO2 Analysis, interpretation and evaluation** **Level 3 (14–17 marks)** Clear and convincing analysis and evaluation of the relative importance of physical and human factors leading to change within ecosystems. **Level 2 (8–13 marks)** Some analysis and evaluation of the relative importance of physical and human factors leading to change within ecosystems. **Level 1 (0–7 marks)** Limited analysis and evaluation of the relative importance of physical and human factors leading to change within ecosystems.

Question	Answer	Marks	Guidance
			AO3 Skills and communication **Level 3 (4 marks)** Clear structure and organisation, including a clear conclusion. Communication is clear with authoritative use of grammar and spelling and accurate use of geographical terms. Maps, diagrams and statistics are used effectively, if appropriate. **Level 2 (3 marks)** Sound structure and organisation, including a limited conclusion. Communication is generally effective although errors in grammar and spelling and some inaccurate use of geographical terms are likely to be present. Maps, diagrams and statistics are not used effectively. **Level 1 (0–2 marks)** Basic structure and organisation, with no attempt at a conclusion. Communication is ineffective with errors in grammar and spelling and little use of geographical terms or their inaccurate use. Maps, diagrams and statistics are not used.

Question	Answer	Marks	Guidance
10	One of the Key Ideas in this Option is that the impact of human activity varies as areas develop. Candidates are explicitly required to study the different ways human activity can impact on physical environments in both negative and positive ways in countries at either end of the development continuum. **Indicative Content** There is often the simplistic assumption that, as areas develop, impacts on environments increase in both extent and intensity. There is some evidence to support such claims for example when considering the ecological footprints of areas such as USA and much of Western Europe. However, it might be argued that some of the inhabitants in poorer areas have negative impacts as they have little choice but to plough, graze or clear vulnerable environments simply to survive. The role of countries such as MEDCs and NICs on LEDCs makes for an interesting argument. Many of these rely on poorer areas for resources, agricultural and mineral, and thus provide the stimulus for environmental degradation. China's role in sub-Saharan Africa regarding land acquisitions makes for interesting discussion about environmental impacts. The current move towards bio–fuels is another interesting topic to explore here. The role of eco–tourism might be helpful here in bringing together countries at either end of the development spectrum. The use of national parks and other conservation measures offer valuable material. The Norwegian government's sponsoring of rainforest protection in Guyana is an interesting example relevant here.	30	**AO1 Knowledge and Understanding** **Level 3 (8–9 marks)** Substantial knowledge and authoritative understanding of the impacts of human activities on ecosystems/environments. There is secure use of detailed exemplification. **Level 2 (5–7 marks)** Sound knowledge and understanding of the impacts of human activities on ecosystems/environment. There is some use of exemplification. **Level 1 (0–4 marks)** Poor knowledge and understanding of the impacts of human activities on ecosystems/environments. There is little exemplification. **AO2 Analysis, interpretation and evaluation** **Level 3 (14–17 marks)** Clear and convincing analysis and evaluation of the different ways human activity impact on physical environments and on why the impact may be increasing or decreasing. **Level 2 (8–13 marks)** Some analysis and evaluation of the different ways human activity impact on physical environments and on why the impact may be increasing or decreasing. **Level 1 (0–7 marks)** Limited analysis and evaluation of the different ways human activity impact on physical environments and on why the impact may be increasing or decreasing.

Question			Answer	Marks	Guidance
					AO3 Skills and communication **Level 3 (4 marks)** Clear structure and organisation, including a clear conclusion. Communication is clear with authoritative use of grammar and spelling and accurate use of geographical terms. Maps, diagrams and statistics are used effectively, if appropriate. **Level 2 (3 marks)** Sound structure and organisation, including a limited conclusion. Communication is generally effective although errors in grammar and spelling and some inaccurate use of geographical terms are likely to be present. Maps, diagrams and statistics are not used effectively. **Level 1 (0–2 marks)** Basic structure and organisation, with no attempt at a conclusion. Communication is ineffective with errors in grammar and spelling and little use of geographical terms or their inaccurate use. Maps, diagrams and statistics are not used.

Question	Answer	Marks	Guidance
11	The impacts of atmospheric hazards are a significant part of this Option and candidates are expected to have studied these in relation to a variety of circumstances. The key evaluation here is to discuss economic impacts vis a vis environmental impacts. This opens the way up to compare similar hazards and their effects on societies at various points along the development continuum for example, or to contrast the impacts of different extreme weather events. There is a wealth of material and a wide variety of approaches for the candidates to use. It can often be difficult to distinguish clearly between economic and social so the later are to be credited if they emerge from economic impacts. **Indicative Content** Extreme weather in the form of tropical storms, tornadoes, blizzards and cold spells, heatwaves and drought, are all relevant here. Comments about hazards resulting from extreme weather are welcome, such as storm surges, flooding both coastal and river, mass movements, but only when they are explicitly linked with the weather/climate. Social and economic impacts can be on patterns and or processes and can include elements such as politics, for example the aftermath of Katrina, the intense monsoon season in 2010 in the Indian sub–continent and the heatwave in central and eastern Europe in 2010. The more thoughtful responses are likely to consider how hazards impact across the board. For example, drought in semi–arid regions can lead to soil degradation as well as forced migration of agriculturalists, both pastoralists and arable farmers, resulting in economic dislocation and loss of a way of life. Most tropical storms have social, economic and environmental impacts.	30	**AO1 Knowledge and Understanding** **Level 3 (8–9 marks)** Substantial knowledge and authoritative understanding of the impacts (economic and environmental) of extreme weather. There is secure use of detailed exemplification. **Level 2 (5–7 marks)** Sound knowledge and understanding of the impacts (economic and environmental) of extreme weather. Some responses might be assessed at this level if they offer a particularly uneven account of the three sets of impacts. There is some use of exemplification. **Level 1 (0–4 marks)** Poor knowledge and understanding of the impacts (economic and environmental) of extreme weather. Some responses might only describe one type of impact. There is little exemplification. **AO2 Analysis, interpretation and evaluation** **Level 3 (14–17 marks)** Clear and convincing analysis of the economic and environmental impacts of extreme weather. There is effective evaluation of the relative impacts of extreme weather. **Level 2 (8–13 marks)** Some analysis and evaluation of the economic and environmental impacts of extreme weather. There is some evaluation of the relative impacts of extreme weather.

Question			Answer	Marks	Guidance
					Level 1 (0–7 marks) Limited analysis of the economic and environmental impacts of extreme weather. There is little or no evaluation of the relative impacts of extreme weather. **AO3 Skills and communication** **Level 3 (4 marks)** Clear structure and organisation, including a clear conclusion. Communication is clear with authoritative use of grammar and spelling and accurate use of geographical terms. Maps, diagrams and statistics are used effectively, if appropriate. **Level 2 (3 marks)** Sound structure and organisation, including a limited conclusion. Communication is generally effective although errors in grammar and spelling and some inaccurate use of geographical terms are likely to be present. Maps, diagrams and statistics are not used effectively. **Level 1 (0–2 marks)** Basic structure and organisation, with no attempt at a conclusion. Communication is ineffective with errors in grammar and spelling and little use of geographical terms or their inaccurate use. Maps, diagrams and statistics are not used.

Question	Answer	Marks	Guidance
12	One of the Key Questions in this Option is 'In what ways do human activities create climatic hazards? In particular, the issue of the causes of global warming is explicitly stated. **Indicative Content** Global warming is so well documented and a wide variety of sources accessible to students that they have no shortage of material. A secure knowledge and understanding of what is meant by global warming as distinct from the greenhouse effect is expected for Levels 2 and 3, but there does not need to be a laborious description of the processes involved. What is required here is a thoughtful, evaluative discussion, set within a secure factual framework, of what are generally recognised to be the principal causes of global warming and to what extent can they be traced back to human activities. Generation of CO_2, CH_4 and other GHGs from human activities should be discussed for Level 2. Comments about non–human contributory factors are welcome, as long as they are justified by convincing science and do not descend into the genre of fictional conjecture. A possible Level 3 indicator might be in comments about contributory factors from across the development continuum. Candidates are likely to have considered the role of MEDCs, NICs and LEDCs in both the reduction in carbon sinks and in the release of GHGs such as CO_2 and CH_4.	30	**AO1 Knowledge and understanding** **Level 3 (8–9 marks)** Substantial knowledge and authoritative understanding of the causes of global warming. There is secure use of detailed exemplification. **Level 2 (5–7 marks)** Sound knowledge and understanding of the causes of global warming. There is some use of exemplification. **Level 1 (0–4 marks)** Poor knowledge and understanding of the causes of global warming. There is little exemplification. **AO2 Analysis, interpretation and evaluation** **Level 3 (14–17 marks)** Clear and convincing analysis of the causes. There is effective evaluation of their relative significance. **Level 2 (8–13 marks)** Some analysis of the various causes. Some evaluation of their relative significance. **Level 1 (0–7 marks)** Limited analysis of the various causes. Little or no attempt to evaluate the relative significance.

Question	Answer	Marks	Guidance
			AO3 Skills and communication **Level 3 (4 marks)** Clear structure and organisation, including a clear conclusion. Communication is clear with authoritative use of grammar and spelling and accurate use of geographical terms. Maps, diagrams and statistics are used effectively, if appropriate. **Level 2 (3 marks)** Sound structure and organisation, including a limited conclusion. Communication is generally effective although errors in grammar and spelling and some inaccurate use of geographical terms are likely to be present. Maps, diagrams and statistics are not used effectively. **Level 1 (0–2 marks)** Basic structure and organisation, with no attempt at a conclusion. Communication is ineffective with errors in grammar and spelling and little use of geographical terms or their inaccurate use. Maps, diagrams and statistics are not used.

Question	Answer	Marks	Guidance
13	The concepts of over– and underpopulation are explicitly stated in the Specification. Associated with these is the idea that the nature of populations and their demand for resources vary with location and through time. **Indicative Content** The initial and basic response tends to agree with the statement assuming that the natural resource base will be capable of sustaining the population relying on it, whereas demand in overpopulation regions results in a diminishing resource base. The more thoughtful responses are likely to discuss the nature of these concepts and extend their understanding of what is involved to ideas about under–employment not just issues of physical subsistence (nourishment) for example. It is the case that overpopulation tends to be more readily recognised in underdeveloped rural regions, but a more convincing discussion extends into urban locations. In addition, this topic need not be spatially confined to LEDCs, and a possible indicator of a Level 3 response might be evaluation of remote rural regions in MEDCs undergoing persistent out–migration, or regions struggling with long–term unemployment as a result of industrial decline. The issue of ageing populations in some countries with the consequent reduction in working age people offers interesting material on underpopulation in the context of wealth creation. As ever, the contrasts amongst and not just between MEDCs and LEDCs, offer scope for evaluation.	30	**AO1 Knowledge and understanding** **Level 3 (8–9 marks)** Substantial knowledge and authoritative understanding of the nature of over– and underpopulation. Effects of these concepts are convincing. There is secure use of detailed exemplification. **Level 2 (5–7 marks)** Sound knowledge and understanding of the nature of over– and underpopulation. Effects of these concepts are evident but not always convincing. There is some use of exemplification. **Level 1 (0–4 marks)** Poor knowledge and understanding of the nature of over– and underpopulation. Effects of these concepts are weak. There is little exemplification. **AO2 Analysis, interpretation and evaluation** **Level 3 (14–17 marks)** Clear and convincing analysis of both over– and underpopulation. There is effective evaluation of their relative impacts. **Level 2 (8–13 marks)** Some analysis of both over– and underpopulation. At the lower end imbalance between the two concepts is likely. Some evaluation of their relative impacts. **Level 1 (0–7 marks)** Limited analysis of both over– and underpopulation. One or other of the concepts may be omitted. Little or no attempt to evaluate their relative impacts.

Question			Answer	Marks	Guidance
					AO3 Skills and communication **Level 3 (4 marks)** Clear structure and organisation, including a clear conclusion. Communication is clear with authoritative use of grammar and spelling and accurate use of geographical terms. Maps, diagrams and statistics are used effectively, if appropriate. **Level 2 (3 marks)** Sound structure and organisation, including a limited conclusion. Communication is generally effective although errors in grammar and spelling and some inaccurate use of geographical terms are likely to be present. Maps, diagrams and statistics are not used effectively. **Level 1 (0–2 marks)** Basic structure and organisation, with no attempt at a conclusion. Communication is ineffective with errors in grammar and spelling and little use of geographical terms or their inaccurate use. Maps, diagrams and statistics are not used.

Question	Answer	Marks	Guidance
14	One of the Key Ideas in this Option is that 'The supply and use of resources is determined by a combination of physical and socio–economic factors.' Candidates should, therefore, have thought about and researched the factors influencing resource supply. **Indicative Content** The higher Level responses are likely to appreciate the wide variety of resource types which is likely to allow their discussions to be more convincing and authoritative. The basic physical nature of resources should be evident and examples given of where physical factors are/have been significant. Socio–economic should receive the widest of interpretations when assessing any response; technology, political factors, attitudes towards and perceptions of various resources, changes through time, all are relevant here. Comments about demand could be relevant as long as they are explicitly linked with effects on supply. For example, the change in demand for foods such as meat in some regions of the world where GNI is rising, and the impact this has on the supply of cereal. Biofuels are another example rich with potential for this question. Contrasts between and amongst countries at different points along the development continuum are welcome.	30	**AO1 Knowledge and understanding** **Level 3 (8–9 marks)** Substantial knowledge and authoritative understanding of the supply of resources and the physical and socio–economic factors influencing this. There is secure use of detailed exemplification. **Level 2 (5–7 marks)** Sound knowledge and understanding of the supply of resources and the physical and socio–economic factors influencing this. There is some use of exemplification. **Level 1 (0–4 marks)** Poor knowledge and understanding of the supply of resources and the factors influencing this. A response only considering human factors will stay in Level 1. There is little exemplification. **AO2 Analysis, interpretation and evaluation** **Level 3 (14–17 marks)** Clear and convincing analysis of the supply of resources and the factors influencing this. There is effective evaluation of their relative influences. **Level 2 (8–13 marks)** Some analysis of the supply of resources and the factors influencing this. There is some evaluation of their relative influences. **Level 1 (0–7 marks)** Limited analysis of the supply of resources and the factors influencing this. There is little or no attempt to evaluate their relative influences.

Question			Answer	Marks	Guidance
					AO3 Skills and communication **Level 3 (4 marks)** Clear structure and organisation, including a clear conclusion. Communication is clear with authoritative use of grammar and spelling and accurate use of geographical terms. Maps, diagrams and statistics are used effectively, if appropriate. **Level 2 (3 marks)** Sound structure and organisation, including a limited conclusion. Communication is generally effective although errors in grammar and spelling and some inaccurate use of geographical terms are likely to be present. Maps, diagrams and statistics are not used effectively. **Level 1 (0–2 marks)** Basic structure and organisation, with no attempt at a conclusion. Communication is ineffective with errors in grammar and spelling and little use of geographical terms or their inaccurate use. Maps, diagrams and statistics are not used.

Question			Answer	Marks	Guidance
15			The study of global patterns of aid is a feature of the Key Idea 'Aid both supports and hinders the broader balance of the world's pattern of production.' The focus here is of an evaluation of the effects that aid might bring to those receiving it. **Indicative Content** The definition of aid must be a broad one and discussions of different types of aid and their relative sustainable advantages or otherwise are likely to characterise Level 2 and 3 responses. Contrasts between and amongst official (governmental), NGOs of all scales, trans–national bodies eg World Bank, IMF, EU, are welcome. It is appropriate to consider the financial packages being deployed currently to support countries such as Greece. A key element in this particular question is the nature of aid. Clearly emergency aid designed to keep people alive following a disaster brings short term advantages. Answers at Level 2, however, are likely to go beyond this to consider medium and longer term aid projects. Comments about the sustainability of aid is a fruitful topic here. Consideration of the different scale of aid projects might indicate a Level 3 response. Some schools/individuals sponsor individuals in LEDCs and here is an appropriate and interesting topic for discussion in the context of this question.	30	**AO1 Knowledge and understanding** **Level 3 (8–9 marks)** Substantial knowledge and authoritative understanding of the advantages and disadvantages aid bring to countries. There is secure use of detailed exemplification. **Level 2 (5–7 marks)** Sound knowledge and understanding of the advantages and disadvantages aid bring to countries. There is some use of exemplification. **Level 1 (0–4 marks)** Poor knowledge and understanding of the advantages and disadvantages aid bring to countries. Responses considering only advantages will stay in Level 1. There is little exemplification. **AO2 Analysis, interpretation and evaluation** **Level 3 (14–17 marks)** Clear and convincing analysis of the impacts aid can have. There is effective evaluation of their relative sustainability. **Level 2 (8–13 marks)** Some analysis of the impacts TNCs can have. Some evaluation of their relative sustainability. **Level 1 (0–7 marks)** Limited analysis of the impacts TNCs can have. Little or no attempt to evaluate their relative sustainability.

Question	Answer	Marks	Guidance
			AO3 Skills and communication **Level 3 (4 marks)** Clear structure and organisation, including a clear conclusion. Communication is clear with authoritative use of grammar and spelling and accurate use of geographical terms. Maps, diagrams and statistics are used effectively, if appropriate. **Level 2 (3 marks)** Sound structure and organisation, including a limited conclusion. Communication is generally effective although errors in grammar and spelling and some inaccurate use of geographical terms are likely to be present. Maps, diagrams and statistics are not used effectively. **Level 1 (0–2 marks)** Basic structure and organisation, with no attempt at a conclusion. Communication is ineffective with errors in grammar and spelling and little use of geographical terms or their inaccurate use. Maps, diagrams and statistics are not used.

Question			Answer	Marks	Guidance
16			In this Option there is the Key Idea that the 'Globalisation of economic activity may bring advantages and disadvantages to various areas.' Environmental impacts are explicitly stated. **Indicative Content** The refuge of the weaker responses might be simply to agree with the statement and offer examples based in LEDCs and/or NICs of the operations of TNCs. However, more effective discussions will extend into advantages such as the out–migration of heavy industry or mining from some regions in MEDCs with the subsequent reduction in pollution. There is also a discussion to be had about the wealth created in LEDCs/NICs from globalisation being used to help improve various environmental aspects such as water supply and sewerage. Another interesting aspect of globalisation is the primary sector and agriculture in particular with the spread of GM crops. This impacts on countries across the development continuum.	30	**AO1 Knowledge and Understanding** **Level 3 (8–9 marks)** Substantial knowledge and authoritative understanding of the positive and negative environmental impacts globalisation brings to countries. There is secure use of detailed exemplification. **Level 2 (5–7 marks)** Sound knowledge and understanding of the positive and negative environmental impacts globalisation brings to countries. There is some use of exemplification. **Level 1 (0–4 marks)** Poor knowledge and understanding of the positive and negative environmental impacts globalisation brings to countries. Responses considering only negative impacts will stay in Level 1. There is little exemplification. **AO2 Analysis, interpretation and evaluation** **Level 3 (14–17 marks)** Clear and convincing analysis of the environmental impacts globalisation can have. There is effective evaluation of its relative influence both positive and negative. **Level 2 (8–13 marks)** Some analysis of the environmental impacts globalisation can have. Some evaluation of its relative influence both positive and negative. **Level 1 (0–7 marks)** Limited analysis of the environmental impacts globalisation can have. Little or no attempt to evaluate its relative influence both positive and negative.

Question			Answer	Marks	Guidance
					AO3 Skills and communication **Level 3 (4 marks)** Clear structure and organisation, including a clear conclusion. Communication is clear with authoritative use of grammar and spelling and accurate use of geographical terms. Maps, diagrams and statistics are used effectively, if appropriate. **Level 2 (3 marks)** Sound structure and organisation, including a limited conclusion. Communication is generally effective although errors in grammar and spelling and some inaccurate use of geographical terms are likely to be present. Maps, diagrams and statistics are not used effectively. **Level 1 (0–2 marks)** Basic structure and organisation, with no attempt at a conclusion. Communication is ineffective with errors in grammar and spelling and little use of geographical terms or their inaccurate use. Maps, diagrams and statistics are not used.

Question			Answer	Marks	Guidance
17			One of the Questions for Investigation in this Option asks candidates to consider the interconnections between economic, social and environmental inequalities. Here the focus is on the need, or otherwise, of taking a holistic approach to understanding how and why inequalities arise. **Indicative Content** Many MEDCs have regions lagging behind the rest of the country as a result of economic decline, former industrial or mining areas for example. Not only is there the legacy of higher than average unemployment but also disbenefits from residual pollution such as land contamination. In rural regions where average wages tend to be less, social isolation in small settlements such as former mining villages, is an issue. Within all countries, inequalities tend to be associated with particular groups. Often the disadvantaged have a linking factor such as ethnicity, gender or age and nearly always have a clearly defined spatial pattern. There is potential for linking these aspects with economic factors and so investigate further the issue of inequality. In NICs and LEDCs, rural regions tend to be at economic disadvantages compared with urban. They also tend to receive less investment as regards education and health care. Without improvements in these latter two, economic advances are difficult to sustain. Candidates are likely to take a national scale approach, but comments about intra–regional or intra–urban inequalities are relevant.	30	**AO1 Knowledge and Understanding** **Level 3 (8–9 marks)** Substantial knowledge and authoritative understanding of economic, social and environmental inequalities and their interconnections. There is secure use of detailed exemplification. **Level 2 (5–7 marks)** Sound knowledge and understanding of economic, social and environmental inequalities and their interconnections. There is some use of exemplification. **Level 1 (0–4 marks)** Poor knowledge and understanding of economic, social and environmental inequalities. There is likely to be an imbalance in discussion of the three types and little or no appreciation of their interconnections. There is little exemplification. **AO2 Analysis, interpretation and evaluation** **Level 3 (14–17 marks)** Clear and convincing analysis of the impacts development strategies can have on inequalities within countries. There is effective evaluation of their relative influence both positive and negative. **Level 2 (8–13 marks)** Some analysis of the impacts development strategies can have on inequalities within countries. Some evaluation of their relative influence both positive and negative.

Question			Answer	Marks	Guidance
					Level 1 (0–7 marks) Limited analysis of the impacts development strategies can have on inequalities within countries. Little or no attempt to evaluate their relative influence both positive and negative. **AO3 Skills and communication** **Level 3 (4 marks)** Clear structure and organisation, including a clear conclusion. Communication is clear with authoritative use of grammar and spelling and accurate use of geographical terms. Maps, diagrams and statistics are used effectively, if appropriate. **Level 2 (3 marks)** Sound structure and organisation, including a limited conclusion. Communication is generally effective although errors in grammar and spelling and some inaccurate use of geographical terms are likely to be present. Maps, diagrams and statistics are not used effectively. **Level 1 (0–2 marks)** Basic structure and organisation, with no attempt at a conclusion. Communication is ineffective with errors in grammar and spelling and little use of geographical terms or their inaccurate use. Maps, diagrams and statistics are not used.

Question			Answer	Marks	Guidance
18			This Option has running through it the issue of whether it is possible to reduce inequalities and if so by how much. At any of the scales identified in the Specification, global, national, regional or city, candidates are asked to evaluate the variety of methods used to combat inequalities. This Question focuses on the global scale so as to allow candidates to discuss their material on world development issues. **Indicative Content** Responses can pick up on the continuing gap between rich and poor as represented in many measures of development, both economic and social. At this global scale, they might point out the emergence of the NICs, some of the countries in Central and Eastern Europe and even the recent improvements in some LEDCs such as China and India. The counter to this might be discussed in the context in the continued desperate state of large swathes of sub–Saharan Africa as well as individual countries in Latin America and Asia, Haiti and Myanmar for example. References to conceptual ideas such as Myrdal and Frank would be relevant. Discussions surrounding the costs of development, such as in terms of environmental impacts and sustainable issues, are appropriate.	30	**AO1 Knowledge and Understanding** **Level 3 (8–9 marks)** Substantial knowledge and authoritative understanding of the extent to which inequalities can be eliminated. There is secure use of detailed exemplification. **Level 2 (5–7 marks)** Sound knowledge and understanding of the extent to which inequalities can be eliminated. There is some use of exemplification. **Level 1 (0–4 marks)** Poor knowledge and understanding of the extent to which inequalities can be eliminated. There is little exemplification. **AO2 Analysis, interpretation and evaluation** **Level 3 (14–17 marks)** Clear and convincing analysis of attempts to reduce inequalities. There is effective evaluation of their relative influence both positive and negative. **Level 2 (8–13 marks)** Some analysis of attempts to reduce inequalities. Some evaluation of their relative influence both positive and negative. **Level 1 (0–7 marks)** Limited analysis of attempts to reduce inequalities. Little or no attempt to evaluate their relative influence both positive and negative.

Question	Answer	Marks	Guidance
			AO3 Skills and communication **Level 3 (4 marks)** Clear structure and organisation, including a clear conclusion. Communication is clear with authoritative use of grammar and spelling and accurate use of geographical terms. Maps, diagrams and statistics are used effectively, if appropriate. **Level 2 (3 marks)** Sound structure and organisation, including a limited conclusion. Communication is generally effective although errors in grammar and spelling and some inaccurate use of geographical terms are likely to be present. Maps, diagrams and statistics are not used effectively. **Level 1 (0–2 marks)** Basic structure and organisation, with no attempt at a conclusion. Communication is ineffective with errors in grammar and spelling and little use of geographical terms or their inaccurate use. Maps, diagrams and statistics are not used.