

**GCE A2**

**Geography**

**January 2009**

**Mark Schemes**

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**NORTHERN IRELAND GENERAL CERTIFICATE OF SECONDARY EDUCATION (GCSE)  
AND NORTHERN IRELAND GENERAL CERTIFICATE OF EDUCATION (GCE)**

**MARK SCHEMES (2009)**

**Foreword**

***Introduction***

Mark Schemes are published to assist teachers and students in their preparation for examinations. Through the mark schemes teachers and students will be able to see what examiners are looking for in response to questions and exactly where the marks have been awarded. The publishing of the mark schemes may help to show that examiners are not concerned about finding out what a student does not know but rather with rewarding students for what they do know.

***The Purpose of Mark Schemes***

Examination papers are set and revised by teams of examiners and revisers appointed by the Council. The teams of examiners and revisers include experienced teachers who are familiar with the level and standards expected of 16- and 18-year-old students in schools and colleges. The job of the examiners is to set the questions and the mark schemes; and the job of the revisers is to review the questions and mark schemes commenting on a large range of issues about which they must be satisfied before the question papers and mark schemes are finalised.

The questions and the mark schemes are developed in association with each other so that the issues of differentiation and positive achievement can be addressed right from the start. Mark schemes therefore are regarded as a part of an integral process which begins with the setting of questions and ends with the marking of the examination.

The main purpose of the mark scheme is to provide a uniform basis for the marking process so that all the markers are following exactly the same instructions and making the same judgements in so far as this is possible. Before marking begins a standardising meeting is held where all the markers are briefed using the mark scheme and samples of the students' work in the form of scripts. Consideration is also given at this stage to any comments on the operational papers received from teachers and their organisations. During this meeting, and up to and including the end of the marking, there is provision for amendments to be made to the mark scheme. What is published represents this final form of the mark scheme.

It is important to recognise that in some cases there may well be other correct responses which are equally acceptable to those published: the mark scheme can only cover those responses which emerged in the examination. There may also be instances where certain judgements may have to be left to the experience of the examiner, for example, where there is no absolute correct response – all teachers will be familiar with making such judgements.

The Council hopes that the mark schemes will be viewed and used in a constructive way as a further support to the teaching and learning processes.



## CONTENTS

	<b>Page</b>
A2 1: Module 4	1
A2 2: Module 5	21





*Rewarding Learning*

**ADVANCED**  
**General Certificate of Education**  
**January 2009**

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## **Geography**

**Assessment Unit A2 1**

*assessing*

**Module 4: Physical Processes and Human Interactions**

**[A2G11]**

**MONDAY 12 JANUARY, MORNING**

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**MARK**  
**SCHEME**

## **Introductory Remarks**

Note that the assessment objectives (AOs) for this specification are more extensive than those for the previous syllabus. There are now four AOs, and the style of questions and the requirements of the mark scheme have had to be modified somewhat to take account of them, particularly AO2 and AO3 with their need for “critical understanding”. It is worth reproducing the AOs here:

AO1 Show knowledge of the specified content;

AO2 Show critical understanding of the specified content;

AO3 Apply knowledge and critical understanding to unfamiliar contexts;

AO4 Select and use a variety of skills and techniques, including communicative skills, appropriate to geographical studies.

## **General Instructions for Markers**

The main purpose of the mark scheme is to provide a uniform basis for the marking process so that all markers are following exactly the same instructions and making the same judgements so far as this is possible. Markers must apply the mark scheme in a consistent manner and to the standard agreed at the standardising meeting.

It is important to recognise that in some cases there may be other correct responses that are equally acceptable to those included in this mark scheme. There may be instances where certain judgements have to be left to the experience of the examiner, for example, where there is no absolute, correct answer.

Markers are advised that there is no correlation between length and quality of response. Candidates may provide a very concise answer that fully addresses the requirements of the question and is therefore worthy of full or almost full marks. Alternatively, a candidate may provide a very long answer which also addresses the requirements of the question and is equally worthy of full or almost full marks. It is important, therefore, not to be influenced by the length of the candidate’s response but rather by the extent to which the requirements of the mark scheme have been met.

Some candidates may present answers in writing that are difficult to read. Markers should take the time to establish what points are being expressed before deciding on a mark allocation. However, candidates should present answers which are legible and markers should not spend a disproportionate amount of time trying to decipher writing that is illegible.

## **Levels of Response**

For questions with an allocation of six or more marks three levels of response will be provided to help guide the marking process. General descriptions of the criteria governing levels of response mark schemes are set out on the next page. When deciding about the level of a response, a “best fit” approach should be taken. It will not be necessary for a response to meet the requirements of all the criteria within any given level for that level to be awarded. For example, a Level 3 response does not require all of the possible knowledge and understanding which might be realistically expected from an AS or AL candidate to be present in the answer.

Having decided what the level is, it is then important that a mark from within the range for that level, which accurately reflects the value of the candidate’s answer, is awarded.

## General Descriptions for Marking Criteria

<b>Knowledge and Understanding</b>	<b>Skills</b>	<b>Quality of Written Communication</b>	<b>Level</b>
<p>The candidate will show a wide-ranging and accurate knowledge and a clear understanding of the concepts/ideas relevant to the question. All or most of the knowledge and understanding that can be expected is given.</p>	<p>The candidate will display a high level of ability through insightful analysis and interpretation of the resource material with little or no gaps, errors or misapprehensions. All that is significant is extracted from the resource material.</p>	<p>The candidate will express complex subject matter using an appropriate form and style of writing. Material included in the answers will be relevant and clearly organised. It will involve the use of specialist vocabulary and be written legibly and with few, if any, errors in spelling, grammar and punctuation.</p>	3
<p>The candidate will display an adequate to good knowledge and understanding of many of the relevant concepts/ ideas. Much of the body of knowledge that can be reasonably expected is given.</p>	<p>The candidate will display evidence of the ability to analyse and interpret the resource material but gaps, errors and/or misapprehensions may be in evidence.</p>	<p>The candidate will express ideas using an appropriate form and style of writing. Material included will be relevant and organised but arguments may stray from the main point. Some specialist terms will be used and there may be occasional errors in spelling, grammar and punctuation. Legibility is satisfactory.</p>	2
<p>The candidate will display some accurate knowledge and understanding but alongside errors and significant gaps. The relevance of the information to the question may be tenuous.</p>	<p>The candidate will be able to show only limited ability to analyse and interpret the resource material and gaps, errors and/or misapprehensions will be clearly evidenced.</p>	<p>The candidate will have a form and style of writing which is not fluent. Only relatively simple ideas can be dealt with competently. Material included may have dubious relevance. There will be noticeable errors in spelling, grammar and punctuation. Writing may be illegible in places.</p>	1

**Unit A: Managing Fluvial and Coastal Environments**

- 1 (a) (i) Each of the three points should be addressed within the response.  $3 \times [2]$  marks. Valid, although not necessarily comprehensive, explanations are required.
- Stream velocity: channelisation results in removal of bedload and reduces friction with bed and banks; the resultant increased efficiency of flow as measured by Manning's equation will allow increased velocity. On occasions, channelisation may result in increased gradient which will, in turn, increase the velocity of flow. Channelised rivers may be realigned; the straighter course may promote increased velocity. Overall, laminar, rather than turbulent, flow may be produced.
  - During channelisation a river course may be straightened and, therefore, shortened; thus the angle of descent of the river proportionally increases.
  - Channelised rivers may be deepened or widened. Some have two- or multi-stage channels. The cross-sectional area and channel capacity are, thus, increased. [6]
- (ii) An appropriate explanation is required. Candidates may elect to mention each of the changes in turn, or to provide a generic response – either is acceptable. In essence, flood risk will be reduced because the throughput of water through the system is increased either by an increase in flow velocity or volume or both. A maximum of [2] will be awarded for a statement without explanation. [4]
- (iii) The river has been widened and straightened, and the banks have been reinforced. Water flow will have increased. Each of these alterations will result in removal/disruption of sensitive habitats and, perhaps, creation of alternatives. A maximum of [2] will be awarded for an underdeveloped statement. [4]
- (b) Candidates are expected to discuss technical viability only. Reference to at least one example is expected.

**Level 3 ([5]–[6])**

A valid explanation as to why consideration should be given to technical viability at the planning stage is given. Reference to at least one example is made. Depth/details are present.

**Level 2 ([3]–[4])**

The explanation is valid but may be lacking in development of ideas. Reference to at least one example is made. Depth/details are restricted.

**Level 1 ([1]–[2])**

The explanation may lack relevance or validity. Reference to an example may be omitted. Depth and detail may be limited. A cursory answer only. [6]

- (c) This is a case study question and, therefore, reference must be made to a named sand dune ecosystem. Both elements of the question are synoptic and, as such, require reference to human and physical interplay of the study.

**Level 3 ([11]–[15])**

The answer refers to a relevant case study example and provides a high level of appropriate details regarding the effects of human pressure on the selected sand dune ecosystem. A range of relevant and valid remedial strategies is described with detail and their success evaluated strongly (either discreetly or generically). Synopticity is fully addressed.

**Level 2 ([6]–[10])**

The answer refers to a relevant case study example and provides appropriate details regarding the effects of human pressure on the selected sand dune ecosystem. Some relevant and valid remedial strategies are described although detail may be restricted or the answer may be incomplete or lacking in precise terminology. Although the success of the strategies is evaluated (either discreetly or generically), the evaluation is underdeveloped. Synopticity is addressed.

**Level 1 ([1]–[5])**

The answer omits case study detail, or provides limited depth and detail relevant to human pressure and its potential effect upon the ecosystem, or the associated remedial strategies. An inappropriate case study may have been used. The evaluation may be omitted or cursory. Synopticity is restricted. [15]

35

- 2 (a) Any coastal landform will suffice. Reference to place must be made, diagram/s drawn and description given. The description may be presented discreetly, or as annotation of the diagram.

**Level 3 ([7]–[8])**

Appropriate reference to place is made. A well-constructed and appropriate diagram/s is given with comprehensive description of the formation of the landform. Terminology is precise.

**Level 2 ([4]–[6])**

Appropriate reference to place is made. An appropriate diagram/s is given, although its quality may be restricted. Some description of the formation of the landform is given. Terminology may lack precision.

**Level 1 ([1]–[3])**

Reference to place may be neglected. The diagram/s may be absent or poorly-constructed and/or inappropriate. The description of the formation of the landform is incomplete or inappropriate. Terminology is imprecise/vague.

[8]

- (b) (i)** The resources show buildings set beyond the dune system and evidence of incipient dune erosion. Coastal protection measures have been put in place to protect the buildings and to maintain the dune system which acts as a buffer against the power of the waves. Some candidates might infer from the stem of the question that, as this is considered to be a tourist amenity, it is financially beneficial to maintain the dune system in order to attract visitors.

**Level 3 ([5])**

More than one valid and well-developed reason is presented with strong reference to the resources.

**Level 2 ([3]–[4])**

More than one valid reason is presented, although in an underdeveloped fashion. Some reference to the resources is made.

**Level 1 ([1]–[2])**

Only one valid reason may be presented. Comments may be cursory or irrelevant. Reference to the resources may be omitted. [5]

- (ii)** The gabion baskets and rock armour interfere with wave action, dissipating wave energy. The water may, however, still flow through the protection devices and then return to the sea. The gabion boxes, in addition, allow sand accretion and thus strengthen the dune base with eventual recolonisation. Specific names of strategies are not required.

**Level 3 ([5]–[6])**

Strong, valid explanatory comment is made on the measures with good use of terminology.

**Level 2 ([3]–[4])**

Some valid explanatory comment is made on the measures with some appropriate terminology.

**Level 1 ([1]–[2])**

Limited explanatory comment is made. Use of terminology may be poor. Comments may be invalid [6]

- (c) (i)** Case study material is a fundamental requirement of responses to this question. Specific details regarding the strategies employed in the management of the river should be given in a synoptic context for a case study of the appropriate scale.

**Level 3 ([5]–[6])**

A full description of the river management strategies is provided within the context of a relevant study. Both physical and human elements are addressed with relevant detail.

**Level 2 ([3]–[4])**

A description of the river management strategies is provided within the context of a relevant study, but it may be underdeveloped in terms of depth and detail. Both physical and human elements are present, but one may be more fully developed than the other.

**Level 1 ([1]–[2])**

A poor study, perhaps of an inappropriate scale, is used. Only one strategy may be presented. Inaccurate or irrelevant detail may be given. The synoptic element is not addressed. [6]

- (ii) Both the beneficial outcomes and the conflicts of interest associated with the river management scheme should be made explicit and supported with relevant detail.

**Level 3 ([8]–[10])**

The candidate provides a sound and detailed discussion of both the beneficial outcomes and the conflicts of interest associated with a relevant river management scheme at an appropriate scale. Consequently, synopticity is fully addressed.

**Level 2 ([4]–[7])**

Some details of the beneficial outcomes and the conflicts of interest are given, but the answer may be unbalanced, or lacking in depth of discussion. Synopticity is addressed.

**Level 1 ([1]–[3])**

The answer is underdeveloped in terms of discussion or lacks detail on either beneficial outcomes and/or the conflicts of interest. Terminology may be vague. There is no evidence of an attempt to address synopticity. A case study of an inappropriate scale or focus may have been used. [10]

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**Unit A Total**

**35**

**Unit B: The Nature and Vulnerability of Tropical Ecosystems**

- 3 (a) While some candidates may attempt to explain the location of all three tropical biomes the grassland is the only one for which such explanation is required. If no diagram is provided then confined to maximum Level 1. If only an annotated diagram is given, then maximum Level 2. The key is the climate and the explanation of the seasonal convectional rains following the annual migration of the overhead sun: i.e. the low pressure and rising air of the ITCZ in summer.

**Level 3 ([8]–[10])**

An appropriate diagram and accurate explanation are provided in which the role and annual migration of the Hadley cell creating the Wet/Dry tropics is clarified. The seasonal variation is linked to the nature of the vegetation in the tropical grassland biome.

**Level 2 ([4]–[7])**

An appropriate diagram and explanation are provided but their accuracy and/or depth are limited. Perhaps the climate is not directly linked to the seasonal nature of the grasslands.

**Level 1 ([1]–[3])**

Answers at this level lack an appropriate diagram. The explanation may be cursory, invalid or absent. [10]

- (b) A range of areas of contrasting characteristics should be noted from depth, colour, acidity, structure and chemistry. Precise details, including figures from the resource, should be quoted. Candidates may choose to account for each characteristic in turn or give an overview of the reason for the contrasts, either approach is acceptable. Climate is, not surprisingly, the dominant factor in zonal soils. The nature of climate especially the role of water in soil processes and vegetation are the primary areas to be developed.

**Level 3 ([8]–[10])**

Accurate use is made of the resource, with a range of characteristic contrasts and an account of the different climates' role in soil formation processes is provided.

**Level 2 ([4]–[7])**

A range of contrasting characteristics is identified from the resource material but the explanation may not account for the contrasts noted. A narrow range of contrasts which is well explained would attain this level. Alternatively both description and explanation are underdeveloped.

**Level 1 ([1]–[3])**

Some characteristic contrasts are noted, but the explanation is absent or erroneous. Only one characteristic, with an explanation, would be confined to this level. [10]

**syn (c)** All three elements must relate to a stated regional context. There is no requirement for a balance between the three and benefits may be less developed than impacts and solutions.

It should be noted that;

- potential benefits of irrigation require outlining only;
- salinisation impacts are to be simply described; while
- the possible solutions are to be evaluated.

A synoptic approach is essential to a Level 3 answer.

**Level 3 ([11]–[15])**

Benefits, impacts and possible solutions are all presented, in response to their command word, and placed within the regional context. Descriptions contain specific case study detail and the suggested solutions are evaluated.

**Level 2 ([6]–[10])**

A suitable regional study is named and some details provided, but the depth is limited in one or more of the three aspects. A synoptic approach may not be present.

**Level 1 ([1]–[5])**

One or more of the three key aspects is entirely neglected or no regional case study detail is provided even if a suitable case study is named. Terminology may be inaccurate or inadequate. [15]

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**4 (a)** A Gersmehl style diagram with proportional circles as stores (biomass/soil/litter), unidirectional flows between these and inputs and outputs, is the most likely choice. Flows would be drawn proportional to rate of transfer. However, the question could be answered with a simpler non-proportional diagram. In this latter case the text description would need to be more detailed. The flows are the key focus of the question though many will note the dominance of the Biomass nutrient store. Note the command word is “describe” and not “explain”.

Transfers between stores are rapid (wide) especially uptake from soil and decomposition of litter. The inputs of rainfall and weathering of parent material are rapid as are the losses due to surface run-off and leaching.

**Level 3 ([7]–[9])**

An appropriate and accurate diagram is given and the inputs, transfers and outputs are all described in the context of a tropical forest ecosystem.

**Level 2 ([4]–[6])**

Either the diagram provided or the written description of nutrients flows is limited in detail and precision.

**Level 1 ([1]–[3])**

Answers that lack an appropriate diagram would be confined to this level. [9]

**syn (b) (i)** Both economic and environmental aspects need to be addressed. More can be said on the economic side including the potential annual economy (£154 m for tourism etc and only £3 m for ethanol production). The fact that the biofuel crops are subsidised in Uganda and that other areas would be better suited to the growth of sugar cane are related economic factors. The use of the forest for cash crops would put the Ugandan government in breach of an agreement with the World Bank – another significant economic factor. The forest itself dominates the foreign income from eco-tourism, the nation’s second most important sector for revenue from abroad.

Environmentally a large area of the country’s premier forest would be impacted (7000 of 30 000 ha). A pristine forest with over 200 tree species, 300 bird species and dozens of endangered animals including mammals (Grey-cheeked Mangabeys) and birds (Nahan’s Francolin) is under threat. Even the World Bank recognised the need to preserve this “jewel” in Uganda.

**Level 3 ([7]–[8])**

The answer discusses both the economic and environmental reasoning behind the decision, using and developing evidence from the resource while demonstrating an understanding of the factors.

A synoptic understanding is demonstrated in the answer.

**Level 2 ([4]–[6])**

Use is made of resource material but this is underdeveloped in discussion. Perhaps no clear distinction is made between economic and environmental factors.

**Level 1 ([1]–[3])**

One or other of the two aspects, economic or environmental, is neglected.

[8]

**(ii)** The land can sustain eco-tourism along with primary economic activities of appropriate agriculture and fishing. Without protection the long-term future of this mixed economy is under threat.

The range of economic activities and the comment on the future are key points regarding sustainability that should be highlighted. [3]

**(c)** The question demands several elements:

- description and explanation;
- two tropical biomes, forest and semi-arid;
- differences in three aspects, biomass, productivity and trophic structure; and
- references to regional case studies.

Consequently there are potentially many differing approaches to an answer. Descriptions of biomass and productivity should contain appropriate values though the requirement for regional studies does not imply a detailed description of case study material. The explanation of contrasts is, naturally, the climatic differences – primarily rainfall (total and seasonal distribution).

**Level 3 ([11]–[15])**

An answer with an accurate description of the three contrasting aspects, with values and relevant location references, that provides an explanation would attain this level.

**Level 2 ([6]–[10])**

At least one of the noted key aspects is absent. Alternatively, the description is imprecise or the explanation lacks depth.

**Level 1 ([1]–[5])**

More than one of the key elements is overlooked in the answer, for example, no references to regional studies and no comment on trophic structure. [15]

**Unit B Total**

**AVAILABLE  
MARKS**

35

**35**

### Unit C: Pollution and its Management

- 5 (a) Candidates should indicate whether or not they agree with the definition as set in the question.

They may take issue with certain elements: is pollution always human induced; what constitutes harmful etc.

#### Level 3 ([5]–[6])

The candidate provides strong valid discussion indicating the extent to which they agree with the definition as given.

#### Level 2 ([3]–[4])

The candidate provides some valid discussion indicating the extent to which they agree with the definition as given, but depth and detail are restricted.

#### Level 1 ([1]–[2])

The candidate provides limited valid discussion indicating the extent to which they agree with the definition as given. [6]

- (b) (i) Isolines [1] may be useful in this context because they are relatively straightforward to construct, and, in the absence of complete data, interpolation is possible. Visually, isolines are effective in showing change in concentration over area. At least one valid reason must be given. Credit may be given for valid discussion of incorrectly named technique. [2] [3]

- (ii) Candidates are required to identify both economic (woodcutting, agriculture) and social (health, alterations to infant mortality) reasons, although there is no requirement to do this discreetly and some implications (such as the vast areal extent of the pollution and consequent numbers affected) may overlap. Reference to resources is required.

#### Level 3 ([5]–[6])

Clear and relevant points relating to the economic and social implications of radiation pollution linked to the Chernobyl incident are discussed with strong use of the resources.

#### Level 2 ([3]–[4])

Some relevant points relating to the economic and social implications of radiation pollution linked to the Chernobyl incident are discussed with restricted use of the resources.

#### Level 1 ([1]–[2])

Little or no reference to the resource is made, and/or the answer is underdeveloped or there is a general lack of clarity or restricted range of comment. Either social or economic considerations may be neglected. [6]

- (iii) Evidence from Resources B and C should be used to make comment regarding the limitations of our knowledge of the impacts of radiation pollution.

**Level 3 ([5])**

Clear and relevant points derived from the resources are used to make well-developed comment relating to the limitations of our knowledge of the impacts of radiation pollution.

**Level 2 ([3]–[4])**

Relevant points derived from the resources are used to make comment (albeit under-developed) relating to the limitations of our knowledge of the impacts of radiation pollution.

**Level 1 ([1]–[2])**

Some ideas are presented, but relevance may be compromised, reference to the resource may be restricted, there may be straight lift from the resources or the comments may be of a cursory nature only. [5]

- (c) This is a synoptic question, requiring recognition of the interplay between the physical and human environments in an appropriate case study context.

**Level 3 ([11]–[15])**

An appropriate case study is identified. The challenges of urban waste disposal in the chosen location are described with a high level of detail. The discussion of the role of recycling, reduction and reuse in meeting these challenges is well developed. Appropriate case study details are present throughout. The interplay between human and physical environments is fully addressed.

**Level 2 ([6]–[10])**

An appropriate case study is identified. Both the description of the challenges of urban waste disposal and the discussion of the role of recycling, reduction and reuse in meeting these challenges are addressed, although there may be some under-development or imbalance. Some appropriate case study details are present throughout. The interplay between human and physical environments is addressed.

**Level 1 ([1]–[5])**

The case study context and/or scale may be inappropriate. Either the description of the challenges of urban waste disposal and/or the discussion of the role of recycling, reduction and reuse in meeting these challenges are omitted or dealt with in a cursory manner. Case study details may be restricted. Synopticity may be neglected. [15]

35

- 6 (a) Candidates may make reference to the rare and the continuous hazard of pollution and provide some exemplar material.

**Level 3 ([5])–([6])**

The candidate provides strong valid comment regarding the possibility of classifying pollutants according to frequency of occurrence, most probably rare and continuous. More than one reference to place is made which is appropriate and relevant to various elements of the classification offered.

**Level 2 ([3])–([4])**

The candidate provides some comment regarding the possibility of classifying pollutants according to frequency of occurrence, most probably rare and continuous, but depth and detail are restricted. At least one reference to place is made.

**Level 1 ([1])–([2])**

The candidate provides limited valid comment regarding the possibility of classifying pollutants according to frequency of occurrence. Locational reference is absent or inappropriate. [6]

- (b) (i) The hourly figures for a daily period would be cumulated and averaged to arrive at the daily mean concentration of SPM. [2] This statistic may be considered appropriate for the purpose because, for example, it is relatively easy and quick to calculate, the effect of anomalies is reduced and comparisons between data over time can be made easily. At least one valid reason given. [2] [4]
- (ii) Both description of steps taken (AQMA's, Action Plans, collaboration, monitoring, sustainable travel plans) and evaluation are required, with reference to resource material.

**Level 3 ([5])–([6])**

Strong description is given and well-supported with material drawn from both resources. A well-developed evaluation is presented, either discreetly or generically.

**Level 2 ([3])–([4])**

Some description is given and supported with resource material although perhaps in an under-developed fashion. An evaluation is presented, either discreetly or generically, but may be under-developed.

**Level 1 ([1])–([2])**

The description and/or evaluation may be of restricted quality and/or depth. Use of the resource material is either limited or presented as a straight lift. The answer may be cursory in nature. [6]

- (iii) SPM affects mucous membranes. Eyes and the respiratory system will suffer. In the short-term, effects may be manageable; in the long-term, SPM may contribute to morbidity. Award max [2] for under-developed but relevant comment. Award max [4] for well-developed and relevant comment such as that which recognises that effects may be both short and long-term. [4]

- (c) Candidates should discuss the economic, social and environmental threats posed by emission of greenhouse gases into the atmosphere at the global scale.

**Level 3 ([11]–[15])**

Each of the requirements (economic, social, environmental) is strongly addressed with appropriate details and at a global scale. Terminology is precise. Synopticity is fully addressed.

**Level 2 ([6]–[10])**

Each of the requirements (economic, social, environmental) is addressed with some details although perhaps in an unbalanced fashion. Some recognition of global scale is made. The answer may be lacking in precise terminology. Synopticity is addressed.

**Level 1 ([1]–[5])**

The answer omits one or more of the key components (economic, social, environmental), or provides limited depth and/or relevant detail. A case study of an inappropriate scale may be used. Synopticity is restricted. [15]

**Unit C Total**

**AVAILABLE  
MARKS**

35

**35**

**Unit D: Natural Hazards and Human Activity (Jan 2009)**

- 7 (a) (i) Only the hazards of the intermediate zone are required: namely lava flows, lahars, ash falls and Nuee Ardente. It is the negative social and economic impacts of these that should be described and illustrative reference to places given. Answers will be varied in nature and it is not expected that all four intermediate zone impacts will have social and economic impacts and locations named.

**Level 3 ([5]–[6])**

Both social and economic impacts are described for appropriate intermediate hazards. These are accurately illustrated with references to places.

**Level 2 ([3]–[4])**

The description is underdeveloped, perhaps with little reference to place or only referring to one or two of the intermediate zone hazards.

**Level 1 ([1]–[2])**

One or more of the key elements is overlooked – intermediate zone, social/economic impacts or reference to place to illustrate. [6]

- (ii) Similar to (i) the question requires three elements, firstly, use of some of the hazards shown on the resource, secondly, potential benefits for both the environment and the economy and finally, reference to places. The table show examples of these but others would be equally valid.

HAZARD	Environment or economic benefit	Place for illustration
Lava flow	Creation of new land. Potential tourist attraction. Creation of valuable minerals – sulphur or veins of copper and tin.	Extension of coastline in Hawaii/ Improved harbour protection in Heimaey. Tourist visits to Kilauea/Etna etc. Ijen, East Java. Cornish Tin.
Ash fall	After weathering, increase in soil fertility and therefore natural productivity. Increased potential yields for agriculture. Deposited sediment, e.g. Pumice.	Increased berry production Alaska 1912. Intensive arable farming in Indonesia, Sicily and elsewhere On the slopes of Mt Vesuvius, Italy.

**Level 3 ([7]–[8])**

The candidate uses at least two of the hazards and provides a discussion of how these can bring benefits to both the environment and the local economy. Locational examples are given to illustrate these.

**Level 2 ([4]–[6])**

An answer that provides the basic material but lacks discussion would be confined to this level. There may be little reference to place.

**Level 1 ([1]–[3])**

The response is very restricted in one of the key areas: perhaps no relevant locations are given, only one hazard is discussed or one of environment, economic benefits is absent. [8]

- (b) At least two relevant methods are required and the operation of each needs to be clearly described and evaluated. While not required, some may use a specific case study; this should be assessed in the light of the specific demands of this question.

**Level 3 ([5]–[6])**

The methods are described accurately and a valid comment is made on their effectiveness.

**Level 2 ([3]–[4])**

The evaluation of the methods may be limited or inaccurate or the range/description of valid methods restricted.

**Level 1 ([1]–[2])**

Little of relevance is provided perhaps beyond naming methods. Either the description or evaluation may be absent. Perhaps only one method is presented. [6]

- syn* (c) Two appropriate case studies are required, one LEDC one MEDC. In each case detail of how knowledge and perception influenced the primary and secondary impacts and their management must be provided. There should be a clear recognition that perception and knowledge are different factors. Some may handle each study in turn and discuss the role of perception and knowledge at the conclusion. Others may choose to describe the impacts and management in light of perception and knowledge throughout. Any approach is acceptable given that the key points are addressed. A synoptic approach should be identified.

**Level 3 ([11]–[15])**

Details of the impacts of two relevant case studies are described and the role of both knowledge and perception in their management is discussed.

**Level 2 ([6]–[10])**

The effects of two appropriate case studies are described but the detail of their impacts **or** the influence of either perception or knowledge on their management is limited in precision.

**Level 1 ([1]–[5])**

An answer that perhaps deals with only one relevant study, or lacking the focus of knowledge or perception would be confined to this level. cursory appropriate detail may be provided. [15]

- 8 (a) Only one of the two margins is required and a diagram must be provided. The answer should focus on the explanation of where and why earthquake and volcanic activity occurs for the selected margin. There is no requirement to name or use a named margin so a generic diagram and explanation are expected. Relevant and technical terminology should be used in each case and the diagrams should be clear and an integral part of the explanation. In each case the role of convection currents in the upper mantle (asthenosphere) is a vital element. In destructive margins either oceanic to oceanic or oceanic to continental margins may be used. Subduction is the key process in destructive margins while sea-floor spreading is the equivalent in constructive boundaries. If no diagram is provided the answer is confined to Level 1.

**Level 3 ([8]–[10])**

A relevant, accurate diagram is presented which is integrated into an explanatory account of the distribution of earthquake and volcanic activity at the margin. Precise terminology is given.

**Level 2 ([4]–[7])**

A diagram and explanation are both provided but one or other is limited in depth or detail. Perhaps the answer does not focus on the distribution of both earthquake and volcanic events.

**Level 1 ([1]–[3])**

An explanation, of any quality, without a diagram is confined to this level. Alternatively, a poor diagram with an explanation lacking detail and good terminology would be similarly restricted. [10]

- (b) (i) **A** – In southern India in an average year the summer, wet monsoon arrives in the first week of June (2/3rd) and lasts for about five and a half months (to mid-November). Forty percent of the region's annual rainfall is attributed to this seasonal rain [2 marks for any 2 out of 3 variables].  
**B** – On the border of north east India the arrival of the summer monsoon rain, in an average year, is in early July (around the 10th). The seasonal rain lasts for two and a half months (mid-late September) during which the majority, 80%, of its annual rain falls [2 marks for any 2 out of 3 variables]. [4]
- (ii) In the case of **C**, the delay in annual rains would be at least six weeks and effectively shorten the rainy season from three and a half to only two months. The majority of the annual rainfall at **C** is due to the summer rain thus there is the potential for water shortage and drought. Two marks are available for the use of the resources while the remaining four marks are for the discussion of possible impacts. No specific location information is required but this may be used. Valid suggestions would involve shortages for human consumption and especially for arable agriculture in the region. Both potential social and economic impacts should be discussed. [6]

**syn (c)** Either a prolonged drought or extreme storm event from a mid-latitude location is required. Two specific aspects are to be described: the impacts and the human responses. The question is synoptic and the interaction between people and the event needs to be developed. The command word is describe so a high level of detail is expected across both areas of this question.

**Level 3 ([11]–[15])**

An appropriate mid-latitude event and both its impacts and the response are described. Terminology is clear and the answer is well structured. Better candidates may discriminate between short- and long-term responses.

**Level 2 ([6]–(10))**

An appropriate mid-latitude event is described but the range and depth of the details provided is limited or some inaccurate material is given. While both aspects, impacts and response, are noted there may be a significant imbalance in their description.

**Level 1 ([1]–(5))**

The answer may be inappropriate or the detail in one of the two required aspects is poor. [15]

**Unit D Total**

**Total**

35

**35**

**70**





*Rewarding Learning*

**ADVANCED**  
**General Certificate of Education**  
**2009**

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## **Geography**

**Assessment Unit A2 2**

*assessing*

**Module 5: Processes and Issues in  
Human Geography**

**[A2G21]**

**MONDAY 19 JANUARY, AFTERNOON**

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**MARK  
SCHEME**

## Unit A: Impact of Population Change

AVAILABLE  
MARKS

- 1 (a) (i) [1] for the name of the measure.  
[2] for the calculation, expressed in text or as a sum. All details must be present for [2]. [3]
- (ii) [1] for choosing the correct type of graph: a line graph or a bar graph.  
[1] for labelling both axes.  
[1] if it is completed successfully. [3]
- (b) (i) A number of reasons can be gathered from the resources, showing both social and physical barriers to be reduced.
- Transport and communications are easier now. This means the physical barrier, the land and sea to be crossed, is lessened.
  - These improvements also allow for people to be able to return to their place of origin more readily than in the past, as well as to keep in touch. Thus ties are not completely severed and what could be called the emigrant's wake situation does not happen (the emigrant's (or American) wake happened in Ireland when the wake was held for the migrant before they left, given that his or her family in Ireland would never see them again).
  - Nor is complete cultural assimilation expected, the resource shows that language does not have to be abandoned, hence the Polski sklep sign. This eases the migrant's path.
- Sub-optimal:
- No resource use, maximum [2].
  - Only one barrier discussed, maximum [2].
  - One barrier and no resource use [1]. [4]
- (ii) The "transnationalism" form of migration impacts on services in the destination in that, as seen, specialist shops and other businesses are set up. This adds to their knowledge of the impacts of migration on services and other economic activity, such as the increased demands for education, health etc., as well as the migrants being a (usually cheap) labour force.
- Transnationalism migration means that the migrant is keeping up ties with his/her origin, including, as the resource mentions, an economic connection. Visits back home mean that some of the spending and, thus, demand for services is in the place of origin, whilst the resource also mentions the importance of remittances and investment capital which will have a positive impact on services and other economic activity. The traditional form of migration, when migrants "had to sever their ties with their homelands", often impacted negatively on services and economic activity in the area of origin, once any overpopulation had been reduced.

- Services and economic activity are different in that whilst services are an economic activity, not all economic activities are in the service sector. Such nice distinctions are not required here and they can deal with services and economic activities as a whole.
- No resource use, maximum Level 2
- No extra material, maximum Level 2.
- The question is on “implications”; no reward for material on reasons for migration.

### **Level 3 ([8]–[10])**

Candidates here deal with the changing impacts: for example transnational migrants do not sever their ties to their area of origin, meaning that negative impacts of migration on services are lessened. There is resource use and their own material. The answer uses appropriate language and terminology.

### **Level 2 ([4]–[7])**

Here the candidate shows command of the topic, but the answer may lack depth, thus the changing way migration impacts on services and economic activity in the modern transnational era may be missed. Only very good answers which miss either resources or their own material get into Level 2.

### **Level 1 ([1]–[3])**

Answers here have some merit, but through reasons of length or depth fail to demonstrate full grasp of the topic or the material. Language use may be inadequate. [10]

- (c) Often questions on population policies focus on either reasons for the policy or the impacts of the policy and some candidates penalise themselves by writing too broadly and including irrelevant material. This time, the question asks for both reasons and impact so this problem should not arise. To make space for both these matters to be considered, they have to deal with only one of their two case studies; no comparisons are required. Thus we can expect depth and detail in their answers, do not be impressed by generalities attached to a name.
- If they do only “considerations behind”, maximum Level 2.
  - If they do only “impacts”, maximum Level 2
  - The only other sub-optimal problem I can foresee is that a candidate might have been prepared for a “compare and contrast” challenge and wander into his/her other case study. If so, just ignore irrelevant material in the usual way.

### **Level 3 ([11]–[15])**

The answer here has reasonable balance between reasons and impact. There is considerable detail about the case study: places, statistics, policy details etc., as appropriate. The answer uses correct language and terminology.

### **Level 2 ([6]–[10])**

If only one of the two tasks is presented, it has to be done well to gain access to Level 2. Most answers here will deal with both aspects of the question but not in sufficient detail to gain higher reward.

**Level 1 ([1]–[5])**

Answers here have material worthy of credit but not of high reward as they might be too short or unfinished or lack understanding and knowledge. [15]

AVAILABLE MARKS
35

- 2 (a) (i) Two problems caused by a declining birth rate. The resource mentions age dependency, if not using the term, also that immigration has been “propping up the population” and that this has led to social problems. Other problems from their own experience are acceptable.
- [2] for each of two problems.
  - No resource use, even implicit, maximum [2] [4]
- (ii) • There are two major policy areas, increasing fertility and encouraging immigration. Another area is mentioned in the resource, having people “work until they drop”, not itself an effective slogan, but containing the idea of delaying retirement.
- They can bring in as many policies as they like and they can go beyond the resource to seek for them, but if there is only one policy discussed, maximum [2].
  - There are only [4] marks available here, don’t seek a very detailed answer. Identification of at least two policies and a brief explanation as to why they would address the problems is sufficient. [4]
- (iii) The resource mentions emigration, which takes away the young and fertile, especially from places like Sommapreda. It also highlights the decline in Total Fertility Rate from 2.67 in 1965 to 1.2 now, which should remind candidates of the changing attitudes to career and families amongst European women in recent decades. There is a range of other factors from availability of resources to social dislocation to population policies that they can bring in. They can bring in case study material if they want, but full marks are available to an answer that does not stray from the theoretical for their own material.
- No resource use, maximum Level 2.
  - Only resource used, maximum Level 2.

**Level 3 ([5]–[6])**

There is sufficient use of the resource, backed up by their own material, perhaps, but not necessarily, supported by relevant case study reference. The candidate has command of the topic and is able to answer in depth, using appropriate language and terminology.

**Level 2 ([3]–[4])**

The answer maintains reasonable focus on factors that influence fertility. If the answer is sub-optimal as identified above it has to be well-written to get Level 2. Language and terminology are acceptable but depth may be lacking.

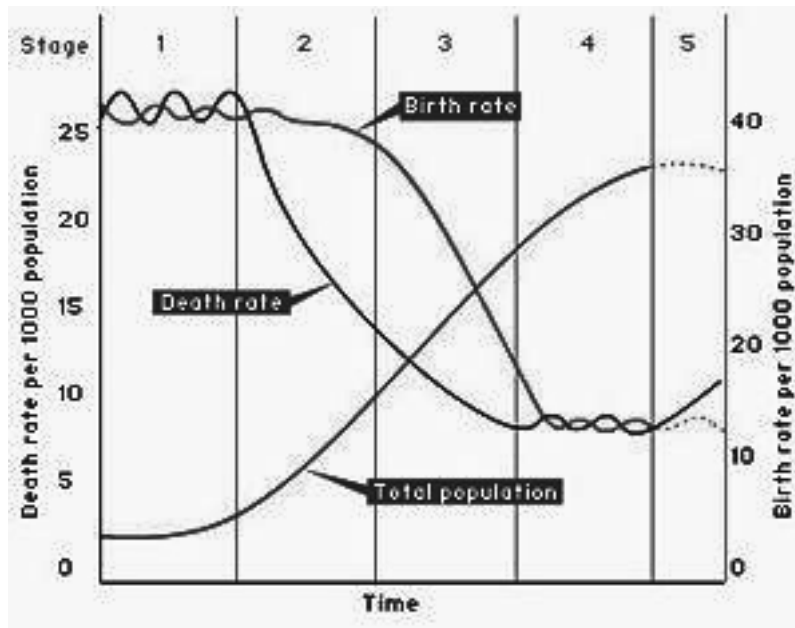
**Level 1 ([1]–[2])**

Answers here have partial merit but lack the detail and understanding necessary for high reward.

[6]

AVAILABLE  
MARKS

(iv)



[1] both axes correctly labelled

[1] identification of stages, accept 4 or 5 stage model

[1] birth rate curve present and accurate

[1] death rate curve present and accurate

[1] total population curve present and accurate

[1] location of Italy in Stage 5 (stage 4 acceptable if candidate has only 4 stages in her/his model; not acceptable in a 5 stage model) [6]

(b) Impacts of emigration upon an area of origin can be both positive and negative.

- Positive if population pressure is relieved and/or migrants send back remittances or investment funds for the people and the area.
- Negative if the demand for goods and services falls below the thresholds needed to keep them going, thus affecting the lives of the people still there. Migration is usually of young people which may have implications for economic productivity. There can also be negative social connotations with families sundered and communities affected.

Regarding the area of destination, again there can be positive and negative connotations.

- Positive: migrants can help develop an area and provide a labour force as well as contributing to demand for goods and services.
- Negative connotations might be social problems from ethnic/racial issues to anger at migrants being perceived to take locals' jobs (or driving wages down), or goods such as housing, even sexual partners.
- Their case studies are of an area of origin and an area of destination. If either is missed, Level 2 maximum.
- If the answer is purely theoretical with no case study detail, Level 1.

**Level 3 ([11]–[15])**

The answer is above all else full, with two case studies, often realising that there are both positive and negative consequences of migration. The case studies are detailed; the language and terminology are both good.

**Level 2 ([6]–[10])**

Full answers which are focused but may lack balance and or depth.

**Level 1 ([1]–[5])**

Answers without case studies are here along with answers which, although having something worthy of reward, lack full understanding or are too short and underdeveloped. [15]

**Total Unit A**

**AVAILABLE  
MARKS**

35

**70**

- 3 (a) (i) They will have studied primary and secondary factors that can be used to identify an ethnic group. They should be aware that clear-cut divisions have been blurred over time as a result of international migration and that often perceived ethnic identity is more important. In the example of the UK the situation is very complex due to the long established ethnic groups. Resource 3 shows the ethnic classifications used in the last census. Column A gives a broad classification into six main groups. The ethnic groups are further subdivided using a combination of primary factors such as nationality in the case of Asian/Asian British and racial origin in the case of Black/Black British. The classification is a complex one and the inclusion of “other Asian”, “Black other” and “other ethnic group” emphasises the complexity. The classification is not a straightforward one but they should use this point in their answer. The resource is there to help them so they need extra material and this is where they will show an understanding of how ethnic classifications are made. Some reference to primary and secondary factors should be made. They will need to explain the inadequacies of a simple classification and make good use of the resource.
- No resource use award from **Level 1**
  - No extra material award from **Level 1**

**Level 3 ([6]–[8])**

A thorough answer, which uses the resources well and has useful additional material all written in good English.

**Level 2 ([4]–[5])**

An answer at this level will still have good material, but the depth and detail will be less than the previous level. English is of acceptable quality.

**Level 1 ([1]–[3])**

Apart from the situations described above, answers at this level will have serious weaknesses in terms of detail, depth and accuracy. There may also be errors in English. [8]

- (ii) Proportional circles would illustrate the information in Column B where the area of the circle is proportional to the total numbers. The circles can be combined with pie charts to show the sub-divisions within each group. The data are cumbersome and would require some manipulation but we are not requiring them to construct anything. All of the marks will be allocated based on their understanding of the two techniques. Allow **1 mark** for an understanding of each of proportional circles and pie charts and **1 mark** for how they could be applied to the data shown. [3]

- (b) Separation, integration and assimilation are all possible outcomes of ethnic contact. Here the candidate will have to explain each process and discuss the extent to which they agree with the statement. There is no right answer. Marks will be allocated according to the argument they present which will be determined by their evaluation of the three outcomes. There is no requirement for examples but many will use them but no penalty for those who answer without them.
- If one of the three outcomes is not discussed, award **Level 2 maximum**.
  - If they do not address the time element in the statement but everything else is included, award **Level 2 maximum**.
  - Multiple errors, award **from within Level 1**.

### Level 3 ([7]–[9])

All aspects of the question are addressed thoroughly and there is clear understanding shown. The discussion has both depth and detail and the candidate presents a logical argument and justifies his/her opinion of the statement. The answer is written in grammatically correct English.

### Level 2 ([4]–[6])

Apart from the situation described above, at this level there is still a competent answer but it has less depth or detail in the argument or the outcomes are less well understood. Use of English is still good.

### Level 1 ([1]–[3])

Apart from the situation described above, an answer at this level will show incomplete understanding of the question or have so little detail that a higher mark cannot be justified. There may be weaknesses in English also. [9]

- (c) The specification lists a number of processes creating ethnic diversity. Here they have to contrast the processes causing “ethnic diversity” in their MEDC colonial power and in their LEDC colony. Obviously, the detail of their answer will depend on their case study choice. We might see the processes of colonisation and annexation operating only in the LEDC colony. Migration would operate in both case studies but for different reasons. In the case of the LEDC colony migration of a ruling class and military personnel or the forced movement of a labour force would all lead to ethnic diversity. In the MEDC colonial power migration of those looking for a better lifestyle etc., leads to ethnic diversity. It should be noted that the colony need not have belonged to the colonial power.
- If they do not contrast the processes and there is only a discussion of processes, then award out of **Level 2**.
  - If there is no case study and there is only a discussion of processes, then award out of **Level 1**.
  - An excellent single case study can be placed into **Level 2**.

### Level 3 ([11]–[15])

There is a correct choice of case studies. There is good understanding shown. The processes are understood and there is good contrast made and there is depth and detail. The answer is well-written.

**Level 2 ([6]–[10])**

Apart from the situation described above, the case studies are still correctly chosen but there is less detail and depth throughout or the contrasts are handled less rigorously than at the previous level. English is still good.

**Level 1 ([1]–[5])**

Apart from the situation described above, this answer is lacking in detail and depth on all aspects or there may be incorrect information. Use of English may be flawed. [15]

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- 4 (a) (i) Federalism, a tiered system of government, is a political accommodation in ethnically diverse societies usually where there is a distinct regional distribution of the ethnic groups. In that sense Belgium is, in theory, ideally suited to federalism. Each of the two states will have some political control over their own affairs with overall national control remaining in the capital city of Brussels. However, the reality is that the division of the country along ethnic lines has in recent times facilitated moves for separation. The underlying reasons in Belgium stem from economic differences between the two states as well as lack of national identity and the emphasis on the distinctiveness of each state in terms of language. All of this is in the Resources but they have to go further and add extra material of their own. This can be in the form of other examples or a greater discussion. They must then evaluate federalism and decide whether they regard it as a viable political solution in ethnically diverse societies.

- If there is nothing more in their answer apart from what they have taken from the Resources, then award from **Level 1**.
- If there is no resource use, then award from **Level 1**. Resource **4B** is there to help their understanding but no penalty if there is no overt reference to it.
- If there is no evaluation, **Level 1**.

**Level 3 ([7]–[9])**

All aspects of the question are addressed thoroughly and there is clear understanding shown. The resources are used to good effect, the discussion has both depth and detail and the extra material is accurate and relevant. The answer is written in grammatically correct English.

**Level 2 ([4]–[6])**

At this level there is still a competent answer but it has less depth or detail in the discussion or resource use may be less rigorous. Use of English is still good.

**Level 1 ([1]–[3])**

Apart from the situation described above, an answer at this level will show incomplete understanding of the question or have so little detail that a higher mark cannot be justified. There may be weaknesses in English also. [9]

(ii) The Location Quotient shows the degree of concentration of unemployment (in this case) in each state in comparison with the national figures. Values of less than 1 in one state mean there are lower unemployment rates (Flanders), values in excess of 1 mean that unemployment is greater than the national average (Wallonia). For the full marks they do need to show an understanding of the range of values. Award **2 marks** for understanding what the location quotient shows and **1 mark** for the explanation of the values. [3]

(b) **Historical animosities** are often a cause of ethnic conflict because of the preservation of the memory of injustices visited on one section of the population by another. The different interpretation of the same event by opposing sides in the community results in potential or actual conflict.

**Human rights abuses** refers to the denial of basic human rights to a section of the community. The degree of abuse ranges from discrimination to actual physical harm. Human rights are guaranteed to an individual or community by international law and their denial to a section of an ethnically diverse society can result in conflict.

Allow **1 mark** for a definition of each process and the other **3 marks** for how each can cause ethnic conflict. Better answers may use examples as that would make it easier but full marks are available to those who provide a full answer without the use of examples.  $2 \times 4$  marks

If they run the two processes together, mark out of 8 (**Level 3 [6]–[8]**, **Level 2 [4]–[5]**, **Level 1 [1]–[3]**). [8]

(c) This is case study material of ethnic conflict in a **MEDC** and a **LEDC**. They have to describe the nature of the conflict and the outcomes that have resulted.

- If they only use one case study, **Level 2** available for a good answer.
- If they omit either the nature of the conflict or the outcomes from one case study, award from **Level 2 maximum**
- Multiple errors, award from **Level 1 maximum**

### **Level 3 ([11]–[15])**

There is a correct choice of case studies. There is good understanding shown with depth and detail in all aspects. The answer is well-written.

### **Level 2 ([6]–[10])**

Apart from the situation described above, this is still a competent answer but there is less detail and depth throughout or one aspect is only dealt with in a superficial manner. English is still good.

### **Level 1 ([1]–[5])**

This answer is lacking in detail and depth on all aspects or there may be incorrect information. Use of English may be flawed. [15]

## Unit C: Planning for Sustainable Settlements

AVAILABLE  
MARKS

5 (a) Minimising travel is the sustainable route. Establishing efficient systems regarding industrial production is particularly important as raw materials and manufactured goods have to be carried in addition to the workers. In this case the benefits to the firms of minimising transport costs are reflected in benefits to the environment in minimising emissions etc. Maximum [2] if the answer is just general about travel and transport and does not bring in the special factors of industry, the movement of materials and products. [4]

(b) (i) They can see that there are specific measures put in place for Dublin:

- Park-and-Ride at key sites;
- integrated ticketing;
- provision of bicycle racks at public transport stops;
- bus-rail connecting services.

In addition, the general policy is to have public transport perform the key task of bringing people into the city centre along radial routes.

Much investment has been put into the tram system, LUAS, which has integrated transport features:

- park and ride connections;
- bike racks at LUAS stops;
- 32 of 36 LUAS stops have an associated bus stop;
- LUAS connects the two mainline railway terminals.

So there are plenty of positives to write about. However, there are also negatives:

- despite the general policy, there is still not fully integrated ticketing;
- there is no provision for carrying ordinary bikes on LUAS;
- the two lines do not connect, with no public transport link between them.

If they just describe the system and do not set it within a concept of integrated transport, **Level 1**.

### Level 3 ([5]–[6])

The answer is full. There is a focus on integrated transport and the details taken from the resources on Dublin are apt. The candidate displays command of the material and has the appropriate terminology and language use.

### Level 2 ([3]–[4])

An otherwise good answer that is not balanced will be here. Full answers which have failed to pick out a sufficient range of details, too.

### Level 1 ([1]–[2])

Answers with some merit, but which lack focus on the question will be here together with those that fail to demonstrate understanding. [6]

- (ii) The resources show what public transport can and cannot do:
- it is good at bringing large numbers of people into nodes: “The main role of public transport will be to provide for trips along radial routes to/from the city centre”;
- but there is an acknowledgement that there are types of trips which it cannot easily deliver, with the all-important concept of viability being mentioned:
- “the main role of private transport will be to cater for inter-suburban trips and for trips in the outlying areas where no form of public transport is viable”.
- They have a case study of transport in a city, which they can use to help exemplify their own material but note there is no requirement for a case study to be used.
- No use of the resources: **Level 2** maximum.
  - No extra material: **Level 2** maximum.
  - A general answer on traffic management without focus on public transport: **Level 1**.

### Level 3 ([8]–[10])

The answer is full with material from the Dublin resources backed up with their own material. There is a proper focus on public transport within traffic management and there is use of appropriate terminology and language.

### Level 2 ([4]–[7])

Otherwise good answers that do not have either resource use or extra material placed. Full answers will lack the depth and detail required for higher reward.

### Level 1 ([1]–[3])

Answers have material worthy of reward but may lack focus on the question or fail to answer fully or with sufficient understanding. [10]

- (c) They have to explain how their chosen country has achieved its objectives of promoting sustainability. There are no comparisons to be made here; the task is a straightforward examination of their knowledge and recall based on their selected single case study. So, we need to see details: policies, places, legislation, things in action. The key word is “how”, “how has this outcome been achieved?”
- If they do not tell you “how” sufficiently, maximum **Level 2**
  - This is their national scale case study. If they answer with their urban material, **Level 1**.

**Level 3 ([11]–[15])**

The answer above all has depth. They have told you in detail “how” their country is acting effectively in the promotion of sustainability. There may be a general context, but the focus of the question is on the place. Language and terminology are appropriate.

**Level 2 ([6]–[10])**

Good answers which may lack a little focus will be here. Otherwise there will be those with insufficient depth for entry into Level 3. Language is adequate.

**Level 1 ([1]–[5])**

There is material to credit, but the answer lacks either knowledge or detail. It might not focus on the actual question set. A sub-optimal response was identified above. [15]

35

- 6 (a) “Out of town” is the key phrase. It has taken people and trade away from the nodes in the city to these places in the country where the access is by car. There might be a bus running past some of them, but the vast majority of the customers come by private transport. This is not good for sustainability. Then there is the issue of the use of land, greenfield land presumably in that it is “out of town”. The competition has harmed city centres so there is waste and loss there, too. The central areas of some small American cities have been particularly badly affected by the ubiquitous “mall” in that country. They don’t have to use examples, but the answer will benefit if they do.
- Expect more than one issue for [3] or [4]. [4]
- (b) (i) They study “leisure areas–open space/urban parks” so should know that these areas are important in sustainability terms in that they provide opportunities for leisure and exercise, can be useful in being sites for nature and are sometimes described as the lungs of the city. Don’t expect too much about Dubrovnik, here.
- Expect more than one issue for [3] or [4]. [4]

- (b) (ii) There are two major reasons.
- Tourism
    - Candidates can see that Dubrovnik is very attractive and that there is much tourism there. Tourists want to see the old, quaint city not something modern and redeveloped.
  - Heritage
    - There is the normal urban conservation/heritage issue and we can expect candidates to appreciate this. Within heritage, there is also the issue of Croatian national pride. Dubrovnik is a Croatian treasure; they were going to restore it to its former glory to make the point to the Serbs that Croatia was not going to be humbled. The Chief Examiner discussed this last point with a Croatian professor and had this confirmed. (Incidentally, that professor also pointed out that most foreigners mispronounce Dubrovnik; it should be DUbruvnik and not as we say DuBROVnik.)
  - Be impressed by candidates who get the national pride issue, but full marks are available for those who don't.
  - If they do not get beyond tourism, maximum [2]. [4]

(b) (iii) High density living generally has a number of benefits regarding sustainability:

- the use of land is minimised;
- the provision of services is made efficient, as the demand is concentrated within a small area;
- travel distances are minimised regarding trips to work, to avail of services and for leisure.

Regarding Dubrovnik

- There are no cars to be seen, thus no emissions.
- Dubrovnik is very historical and buildings are restored rather than demolished, which is a benefit for sustainability. This last point wanders a little from high density but allow it.

No resource use, maximum **Level 2**.

Only one benefit, **Level 1**.

### **Level 3 ([6]–[8])**

The answer is full and focused with some reference to Dubrovnik. A number of benefits, at least two, but probably more are identified. The answer displays good understanding and has some depth. Terminology and language use are appropriate.

### **Level 2 ([4]–[5])**

A good answer which has no resource use will be here. Full answers will have focus on the question but may lack depth and range.

### **Level 1 ([1]–[3])**

There is material worthy of credit, but the answer may be partial, such as identifying only one benefit, or undeveloped or lack proper understanding.

[8]

- (c)
- This is their Curitiba vs Los Angeles or equivalents. The question's focus is on policies, so the answers should appreciate that.
  - They are not specifically asked to compare their two studies so stand alone answers are not to be penalised although they may harm themselves by being presented in a repetitive fashion.
  - Candidates should be aware that regarding Los Angeles, which most of them have as their "less effective" case study, there are now recent policies under Governor Schwarzenegger to improve matters. Many candidates answering this section in the 2008 papers were aware of this and one hopes the same will be true this year.
  - If the answer just describes what occurs in the cities, without focusing on policies, maximum **Level 2**.
  - If they answer at the national scale, **Level 1**.
  - If they only have one case study or the answer is very unbalanced, maximum **Level 2**.

**Level 3 ([11]–[15])**

The answer has depth and balance. Both case studies are in useful detail and there is a concentration on the policies, rather than just a description of the outcomes. The candidate displays good understanding of the material and uses appropriate language and terminology.

**Level 2 ([6]–[10])**

An answer which deals much better with one city than the other can be here, providing that there is sufficient depth and understanding overall. Balanced answers will be of decent standard but may lack some focus or command of the material.

**Level 1 ([1]–[5])**

Level 1 answers have some worthwhile material but may lack sufficient balance or focus or, through lack of length or development, be unable to demonstrate proper understanding.

[15]

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## Unit D: The Changing Nature of Economic Activity

AVAILABLE  
MARKS

- 7 (a) (i) Ecotourism is an environmentally friendly or green type of tourist development. It aims to develop tourism for the benefit of local people as well as for tourists. It is usually small scale and aims to use the area's resources in a sustainable way. Look for the sense of it rather than a textbook definition.

The answer must include discussion of tourist development and protection of the environment for [2] or [3]. [3]

- (ii) Tourism management in the Galapagos Islands conforms to many of the principles of ecotourism by incorporating measures that will safeguard the wildlife in the long term, the increased use of World Heritage status to protect the unique ecosystem by law and promoting co-operation among all interested parties in the general management of the area. There is plenty for them to get from the resource so we should expect to see good answers here. The answer is in the resource but they need to use it effectively to address the issue of ecotourism. Do not over reward someone who simply rewrites the resource. Such an answer should be restricted to **Level 1**. As always they have to answer the question set.

### Level 3 ([5]–[6])

This answer has a clear focus on the management strategies on the Galapagos Islands and how they conform to the principles of ecotourism. There is thorough resource use and the answer is well-written.

### Level 2 ([3]–[4])

At this level, the candidate is still in control of the topic. There is still reasonable material on the management strategies and some attempt to link them to the question set. The main problem with an answer at this level is lack of detail.

### Level 1 ([1]–[2])

The sub-optimal situation above is here. Other Level 1 marks can be obtained through serious lack of detail or inaccuracies. [6]

- (iii) The main obstacle will be an economic one. Tourism brings short-term economic gains often greater than the income generated through traditional industries such as fishing. It is easy to understand why some local people might attach greater importance to short-term economic gain than to the principles of ecotourism. Local people may also object to the quotas on fishing or even to outside intervention in their home territory. For full marks they need to present a plausible reason for local opposition to the proposals and there needs to be some elaboration. [3]

- (b) Award out of **2 marks** for the definition of the term leakage. Leakage refers to income from tourism going out of the country of origin to some multi-national company, often from a poorer country to a wealthier one. The remaining **6 marks** should be awarded for their description of the negative impacts associated with leakage. There is no requirement for examples, but that would be the easiest way to answer this question. There is no set list of impacts but we might expect to see discussion of money from tourism going to the large tour companies rather than benefiting the source country, the best-paid and highly-skilled jobs going to foreigners, etc. There is no definite number of negative effects but they would need at least two to get beyond **Level 2**. If there is only one negative effect, award no more than **Level 1**.

**Level 3 ([5]–[6])**

This answer has sound information on the negative effects of leakage. Each negative effect is explained coherently in grammatically correct English.

**Level 2 ([3]–[4])**

At this level, the candidate is still in control of the topic. There is still reasonable material on negative impacts but they are fewer in number and/or the explanations are somewhat thin.

**Level 1 ([1]–[2])**

The sub-optimal situation above is here. Other ways of achieving Level 1 are through serious lack of detail or inaccuracies. 2 + 6 marks [8]

- (c) This is their case study of a manufacturing industry undergoing change. The case study can be either local or national in scale. There are two things to do here – describe the changes to their manufacturing industry and discuss the economic and environmental consequences of that change. Do not reserve half marks for each, as the detail they will have on each will depend on their case study. However, if one aspect is missed completely, then award from levels divided by two. Remember this is case study material and we should be guided by the normal requirements of a good case study answer, i.e. knowledge of place and detail.

**Level 3 ([11]–[15])**

There is a correct choice of case study. There is good understanding shown with depth and detail in both aspects. The answer is well-written.

**Level 2 ([6]–[10])**

The case study is still correctly chosen but there is less detail and depth throughout or one aspect is only dealt with in a superficial manner. English is still good.

**Level 1 ([1]–[5])**

This answer is lacking in detail and depth on all aspects or there may be incorrect information. Use of English may be flawed. [15]

- 8 (a) (i) They need to examine the positive and negative consequences that can result from changes in agriculture. They are to use the resource to help them, so additional material is required. Most of what is in Resource 8A deals with the negative consequences of modern farming methods so their extra material will have to deal with a deeper discussion of the points the resource highlights, together with a discussion of the positive consequences of agricultural change. From the resource, the negative consequences have resulted from increased production and the use of chemical fertilisers. Larger farms have become the norm with the resultant loss of the traditional rural landscape and wildlife threatened by the loss of habitats. The increased output along with EU policy that seemed to do little to restrict surplus production led to the infamous cereal mountains. The situation is currently changing and increased demand for food has led to price increases. There is little extra land that can be brought into production while the demand for biofuel crops and loss of land from rising sea levels may even see a reduction in available farmland. This near Malthusian-like scenario may lead us to consider genetically-modified crops. The positive consequences can deal with increased availability of food crops and increased incomes for farmers. The situation regarding GM crops and the benefits these crops may bring not just to our future food supplies but also to our fight against life-threatening illnesses are all positive outcomes of modern farming methods. However, Resource 8B shows that the public is not in favour of GM crops.

- If they omit Resource 8B, restrict to **Level 2**
- If there is no additional material, restrict to **Level 1**
- If they omit either positive/negative consequences, restrict to **Level 1**
- Multiple errors, **Level 1**

### Level 3 ([7]–[9])

There is thorough resource use and the extra material is relevant showing clear understanding of the topic. They may have more to say on one of the positive or negative outcomes but both must be addressed. The discussion has both depth and detail and the answer is written in grammatically correct English.

### Level 2 ([4]–[6])

Apart from the situation above, an answer at this level has less depth or detail in the discussion or there may be a lack of balance between positive and negative outcomes. Use of English is still good.

### Level 1 ([1]–[3])

In addition to the two situations described above an answer at this level will show incomplete understanding of the question or have so little detail that a higher mark cannot be justified. There may be weaknesses in English also. [9]

- (ii) Stratified sampling is used so that the sample population will display the same characteristics of age, sex and ethnicity as the total population. Award **2 marks** for knowing what a stratified sample aims to achieve and **1 mark** for some mention of the characteristics included. [3]

- (b) **Agribusiness:** refers to the “industrialisation” of farming. Often there is some connection with a large corporation. Farms are very large, modern, highly mechanised and often concerned with the production of one product only.

Agribusiness reflects changes in agriculture because it results in practices such as hedgerow removal, intensification of land use, farm amalgamation and the increased use of chemical fertilisers. All of these practices are geared towards increasing mechanisation and increased output. This is straightforward so we should expect to see good answers here. There is no requirement for examples but some may refer to their case study. Allow **2 marks** for a definition of Agribusiness and the remaining **6 marks** for the discussion. At least two changes need to be discussed to get beyond Level 2.

**Level 3 ([5]–[6])**

This is a competent answer showing sound understanding of the connection between agribusiness and agricultural change. The discussion uses appropriate terminology and is written coherently in grammatically correct English.

**Level 2 ([3]–[4])**

At this level, the candidate is still in control of the topic. There is still reasonable material on how agribusiness reflects changes in agriculture but there is less detail.

**Level 1 ([1]–[2])**

An answer at this level will show incomplete understanding of the question or have so little detail that a higher mark cannot be justified. There may be weaknesses in English also. 2 + 6 marks [8]

- (c) This is their case study of a tourism management. The case study can be either regional or national in scale. They have to describe the aims of the policy and then evaluate its success. The aims must be clearly set out in the context of the management policy and these aims are to be evaluated. Do not over reward an answer that makes only broad generalisations regarding the overall policy. We want to know which parts of the policy worked/failed. They should have information on whether or not the aims were realised. Remember this is case study material and we should be guided by the normal requirements of a good case study answer i.e. knowledge of place and detail.

**Level 3 ([11]–[15])**

There is a correct choice of case study. There is good understanding shown with depth and detail on the aims of the policy and there is useful material on evaluation. The answer is well-written.

**Level 2 ([6]–[10])**

The case study is still correctly chosen but there is less detail and depth throughout or one aspect, probably the evaluation, is only dealt with in a superficial manner. English is still good.

**Level 1 ([1]–[5])**

This answer is lacking in detail and depth on all aspects or there may be incorrect information. Use of English may be flawed.

[15]

**Total Unit D**

**AVAILABLE  
MARKS**

35

**70**



