

GCE

Geography

Unit F763: Global Issues

Advanced GCE

Mark Scheme for June 2015

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All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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Abbreviations, annotations and conventions used in the detailed Mark Scheme:

Annotation	Meaning
?	Unclear
^	Omission mark
I	Issue identified (Section A)
5	Strategy identified (Section A)
IRRL	Irrelevant, a significant amount of material that does not answer the question
LI	Level one
L2	Level two
L3	Level three
NE	No examples
R	Rubric infringement
✓	Correct point
}	Highlighting an issue e.g. irrelevant paragraph. Use in conjunction with another stamp e.g. relevant paragraph.
SEEN	Point has been seen and noted

For answers marked by levels of response:

- a. To determine the level start at the highest level and work down until you reach the level that matches the answer
- b. To determine the mark within the level, consider the following

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Descriptor	Award mark
on the borderline of this level and the one below	at bottom of level
just enough achievement on balance for this level	above bottom and either below middle or at middle of level (depending on number of marks available)
meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
consistently meets the criteria for this level	at top of level

MARK SCHEME

Question	Answer	Marks	Guidance
Questions 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. If the strategies do not relate to the issue identified, maximum of bottom of Level 2, providing that they are relevant to an issue arising from the resource. 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. The inclusion of only ONE strategy will not reach Level 3 and is unlikely to go beyond bottom of Level 2. But this cannot 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. Annotate in the margin as follows; I for issue 5 for each strategy		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 Level 3 (9 – 10 marks) Substantial knowledge and authoritative understanding of an appropriate issue which must originate from the resource and 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. 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. 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. Poor structure and organisation. Much inaccuracy in communication and limited and / or ineffective use of geographical terms.

Question	Answer	Marks	Guidance
1	Earth Hazards Study Fig.1, which shows a volcanic eruption occurring in Japan. Indicative Content One of the Questions for Investigation in this Option is 'What are the hazards associated with volcanic activity? The Content suggests study of the scale and type of impacts (environmental, social and economic) and primary and secondary impacts. Human	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.
	reactions in both short and long-term are to be studied. Possible geographical issues include: • Causes of volcanic activity e.g. destructive plate boundary; island arc • Primary impacts – lava flows; ash falls; pyroclastic flows; lahars + poisonous gases • Impacts on human activities e.g. agriculture, settlement, transport e.g. effect on air traffic • Should people live in hazardous zones? This may indicate a Level 2+ response. • Positive issue – fertile soils; tourism Possible management strategies:		
	 Monitoring e.g. of seismic activity + gas emissions + prediction of volcanic eruptions Education of local population Evacuation Coping with refugees Land-use zoning around volcano based on hazard mapping Diversion of lava flows; stopping lava flows e.g., spraying with water Where both long and short term responses included likely to indicate top of Level 2+ response.		

Question	Answer	Marks	Guidance
2	Ecosystems and environments under threat	10	The issue identified can be
	Study Fig. 2 which chave concentrations of DDT at various levels in an accounter		either purely physical or
	Study Fig. 2 which shows concentrations of DDT at various levels in an ecosystem.		human. Clearly the two sets of factors interact and so
	Two of the key questions in this Option is 'In what ways are physical environments under threat		candidates have no
	from human activity?' The key idea is that 'Human activity poses threats to physical environments		shortage of material to draw
	in both planned and unintended ways.' The associated Content explicitly states that students		from.
	should study 'the threats and impacts on, the physical environment posed by a range of human activities' and the different ways human activity can impact on physical environments in negative		
	ways. Candidates are not expected to know about DDT specifically, but should be familiar with		
	the effect of chemical accumulation as represented by DDT.		
	Indicative Content		
	Possible geographical issues include:		
	The threats posed by human activities to any components in the physical environment		
	The balance between economic and social demands such as food production,		
	employment, health protection and environmental protection and conservation.		
	How protected should environments be?		
	 Comments about these issues in terms of both intended and unintended ways a possible L2+ indicator. 		
	 Bio-accumulation of chemicals through food chains; effect on the different levels e.g. increasing mortality levels; decreasing breeding potential; 		
	Possible management strategies:		
	Research before chemicals used to assess their impact		
	 Controls on use of chemicals such as DDT including banning their use or use at 'safe' levels of concentration 		
	Biological controls instead of chemical controls		
	 Use of alternatives once negative effects known e.g. initiatives within farming such as environmental sustainability programmes within CAP; 		

Question	Answer	Marks	Guidance
3	Climatic Hazards Study Fig. 3 which shows a banana plantation on the island of Martinique, Caribbean, after a hurricane. Indicative Content One of the Questions for Investigation in this Option is 'What conditions lead to tropical storms and in what ways do they represent a hazard to people?' The Key ideas are that 'Tropical storms form and develop under particular atmospheric conditions to become hazards. These hazards have serious environmental, social and economic impacts upon the areas they affect.' Possible geographical issues include: Causes of tropical storms Primary impacts – very high wind speeds; torrential rain; flooding; mass movements Impacts on human activities – agriculture; economic and social dislocation; vulnerability of rural communities; transport disruption Comments about impacts on rural areas potentially being more serious than those on urban areas e.g. access to survivors difficult Possible management strategies: Forecasting – variety of measures e.g. geostationary satellites, radar. Long term strategies e.g. governments and NGOs prepare e.g. emergency supplies stockpiled; emergency services trained and equipped; loans / aid to allow replanting of plantation Short term strategies e.g. emergency aid such as bottled water + tents for survivors; food;	Marks 10	Guidance 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.
	medical aid Where both long and short term responses included likely to indicate top of Level 2+ response.		

Question	Answer	Marks	Guidance
4	Population and resources Study Fig. 4 which shows commercial fish catch landed at USA ports along the Atlantic coast, 1950 – 2012.	10	Candidates can deal with these issues and management in a generic way, or they can use a
	Indicative Content		particular example (s) to illustrate the issues and strategies.
	One of the Questions for Investigation in this Option is 'in what ways does human activity attempt to manage the demand and supply if resources' The associated Key idea is that 'the demand for, and supply of, resources need to be planned and managed to achieve a sustainable system.'		
	Possible geographical issues include:		
	 The use of some resources may not be sustainable given the rapid increase in their exploitation over the last few decades. Growing population increased demand. Some resources were not considered valuable until human factors allowed their exploitation Changing technology allowing greater rates of extraction e.g. sonar detection of shoals Physical factors e.g. water temperature in this case; or over-exploitation of food which cod rely on; pollution of physical environment 		
	Possible management strategies:		
	 How does human activity attempt to plan and manage demand for resources? Strategies such as increasing price of resource; promotion of alternatives e.g. different species; How does human activity attempt to plan and manage the supply of resources? Strategies such as quotas; establishing areas where the resource is not exploited e.g. reserves; measures designed to decrease the number of people extracting the resource (specifically in this case paying boat owners to lay up their vessels) Actual strategies can relate to any resources as there is no prescribed list candidates have to study. It is in their use and management that the credit lays Comments about different strategies depending on a country's position along the development continuum are valid 		
	Reducing population growth therefore demand reduces		

Question	Answer	Marks	Guidance
5	Globalisation Study Fig.5, statistics on development aid given to major world regions by MEDCs, 2005 and 2012.	10	Issue and strategies should be related to aid which is clearly highlighted in the resource.
	One of the Key Ideas in this Option is that 'Aid may both support and hinder the broader balance of the world's patterns of production.' In the accompanying Content, it states that candidates are to 'Study the global patterns of aid' so that they have knowledge and understanding of different types of aid; the advantages and disadvantages of aid for both donor and recipient countries and examples of short-term emergency aid and long-term development aid.		resource.
	Indicative Content		
	 Possible geographical issues include: Advantages to countries / people in receipt of different types of aid Disadvantages to countries / people in receipt of different types of aid Aid may not reach those most in need within a country for a variety of reasons Regional disparities in receipt of aid Declining contribution of aid to GNI – can be either negative or positive Can undermine local production economies if it continues to be supplied beyond emergency Can indicate extent of development gap as with increased development comes an enhanced ability to cope with set-backs / disaster 		
	Possible management:		
	 Aid needs to be appropriate in terms of scale and nature Emergency aid no different but there is the overwhelming need to save lives in the short term Government policies to support production in MEDCs e.g. agriculture, should not include using LEDCs as 'markets' for surplus production Sometimes, NGOs offer more successful routes in for aid as they don't have to operate through the government of the receiving country Promotion of development so that if disaster hits, then more able to cope – this may require more aid in the meantime 		
	 Trade might be a more secure route to development than aid. 		

Question	Answer	Marks	Guidance
6	Development and inequalities Study Fig.6, a map about development and inequalities.	10	Issues and strategies should reflect the contrasts in economic
	One of the Key Questions for Investigation in this Option is 'Why do levels of economic development vary and how can they lead to inequalities?' The associated Key idea states that various factors influence the rate and level of development and that this in turn may increase or decrease economic and social inequalities. The map focuses on gender differences in educational attainment in particular which allow candidates to include material on a variety of economic and social factors.		development and inequalities highlighted in the resource.
	Indicative Content		
	Possible geographical issues include:		
	 Global inequalities have been increasing and some areas are finding it very difficult to develop economically and socially. Contrasts in the quality of life of peoples in different parts of the world. Amongst the LEDCs, many women suffer significant inequality. Sub-Saharan Africa stands out in particular as a region of inequality for females. Low female literacy often associated with high fertility 		
	Possible management strategies:		
	 Encourage more development aid / projects which are sustainable. Roles of UN, World Bank, IMF, EU, and individual governments. Also activities of a wide variety of NGOs. These projects must be related directly to reducing inequality between the genders for example education of girls to reduce illiteracy; equalise access to health care; Enfranchising of women in particular but also democratisation in general. Raising the age of marriage of women; promoting use of contraception to allow women greater control over their fertility patterns 		

Question Answer	Marks	Guidance
To what extent are primary impacts arising from earthquakes more serious than the secondary impacts? One of the Questions for Investigation is 'What are the hazards associated with earthquake activity?' with its accompanying Key Idea being 'Earthquakes have a range of environmental and social impacts on the areas affected.' The associated content explicitly mentions both primary and secondary impacts. The response needs to be a fully discursive one weighing up the relative serious of different types of impact. Indicative Content Two separate accounts of effects, primary and secondary term will not carry the response very far, rarely more than bottom of Level 2 especially in AO2. More effective answers are those that acknowledge that both sets are present but that their relative effects vary from place to place and from time to time. Comments about exposure (magnitude of 'quake and number of people at risk) and vulnerability (how resistant a society is to 'quake hazards) are relevant. These can often accompany discussion concerning contrasts between MEDCs and LEDCs regarding impacts of hazards. Such content might indicate a Level 2+ response in AOs 1 and 2. Geographical variations in exposure and vulnerability help explain differences in degree of impact, primary and secondary. The scale of the earthquake both as regards energy released and area affected and contrasting impacts on rural and urban locations offer potential for evaluation here, reconstruction costs for example.	30	Level 3 (8-9 marks) Substantial knowledge and authoritative understanding of both primary and secondary impacts arising from earthquakes. There is secure use of detailed exemplification. Level 2 (5-7 marks) Sound knowledge and understanding of primary and secondary impacts of earthquakes. Some responses might be assessed at this level if they offer a particularly uneven account of either primary or secondary impacts. There is some use of exemplification. Level 1 (0-4 marks) Poor knowledge and understanding of primary and secondary impacts of earthquakes. There is little exemplification. Some responses might only describe one set of impacts, either primary or secondary. AO2 Analysis, interpretation and evaluation Level 3 (14-17 marks) Clear and convincing analysis of the various impacts, both primary and secondary. There is effective evaluation of the relative seriousness of the impacts, with a balanced coverage of the two sets.

Question	Answer	Marks	Guidance
			Level 2 (8-13 marks) Some analysis of the various risk impacts, both primary and secondary. Some evaluation of the relative seriousness of the impacts, although likely not to be balanced between the two sets. Level 1 (0-7 marks) Limited analysis of the various impacts. Both primary and secondary. Little or no attempt to evaluate the relative seriousness of the impacts
			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	'Successful management of the impacts of earth hazards is increasingly due to technology.' Discuss. One of the Questions for Investigation is 'How can hazards be managed to reduce their impacts?' This is a wide ranging evaluation in this Option and requires a focus on the management of earth hazards. This question invites a discussion of the success of various types of management of earth hazards and the degree to which the response focuses on this will be assessed under AO2. Technology should be given a wide interpretation.	30	AO1 Knowledge and understanding Level 3 (8-9 marks) Substantial knowledge and authoritative understanding of the management of earth hazards. Convincing links between technology and management. There is secure use of detailed exemplification.
	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.		Level 2 (5-7 marks) Sound knowledge and understanding of the management of earth hazards. Some links are made between technology and management but not that securely. There is some use of exemplification.
	The question invites an appraisal of the role technology can play in managing earth hazards which offers candidates plenty of material from which to draw for their discussion. Economic development tends to go hand in hand with technological development which can have a significant influence on the management of earth hazards. Technology can be seen to be important in terms of prediction, monitoring, mitigation and recovery. One valid area would to be		Level 1 (0-4 marks) Poor knowledge and understanding of the management of earth hazards. Little or no attempt to link technology with management. There is little exemplification.
	to look at the MEDC / LEDC contrast but the focus must be on technology. For example the contrast between the management of flooding in western Europe and Pakistan or the management of a hurricane as it sweeps across the Caribbean, central America and southern USA. Level 1 responses are likely to adopt the simplistic view that the more advanced the technology, the more successful the management, whereas Level 3 responses might look at the successful role un-sophisticated technology such as loud hailers can have in warning people in Bangladesh of the approach of a cyclone.		AO2 Analysis, interpretation and evaluation Level 3 (14-17 marks) Clear and convincing analysis of the role of technology in managing impacts of earth hazards. There is effective evaluation of the relative role of technology.
	There are also appropriate comments to be made about the severity of the hazard. For example despite the advanced technology available, Hurricane Sandy still had severe impacts of the USA. However, it could be argued that without the advanced technology, the impacts would have been even more severe.		Level 2 (8-13 marks) Some analysis of the role of technology in managing impacts of earth hazards. Some evaluation of the relative role of technology.

Question	Answer	Marks	Guidance
	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 type of earth hazard and does not consider the wide range of earth hazards.		Level 1 (0-7 marks) Limited analysis of the role of technology in managing impacts of earth hazards. Little or no attempt to evaluate the relative role of technology.
			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	Evaluate the relative significance of the factors responsible for the distinctive characteristics of one local ecosystem or environment. One of the Key Ideas in this Option is 'It is the interaction of the physical and human factors that create distinctive environments and lead to change within them.' Indicative Content The Specification is explicit in its requirement that a study be undertaken of at least one local ecosystem or environment such as a woodland, dunes or a marsh. We should not to be pedantic in our definition of local as if in the use of a larger scale ecosystem / environment, detail is absent in a response, then AO1 and probably AO2 are likely to be no higher than L1. The quality and quantity of exemplification will soon indicate the security of an individual's knowledge and understanding. The Specification Content is explicit in its requirement to investigate stores and flows within the ecosystem, the main physical factors such as soil, relief, drainage, microclimate, the main human influences such as economic activity, settlement, pollution and conservation. It is also expected that candidates will appreciate how these factors can change through time.	30	Level 3 (8-9 marks) Evaluate the relative significance of the factors responsible for the distinctive characteristics of at least one local ecosystem or environment. Level 2 (5-7 marks) Sound knowledge and understanding of the contribution of both physical and human factors in the chosen ecosystem / environment. There is some use of exemplification. Level 1 (0-4 marks) Poor knowledge and understanding of the contribution of both physical and human factors in the chosen ecosystem / environment. There is little exemplification.
	There does not need to be an equal balance in the consideration of physical and human factors but the complete absence of one or other will mean a response cannot be awarded above Level 1 in AO1. It is likely that such a limited approach will restrict AO2 also to Level 1 but not necessarily depending on the quality of evaluation and analysis of the factors which are discussed.		AO2 Analysis, interpretation and evaluation Level 3 (14-17 marks) Clear and convincing analysis and evaluation of the roles of physical and human factors to the creation of distinctive environments / ecosystems. Level 2 (8-13 marks) Some analysis and evaluation of the roles of physical and human factors to the creation of distinctive environments / ecosystems.

Question	Answer	Marks	Guidance
			Level 1 (0-7 marks) Limited analysis and evaluation of the roles of physical and human factors to the creation of distinctive environments / ecosystems.
			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	'Human activity has only negative impacts on physical environments.' Discuss. A Key Idea in this Option is that 'Human activity poses threats to physical environments in both planned and unplanned ways.' In the Content associated with this are the requirements to study both threats and impacts caused by a range of human activities and also the role that conservation can play in reducing threats.	30	AO1 Knowledge and Understanding Level 3 (8-9 marks) Substantial knowledge and authoritative understanding of the role human activity plays in having negative and positive impacts on physical environments. There is secure use of detailed exemplification.
	Indicative Content Human activities modify natural environments. These activities may be deliberate e.g. firing of grasslands in savannas or moors in upland Britain or inadvertent e.g. introducing alien species, cord grass into Britain. Their main ecological effects are a reduction in biodiversity, reduction in energy flows, reducing in complexity of food chains and webs, reduction in net primary production and biomass and greater instability within ecosystems. Candidates are not short of examples of disastrous human impacts e.g. land degradation due to over-grazing, - cultivation and deforestation. However, responses which do not then offer evidence of positive effects will be limited to the bottom of Level 2 in AO2. The establishment and management of national parks in many countries offer much valuable material to support the view that positive impacts are possible. Discussion concerning the conservation measures practiced on many farms is also relevant here. The role of bodies such as the National Trust, Environment Agency and UNESCO can be mentioned and there is		Level 2 (5-7 marks) Sound knowledge and understanding of the role human activity plays in having negative and positive impacts on physical environments. Some responses might be assessed at this level if they offer a particularly uneven account of either negative or positive impacts. There is some use of exemplification. Level 1 (0-4 marks) Poor knowledge and understanding of the role human activity plays in having negative and positive impacts on physical environments. There is little exemplification.
	much value to be extracted from local scale examples of conservation and sustainable management.		AO2 Analysis, interpretation and evaluation Level 3 (14-17 marks) Clear and convincing analysis and evaluation of the roles human activities play in physical environments.
			Level 2 (8-13 marks) Some analysis and evaluation of the roles human activities play in physical environments.

Question	Answer	Marks	Guidance
			Level 1 (0-7 marks) Limited analysis and evaluation of the roles human activities play in physical environments.
			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.

	To what extent is either acid rain or photochemical smog caused by		
	the interaction of human and physical factors?	30	AO1 Knowledge and Understanding
			Level 3 (8-9 marks)
	One of the Questions for Investigation is 'In what ways do human		Substantial knowledge and authoritative
	activities create climatic hazards?' with candidates required to study the		understanding of the causes of acid rain /
	causes of either acid rain or photochemical smog. While there is a close		photochemical smog, both physical and human.
	association between the formation of these two climatic hazards and		There is secure use of detailed exemplification.
	human activities, the question invites candidates to consider the relative		
	importance of physical and human factors and the extent to which these		Level 2 (5-7 marks)
1	two sets interact.		Sound knowledge and understanding of the
			causes of acid rain / photochemical smog. Some
	Indicative Content		responses might be assessed at this level if they
			offer a limited consideration of either physical or
	Acid rain is a more acidic substance than rainwater which is normally		human causal factors. There is some use of
	about 5.5 pH. The addition of SO ₂ and nitrogen oxides lowers the pH to		exemplification.
	below 5.5 and thus acid rain. Evaluation therefore, comes with		
	investigating the sources of SO ₂ and NO _x Acidification is closely		Level 1 (0-4 marks)
	associated with human activity such as fossil fuel combustion in power		Poor knowledge and understanding of the causes
	generation and vehicles and metal-working industries. These sources		of acid rain / photochemical smog. There may be
	emit pollutants into the atmosphere. Until about the 1960s, acid rain was		little or no mention of either physical or human
	a local phenomenon as chimneys were not that tall and so the emissions		causal factors. There is little exemplification.
	remained close to the surface. Therefore, the combination of human and		
	physical factors led to localised effects. Since then, much taller chimneys		A CO Amelia intermedation and evaluation
	have been built resulting in more widespread dispersal of acid rain. There		AO2 Analysis, interpretation and evaluation
	are, however, natural causes of acid rain, the most common being		Level 2 (44 47 member)
	volcanoes which emit SO ₂ and NO _x . The eruptions on Montserrat have		Level 3 (14-17 marks)
	been well documented as regards their creation of acid rain which has		Clear and convincing analysis of the causes of acid rain / photochemical smog. There is effective
'	had a devastating effect on the cloud forest on the island.		evaluation of the relative significance of physical
	Photochemical smog results from the combination of NO _x and volatile		and human factors and their interaction.
	organic compounds (VOCs). The main human sources of VOCs and NO _x		and numan factors and their interaction.
	are road vehicles, petrol handling and distribution and solvent release		Level 2 (8-13 marks)
	from drying paints, glues or inks. So, the role of human activity is clear.		Some analysis and evaluation of the causes of
'	nom arying paints, glacs or links. So, the role of human activity is clear.		acid rain / photochemical smog. There is some
			evaluation of the relative significance of physical
			and human factors and their interaction.

Question	Answer	Marks	Guidance
	However, photochemical activity is required when VOCs and NO _x react		Level 1 (0-7 marks)
	with sunlight to form ozone. Locations suffering from smog tend to be		Limited analysis of the causes of acid rain /
	those with physical geography which exacerbates the situation, i.e.		photochemical smog There is little or no
	basins and which have extended periods of anti-cyclonic atmospheric		evaluation of the significance of physical and
	conditions (low wind velocities). Los Angeles, Athens and Mexico City are		human factors and their interaction.
	well known in this context but smaller scale examples are equally		
	justified. Comments about the susceptibility of some locations to		
	temperature inversions and higher altitudes having lower oxygen levels		
	so therefore less efficient combustion, are valuable.		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
			Level 1 (0-7 marks) Limited analysis of the role of technology in managing impacts of climatic hazards. Little or no attempt to evaluate the relative role of technology.
			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	To what extent does the supply of resources depend upon physical factors?	30	AO1 Knowledge and understanding
			Level 3 (8-9 marks)
	One of the Key Ideas in this Option is that 'The supply [] of resources is determined by a combination of physical and socio-economic factors.'		Substantial knowledge and authoritative understanding of the physical and socio-
	While there is a close association between supply of resources and		economic factors influencing resource supply.
	physical factors, the question invites candidates to consider the relative		There is secure use of detailed exemplification.
	importance of physical geography and human (socio-economic) activities.		Level 2 (5-7 marks)
	Indicative Content		Sound knowledge and understanding of the
			physical and socio-economic factors influencing
	There is a strong relationship between physical factors and resource		resource supply. Some responses might be assessed at this level if they offer a particularly
	supply. The more a resource is spatially concentrated, the more likely it is to be exploited. Geology is significant in the supply of minerals, fossil fuels		uneven account of either physical or socio-
	and water. Straightforward points can be made about physical factors such		economic. There is some use of exemplification.
	as depth of mineral and degree of faulting for example.		Level 1 (0-4 marks)
	Some renewable resources such as solar, wind and tidal energy are spatially variable and are controlled by environmental conditions.		Poor knowledge and understanding of the
	Soil fertility varies spatially and has a strong influence on the agricultural		physical and socio-economic factors influencing
	systems operating in a location.		resource supply. Either physical or socio- economic might be omitted. There is little
	However, much worthwhile evaluation is to be had when assessing the		exemplification.
	role socio-economic factors play in influencing resource supply. Economics are clearly highly significant. Simply, when the price obtained for a		
	resource exceeds the costs involved in obtaining it, then exploitation tends		AO2 Analysis, interpretation and evaluation
	to occur. One possible indication of a Level 3 response in AO1 might be		L 10 (44 47)
	secure knowledge of what is meant by terms such as 'resource base' and 'recoverable reserve'.		Level 3 (14-17 marks) Clear and convincing analysis of the relative roles
	Social acceptability can be important. A current example is the attitude		played by physical and socio-economic factors in
	towards wind farms (off-shore and land) or tidal barrages (Swansea) for		resource supply. There is effective evaluation of
	example.		the roles of the two sets of factors.
	Technology can have an important role. The ability to identify and locate resources in the first place, the ability to access a resource and then to		Level 2 (8-13 marks)
	transport it, all are appropriate factors to analyse. Whether a substance		Some analysis of the relative roles played by
	even becomes a resource can be influenced by technology; bauxite was		physical and socio-economic factors in resource supply. There is some evaluation of the roles of
	first smelted by electrolysis in the late 19 th century and subsequently has become a mineral much in demand for the production of aluminium.		the two sets of factors.
	become a mineral much in demand for the production of aluminum.		

lesser extent depending on the resource. L p As always in connection with this topic, the definition of what constitutes a	Guidance Level 1 (0-7 marks) Limited analysis of the relative roles played by ohysical and socio-economic factors in resource
example, if a response were to build on AS tourism by considering changing attitudes towards wilderness regions such as Antarctica. L C C C C C C C C C C C C C C C C C C	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 imited 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, geographical terms or their inaccurate use. Maps,

Question	Answer	Marks	Guidance
14	'International population migration creates more opportunities than challenges.' Discuss. One of the Key ideas is 'population is dynamic and changes in response to a number of demographic, social, economic and political factors. The factors vary from place to place.' The role of migration is explicitly stated in the associated Content.	30	AO1 Knowledge and understanding Level 3 (8-9 marks) Substantial knowledge and authoritative understanding of the challenges and opportunities international migration offers. There is secure use of detailed exemplification.
	Indicative Content Migration is the permanent or semi-permanent change of residence by an individual or group of people. The Question restricts the discussion to		Level 2 (5-7 marks) Sound knowledge and understanding of the challenges and opportunities international migration offers. Some responses might be assessed at this level if they offer a particularly
	international migrations. Material considering the impacts of international migration on both source and destination locations is a possible indicator of Level 2+ in AOs 1 and 2. Evaluation can immediately emerge such as in the example of international		uneven account of either challenges or opportunities. There is some use of exemplification.
	labour migration within southern Africa. For example, many young men leave countries such as Lesotho to work in South Africa. This presents a challenge to the source region in terms of labour for food production but is also an opportunity in the form of remittance money. The opportunities and challenges posed by international migrations within the EU on both source		Level 1 (0-4 marks) Poor knowledge and understanding of the challenges and opportunities international migration offers. There is little exemplification.
	and destination regions offers much valuable material as long as discussions do not take their leads from the superficial analyses found in		AO2 Analysis, interpretation and evaluation
	less rigorous media sources.		Level 3 (14-17 marks)
	The Question makes no assumption as to the type of international migration		Clear and convincing analysis of the challenges
	so discussions regarding forced moves, such as refugees fleeing conflict or those escaping environmental hazards such as drought, are relevant.		and opportunities international migration offers. There is effective evaluation of the relative
	As always, historic settings are appropriate such as the mass migration of		significance of opportunities and challenges.
	emigrants into the United States of America in the 18 th and 19 th centuries.		
	Clearly, some effective evaluation is to be made when considering the		Level 2 (8-13 marks) Some analysis of the challenges and
	opportunities and challenges posed by international migrations to resources in both source and destination regions.		opportunities international migration offers. There
	in both source and destination regions.		is some evaluation of the opportunities and
			challenges of international migration, but not
			necessarily an even assessment of the two.

Question	Answer	Marks	Guidance
			Level 1 (0-7 marks) Limited analysis of the challenges and opportunities international migration offers. There is little or no attempt to evaluate the challenges and opportunities.
			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	Assess the impacts of globalisation on people living in MEDCs.	30	AO1 Knowledge and understanding
	One of the Key Ideas is that 'Globalisation brings advantages and disadvantages to various areas.' and that 'These impacts may be environmental, economic, social or political.' In the associated Content, impacts both positive and negative, are explicitly mentioned in the context of MEDCs.		Level 3 (8-9 marks) Substantial knowledge and authoritative understanding of the benefits and problems globalisation brings to MEDCs. There is secure use of detailed exemplification.
	Indicative Content The Specification explicitly states that environmental, economic, social and political impacts are to be considered within the context of a MEDC. We can, therefore, anticipate evaluation supported by real world detail in the more convincing responses. One real world example in detail will access Level 3 in AO1 and responses considering more than one example can also access this Level. Changing comparative advantages for primary, secondary and tertiary employment has led to economic restructuring associated with the New International Division of Labour; comments about deindustrialisation are appropriate. A likely indicator of Level 3 in AOs 1 + 2 is the evaluation of differing economic impacts on regions with winners and losers. FDI is a relevant topic to analyse with the recognition that most is between MEDCs a likely Level 3 indicator in AO2. Impacts on the physical environment can also be seen to be both positive and negative. The closure of heavy industry has reduced pollution in some locations but has also left a legacy of contamination. The focus of services into urban areas has increased congestion and the pressure for development land in those cities benefiting from globalisation. Increased labour mobility can be seen in both positive and negative terms		Level 2 (5-7 marks) Sound knowledge and understanding of the benefits and problems globalisation brings to MEDCs. There is some use of exemplification. Level 1 (0-4 marks) Poor knowledge and understanding of the benefits and problems globalisation brings to MEDCs. There is little exemplification. AO2 Analysis, interpretation and evaluation Level 3 (14-17 marks) Clear and convincing analysis of the benefits and problems globalisation brings to MEDCs. There is effective evaluation of their relative impacts. Level 2 (8-13 marks) Some analysis of the benefits and problems globalisation brings to MEDCs. Some evaluation
	as skill shortages are filled but in some locations, considerable strain upon services such as health and education result.		of their relative impacts. Level 1 (0-7 marks) Limited analysis of the benefits and problems globalisation brings to MEDCs. Little or no attempt to evaluate their relative impacts.

Question	Answer	Marks	Guidance
Cultural im Politically t responses	pacts are also relevant such as in music, food and fashion. The influence of some MEDCs has grown but the more astute might consider the changing international balance, for example powers such as Brazil, China and India and the challenge this	INIGINS	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	Evaluate the role of one or more specific transnational corporations (TNCs) across the development continuum. A Question for Investigation in this Option is, 'What are transnational corporations (TNCs) and what is their contribution to the countries in which they operate?' The associated Content is also explicit in its demand of the study of two case studies of TNCs.	30	AO1 Knowledge and Understanding Level 3 (8-9 marks) Substantial knowledge and authoritative understanding of the role TNCs play across the development continuum. There is secure use of detailed exemplification of at least one TNC.
	Indicative Content Candidates need to be secure in their knowledge and understanding of their examples which can come from the primary, secondary or tertiary sectors. A possible Level 3 indicator in AO2 is a consideration of the role TNCs have in both their country of origin and the other countries they operate in. These should be analysed in terms of advantages and disadvantages. Wealth creation is clearly a significant factor with the more astute responses acknowledging the return flow of earnings from production units beyond the country of origin as well as the stimulation of economic activity overseas. The role of TNCs in distributing FDI is relevant with a possible Level 3 indicator being the concentration of FDI amongst MEDCs. TNCs can often result in multiplier effects occurring where they locate. One downside is their ability to relocate manufacturing units elsewhere as and when they consider their best interests are served by such a move. Leakage of funds (e.g. tourism) and disregard for environmental pollution are appropriate areas for analysis. Globalisation, the local sourcing of parts by TNCS for their branch plants, is also relevant. A strong case can be made for the pivotal role TNCs have and continue to play in globalisation in all its forms.		Level 2 (5-7 marks) Sound knowledge and understanding of the role TNCs play across the development continuum. There is some use of exemplification of at least one TNC. Level 1 (0-4 marks) Poor knowledge and understanding of the role TNCs play across the development continuum. There is little exemplification of a TNC. AO2 Analysis, interpretation and evaluation Level 3 (14-17 marks) Clear and convincing analysis of the role TNCs play across the development continuum. There is effective evaluation of their relative influence both positive and negative. Level 2 (8-13 marks) Some analysis of the role TNCs play across the development continuum. Some evaluation of their relative influence both positive and negative.

Question	Answer	Marks	Guidance
			Level 1 (0-7 marks) Limited analysis of the role TNCs play across the development continuum. 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
17	How far does the level of economic development influence quality of life?	30	AO1 Knowledge and Understanding
			Level 3 (8-9 marks)
	One of the Key Ideas in this Option is 'Countries vary in their levels of		Substantial knowledge and authoritative
	economic development and this, in turn, influences the quality of life (such		understanding of the relationship between
	as standard of living) of their citizens.' The Content associated with this is		economic development and quality of life. There
	explicit in its requirement of candidates that this idea is explored in LEDCs, NICs and MEDCs.		is secure use of detailed exemplification.
			Level 2 (5-7 marks)
	Indicative Content		Sound knowledge and understanding of the relationship between economic development
	Economic development relies on creating wealth by using natural and		and quality of life. There is some use of
	human resources to produce commodities, manufactured goods and		exemplification.
	services. It is possible to argue that strong economic development then		1. 14/04
	offers society opportunities to improve quality of life of its citizens. The		Level 1 (0-4 marks)
	provision of clean water, for example requires capital to pay for infrastructure to collect, store, purify and distribute. There are consequently		Poor knowledge and understanding of the relationship between economic development
	significant health benefits which can also lead to improvements in		and quality of life. There is little exemplification.
	education as children are ill less frequently and so attend school regularly		and quality of line. There is little exemplimeation.
	and frequently. Higher standards of education lead to more economic		
	development. Evaluations such as this and likely to indicate Levels 2 + 3 in		
	AOs 1 + 2.		AO2 Analysis, interpretation and evaluation
	Development is, however, a contested concept and a response		
	considering what it is and how it should proceed is likely to be assessed at		Level 3 (14-17 marks)
	Level 3 in AO2. Comments about the diffusion of improvements in quality of life throughout a society are relevant. Some countries have achieved		Clear and convincing analysis of the relationship between economic development and quality of
	significant improvements in their economic development and yet		life. There is effective evaluation of the
	considerable inequalities persist in quality of life.		relationship between economic development and
	It is also appropriate to consider situations where there is a very high		quality of life.
	economic standard of living and yet environmental conditions lead to a		quamy at max
	lowering quality of life. Increasing air and water pollution such as in some		
	of the major metropolitan locations in LEDCs, NICs and MEDCs.		Level 2 (8-13 marks)
	There are plenty of well documented real world examples which		Some analysis of the relationship between
	candidates can draw on.		economic development and quality of life. Some
			evaluation of the relationship between economic
			development and quality of life.

Question	Answer	Marks	Guidance
			Level 1 (0-7 marks) Limited analysis of the relationship between economic development and quality of life. Little or no attempt to evaluate the relationship between economic development and quality of life.
			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	Assess the extent to which the Development Gap is decreasing.	30	AO1 Knowledge and Understanding
	One of the Questions for Investigation is 'To what extent is the 'Development Gap' increasing or decreasing?' Candidates are explicitly required to consider what the Development Gap is, and why it exists including study of models such as core-periphery and Friedmann. The Specification is also clear in its expectations that physical, economic,		Level 3 (8-9 marks) Substantial knowledge and authoritative understanding of the Development Gap and the factors influencing it. There is secure use of detailed exemplification.
	social and political factors will be studied when assessing whether the gap is increasing or decreasing. Indicative Content		Level 2 (5-7 marks) Sound knowledge and understanding of the Development Gap and the factors influencing it.
			There is some use of exemplification.
	Various ways can be employed to identify differences in development at the global scale. Level 3 in AO1 is likely to be indicated by secure use of data with Level 1 responses characterised by vague phrases and generalisations. The Millennium Development Goals can be a useful framework for application.		Level 1 (0-4 marks) Poor knowledge and understanding of the Development Gap and the factors influencing it. There is little exemplification.
	analysis. The four sets of factors identified in the Specification offer one possible structure for a response and each has much potential for evaluation. Physical factors can influence development but a simple deterministic argument is unlikely to climb higher than bottom of Level 2 in AO2. Economic factors offer a variety of national experiences to evaluate, with some countries raising their per capita income while others have seen		AO2 Analysis, interpretation and evaluation Level 3 (14-17 marks) Clear and convincing analysis of the Development Gap and the factors influencing it.
	this fall in both real and relative terms. Social factors such as demographics can also contribute valuable evaluation with both youthful and ageing populations offering interesting perspectives on future development levels. A factor such as corrupt governance can be shown		There is effective evaluation of the relative influence of the factors affecting the Development Gap.
	to retard development and there are plenty of examples where direct government involvement has led to progress in quality of lives. There is no expectation that the models mentioned in the Specification will be explicitly discussed but their relevant use could enhance a response.		Level 2 (8-13 marks) Some analysis of the Development Gap and the factors influencing it. There is effective evaluation of the relative influence of the factors affecting the Development Gap.
	Comments about increasing intra-national regional inequalities are valid if set in the context of a country moving up the development continuum, but these should not dominate the response.		

Question	Answer	Marks	Guidance
			Level 1 (0-7 marks) Limited analysis of the Development Gap and the factors influencing it. There is little or no evaluation of the factors affecting the Development Gap.
			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.

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