# Published Mark Schemes for GCE AS Geography 

January 2009

# NORTHERN IRELAND GENERAL CERTIFICATE OF SECONDARY EDUCATION (GCSE) AND NORTHERN IRELAND GENERAL CERTIFICATE OF EDUCATION (GCE) <br> 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.

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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.

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AS 2 13

## ADVANCED SUBSIDIARY (AS)

General Certificate of Education January 2009

## Geography

## Assessment Unit AS 1 <br> assessing <br> Physical Geography

[AG111]

MONDAY 26 JANUARY, AFTERNOON

## MARK <br> SCHEME

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## Introductory Remarks

The assessment objectives (AOs) for this specification are listed below. Students must:
AO1 demonstrate knowledge and understanding of the content, concepts and processes;
AO2 analyse, interpret and evaluate geographical information, issues and viewpoints and apply understanding in unfamiliar contexts;

AO3 select and use a variety of methods, skills and techniques (including the use of new technologies) to investigate questions and issues, reach conclusions and communicate findings.

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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 is difficult to read. Markers should take 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

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

## Section A

1 (a) Candidates are required to thoroughly justify their chosen method and sample size in the collection of representative data. The aim provided in the written report should enable fieldwork reference to be verified. Alternatively, if sampling was not employed then a geographical justification of its inappropriateness should be sought. Maximum [3] if ONLY method OR size is discussed.

Level 3 ([5]-[6]) - Answer clearly demonstrates a sound understanding of how both sampling method and sample size were selected to produce representative data collection. A detailed, well-developed justification is provided with convincing and relevant reference to fieldwork.

Level 2 ([3]-[4]) - A general understanding is evident with recognition of the importance of both sample size and sample method. Alternatively the answer at this level may lack balance with reference to both aspects of sampling. Answer may also lack specific detail in relation to fieldwork.

Level 1 ([1]-[2]) - Some understanding evident with only a very weak justification of sample size and sampling method. Limited understanding evident of the concept of representative data collection. Alternatively one aspect of sampling may be completely neglected at this level. Reference to fieldwork is rather vague and may lack relevancy.
(b) The method selected must relate to the tabulated data submitted. Any one primary data collection method can be selected by the candidate.

Level 2 ([3]-[4]) - One primary fieldwork data collection procedure is described in detail with explicit reference to the fieldwork undertaken. The answer should provide a critical assessment of the usefulness of the method for the collection of reliable data.

Level 1 ([1]-[2]) - One primary fieldwork data collection procedure is described but detail is limited, particularly at the lower mark boundary. There may be limited, or no, attempt made to reflect on the usefulness of the method for the collection of reliable data. Maximum [1] for description of sampling if it is linked to a fieldwork technique.
(c) Answers will vary according to the fieldwork investigation but marks are awarded for the quality of the discussion. For a number of the factors, their description of purpose may relate to any stage of the investigation process, e.g. planning, data collection or fieldwork follow-up.

Award ([3]-[4]) if the candidate selects a factor and describes in detail its precise purpose and usefulness within the investigation.

Award ([1]-[2]) for a less detailed, less precise answer related to both the purpose and usefulness of the selected option. Alternatively one, or other, of the components of the question may be neglected.
(d) (i) Mark breakdown is as follows:
$\left.\begin{array}{ll}\text { Title [1] } & \text { - must be specific and accurate } \\ \text { Conventions [2] } \\ & \begin{array}{l}\text { for labelling of axes (variables and units) } \\ \text { - inclusion of key (if appropriate) } \\ \text { - for correct identification of dependent and } \\ \text { independent variables }\end{array} \\ \text { - for scaling of graph to encompass all values }\end{array}\right\}$ (e.g. a line graph will require a continuous variable)

$$
\begin{aligned}
& \mathrm{T}=[1] \\
& \mathrm{C}=[2] \\
& \mathrm{A}=[3] \\
& \mathrm{M}=[1]
\end{aligned}
$$

(ii) - Award [3] for thorough graph analysis in relation to the aim of the study. The overall trend, or potential anomalous values will be identified and accurate values will be quoted to support descriptive statements.

- Award [2] or [1] for a less thorough analysis. At the lower mark boundary there may be no reference made to the fieldwork aim and no values may be quoted.
(iii) • Level 3 ([5]-[6])

Candidate provides thorough and detailed geographical reasoning in relation to the graph. Theoretical concepts or models are employed with relevance, to aid geographical explanation.

- Level 2 ([3]-[4])

Geographical reasoning is presented but is limited in detail and a reasonable attempt is made to integrate theoretical concepts.

- Level 1 ([1]-[2])

Explanation presented is simplistic and some inaccuracy may be evident at this level. There may be no attempt made to introduce geographical theory at the lower band level.

## Section B

2 (a) (i) Award [3]-[4] marks for a well drawn, annotated sketch which shows the main features of a waterfall. Annotation might include: hard/ resistant/cap rock, soft/less resistant/underlying rock, plunge pool, boulders of eroded rock etc. For [4] there must be relevant erosion processes e.g. undercutting, collapse etc.

Award [1]-[2] marks for a less accurate sketch or where annotation is incomplete or inaccurate.
(ii) As the process of undercutting and collapse is repeated, the waterfall retreats upstream (leaving a deep, steep-sided gorge).
(b) Since the streams are of similar size and are described as "neighbouring", we can assume that each drainage basin receives approximately the same volume of precipitation. The differing responses are therefore due to the different land use in each basin. The stream in basin B, which is $40 \%$ urbanised, responds much more rapidly to the storm event (after 12 hours), than the stream in Basin A, which is farmland (after 28/30 hours). The urbanised area (B), due to the increased impermeable surfaces, transfers water to the stream more rapidly whereas the farmland $(A)$ is able to absorb the early rainfall into the soil (soil moisture storage) or hold much of the rainfall on the leaves of the trees (interception storage). The peak discharges in the urbanised basin, (B) are also much higher ( 3 cumecs) than in the agricultural basin, (A) (2 cumecs).

Description only, maximum low Level 2.
Some candidates may suggest other reasons such as slope or basin geology for the differences.

## Level 3 ([5]-[6])

The candidate uses information from the Resource to provide a thorough and detailed description and explanation of the different effects of the storm event on each basin, using appropriate terminology.

## Level 2 ([3]-[4])

The candidate provides a general but accurate description and explanation of the effects of the storm event on both streams. Use of the Resource may be less effective.

## Level 1 ([1]-[2])

The candidate provides a limited response to the effects of the storm event. Limited use of appropriate terminology and Resource information.

3 (a) In all ecosystems plants and animals require nutrients such as calcium, phosphorus and nitrogen. These nutrients or chemical elements are circulated within the ecosystem. The stores of nutrients are the biomass, litter and soil. The flows or transfers in the system are the uptake, fallout and decay pathways.
Nutrients are taken up from the soil by plants [uptake pathway] and through the process of photosynthesis, are converted into new organic matter [biomass]. When plants shed their leaves or die this material falls to the ground [fallout pathway] where it is broken down by the decomposers [decomposition pathway] and returned to the soil where it is again available to be taken up by plants.

Candidates should describe how nutrients are cycled between soil, biomass and litter. It is not necessary to describe how nutrients enter or leave the system. Some candidates may include details of food chains but this is not required. A fully labelled diagram is acceptable.

Award [3] or [4] marks for a clear description of the processes involved with the use of appropriate terminology.

Award [1] or [2] marks for a more general answer or where not all processes are described. The use of appropriate terminology may be limited.
(b) The question requires candidates to describe the effects of these two soil processes on the soil profiles of mollisols/chernozems.

Leaching. This is the removal or downward movement of soluble material in solution. (In mid-latitude grasslands spring snow melt and summer storms cause some leaching, mainly of calcium, but bases such as potassium and nitrogen are moved downwards only slowly.) This leaves upper horizons deficient/lower horizons enriched by soluble materials.

Capillary action. This is the process which involves water and dissolved mineral salts being drawn upwards through the soil profile. (This occurs where rainfall is light or where evapotranspiration exceeds precipitation. In mid-latitude grasslands this happens in late summer when temperatures are high and evapotranspiration greatly exceeds precipitation.) The upward movement of moisture causes nodules of calcium carbonate to be deposited in the upper C horizon/lower A horizon.

For each process award [1] mark for an understanding of the process and
[1] mark for the effect on the soil profile. [2] + [2]
(c) As rainfall decreases the height of the grass also decreases.
(d) In mid-latitude grassland areas the vegetation is very closely related to climate. Although trees may be found in wetter areas, such as along water courses, they cannot survive the frequent drought conditions. The grasses also form a tightly knit root mass which may have restricted tree growth. Some candidates may mention the alteration of the ecosystem by fire and human exploitation. The very cold winters and snow cover also suits grasses which die down to form a turf mat in which seeds lie dormant until the snow melt, rains and warmer temperatures of the following spring.

Award [3] marks for a detailed and through answer which clearly explains why grasses are the dominant plant species.

Award [2] marks for a more general but accurate answer.
Award [1] mark for a limited answer or where the explanation is unclear.

4 (a) For precipitation to occur moist air must be cooled below its dew point temperature i.e. the temperature at which its relative humidity is $100 \%$. Saturation is reached and condensation takes place. There are three main types of rainfall.
Cyclonic - where warm air is uplifted and cooled within a low pressure area (depression) at a front. The uplift causes cooling and condensation takes place.
Orographic - where a moist airmass is forced to rise over mountains. The uplift causes cooling and condensation.
Conventional - where a body of air above a warm land surface is heated, expands and rises. The uplift causes cooling and condensation takes place.

Candidates should clearly explain the processes involved in their chosen cause of precipitation.
(b) (Incoming solar radiation is converted into heat energy when it reaches the earth's surface.) As the Resource shows the tropical areas receive the greatest amount of solar radiation (mainly due to the angle of the sun's rays), up to $280 \mathrm{Wm}^{-2}$ over the eastern Sahara and Arabian peninsula. Due to the albedo effect, land surfaces absorb more of the sun's energy than ocean surfaces and this can be seen on the Resource. The highest values for S. America and southern Africa are 240 and $260 \mathrm{Wm}^{-2}$ while the Atlantic at similar latitudes has a value of only $200 \mathrm{Wm}^{-2}$.
Heat is transferred from tropical areas by horizontal transfers (winds and ocean currents) and vertical heat transfers (radiation, conduction and convection).

Award up to [4] marks for a clear and accurate description of the pattern shown on the Resource and up to [2] marks for a clear explanation of how their chosen heat transfer method operates.
(c) The question requires candidates to name a protective measure and evaluate its effectiveness. The term "protective" should be interpreted widely to include such things as, improving warning systems and organisational systems for evacuation, improving communications infrastructure to enable more rapid evacuation, the use of planning controls to prevent building in vulnerable areas, the promotion of education on "hurricane drills" in affected regions, investment in protective structures such as flood barriers, dykes, etc.
For their chosen measure candidates should be awarded up to [2] marks for their description of the measure and [1] mark for their evaluation of its effectiveness.

## Section C

5 The details of the answer will depend on the case study chosen. The candidate should examine both the beneficial and detrimental effects of flooding in a large scale drainage basin or its delta. The beneficial effects could include the deposition of alluvium which adds nutrients to the soils of the floodplain which improves crop yields, increase in fish breeding habitats, better transport along flooded rivers etc. Detrimental effects could include damage to property/ infrastructure, deaths, outbreaks of waterborne diseases, loss of crops. The candidate should say whether they agree or disagree with the statement in the question and give reasons for their choice.

## Level 3 ([9]-[12])

The candidate provides a balanced answer which focuses on both beneficial and detrimental effects of flooding. There is good reference to case study material. The best candidates will come to a reasoned conclusion about the statement.

## Level 2 ([5]-[8])

A less detailed answer which includes beneficial and detrimental effects or an unbalanced answer which focuses on one outcome more than the other.

## Level 1 ([1]-[4])

An answer which fails to address the question or where case study material is limited. There may be no evaluation of the statement and the quality of communication may also be poor.

6 The details of the answer will depend on the case study chosen. It should be a small scale ecosystem, which might be a lake or a forest or a dune system or a peatland area. The physical characteristics should include climate, soils, rainfall, growing season etc. In order to show how energy moves through the system candidates should explain how energy enters the system through named autotrophs and show how it is transferred through a series of trophic levels in the ecosystem. There should be good reference to flora/fauna throughout.

## Level 3 ([9]-[12])

The candidate produces a balanced answer, which clearly outlines the physical characteristics of their named ecosystem. They should name specific flora/fauna at each trophic level of the ecosystem and discuss how energy moves through the ecosystem.

## Level 2 ([5]-[8])

The named ecosystem is appropriate but the answer is limited in depth or detail or no specific ecosystem is named or the answer is unbalanced either failing to provide sufficient details of the physical characteristics of the ecosystem or failing to clearly explain how energy moves through the system.

## Level 1 ([1]-[4])

The candidate shows little understanding of the physical components of the ecosystem and has limited knowledge of how energy moves through the system. The quality of communication may also be poor.

7 While the question does not require candidates to explain how depressions form it does ask them to describe their structure once formed. An annotated diagram is also required. The diagram will most likely be a cross-section showing the positions of the two fronts and labels, including the air masses present, clouds and weather experienced throughout the depression. The weather produced by depressions should include references to wind speed, precipitation etc. with some explanation of where and why the weather occurs.
Impacts on people will most likely concentrate on the negative effects produced by strong/deep depressions. These might include strong winds which can cause damage, especially in urban areas, loss of electricity supplies, disruption of communications and pressure on rescue agencies due to fallen trees etc. There could also be crop damage and coastal flooding. Good candidates might mention positive factors such as the filling of reservoirs and groundwater stores. A detailed answer with relevant description and explanation, but lacking a diagram can achieve Level 2.

## Level 3 ([9]-[12])

The candidate produces a clearly annotated cross-section or plan diagram and a detailed answer which, using appropriate terminology, clearly describes the structure of a depression and explains the weather it produces and its impact on people.

## Level 2 ([5]-[8])

The candidate produces a less detailed answer, where the diagram is less well annotated and the explanation of the weather characteristics and impact on people is not fully developed.

## Level 1 ([1]-[4])

An answer which fails to include an annotated diagram and/or where the structure of the depression, and its impact on people are poorly described. The quality of communication may also be poor.

| $[12]$ | 12 |
| :---: | :---: |
| Section C | $\mathbf{2 4}$ |
| Total | $\mathbf{9 0}$ |
|  |  |

## ADVANCED SUBSIDIARY (AS)

General Certificate of Education January 2009

## Geography

## Assessment Unit AS 2 <br> assessing <br> Human Geography

[AG121]

FRIDAY 23 JANUARY, AFTERNOON

## MARK <br> SCHEME

## MARK SCHEMES

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## Section A

1 (a) (i) • 3

- 22
- 27
$3 \times[1]$
(ii) Breakdown

Rn calculation
Distribution
Comment in relation to hypothesis
Rn Calculation
$\mathrm{Rn}=2 \overline{\mathrm{~d}} \sqrt{\frac{\mathrm{n}}{\mathrm{A}}} \quad \overline{\mathrm{d}}=\frac{9.88}{39}=0.253$
$\mathrm{Rn}=2(0.25) \sqrt{\frac{39}{24.68}}$
$\mathrm{Rn}=0.507 \times \sqrt{1.58}$
$\mathrm{Rn}=0.507 \times 1.26$
$\mathrm{Rn}=0.64$ or 0.63
When Rn value is incorrectly calculated, check the calculations to award method marks as follows:

- Calculation of $\overline{\mathrm{d}}=0.253$
- Calculation of 0.507
- Calculation of 1.26


## Distribution

Significantly clustered

## Hypothesis

This statistical outcome renders the hypothesis invalid.
The hypothesis can be rejected. [1]
(iii) The delineation of the boundary area strongly controls the Rn value calculated.

- A larger area would have exaggerated clustering as the Rn value would be lowered.
- A smaller area would have increased the Rn value and increased the possibility of a regular distribution pattern.
Award [2] for an answer which shows a good understanding of how the alteration of this map area would have influenced the statistical outcome.
Award [1] for a less well developed answer with some evidence of understanding.
(b) Credit any valid descriptive labels relating to both the river and the relief of this environment. Max [3] if all labels relate to river (or to relief).
River - meandering/sinuous river, braided channel, sand bars, deposited sediment arcuate/cuspate delta, dendritic drainage pattern, distributaries, river mouth, etc.
Relief - low altitude land (in foreground), gentle gradient, flat land, flood plain, higher altitude land (in background).
Accept the use of alternative terminology, if accurate in relation to the image.

$$
[1] \times 4
$$

(c) (i)

| Mali | \% Industry | \% Services |
| :---: | :---: | :---: |
|  | 17 | 38 |
|  | Accept $(16-18)$ | Accept $(37-39)$ |


| France | \% Agriculture | \% Industry |
| :---: | :---: | :---: |
|  | 2 | 21 |
|  | Accept (1-3) | Accept (20-22) |

$4 \times[1]$
[4]
(ii) Graphical representation required of data for Chad.

Plotting [3]
Max [2] if no label
(iii) Recognition of defined zones of clustering for MEDCs/LEDCs [2] Accurate graph reference/quotation [1]
(d) There are two component parts to this question and breakdown of marks is as follows:
Definition [2]
Award [2] for an accurate and well expressed definition. Stratified sampling requires the proportional representation of subsets in relation to the total population.
Award [1] for a less well expressed definition with some understanding evident.

## Application of Method [3]

Award [3] for an accurate and detailed understanding with good resource use. At least two accurate calculations are expected (see table below).
Award [2] for an accurate, less detailed answer with at least one accurate calculation a requirement.
Award [1] for candidates who refer to the resource generally with recognition that subsets require inclusion. No accurate calculations will be included.

Calculations

| Ethnic Group | Sample Required |
| :--- | :---: |
| Mestizo | 490 |
| Creole | 250 |
| Maya | 110 |
| Garifuna | 60 |
| Other | 90 |

## Section B

2 (a) The number of young dependents ( $0-15$ years) has decreased from 37.1\% to $27.9 \%$. However, the number of elderly dependents has increased from $29.7 \%$ to $43.6 \%$ [2]. Max [1] out of [2] if figures are not quoted.
The economic effect of having more elderly people include - providing pensions for more people, providing health care for the elderly e.g. old people homes, stagnation in the housing market etc. The economic effect of a reduced number of young people include - less people moving into the economically active sector so less people paying tax, even though there will be more needing pensions [4]. Candidates who only describe the impact of one trend will be limited to [2].
(b) Vital registration is the ongoing collection of births, deaths and marriages. National Census is the collection of population data every ten years. It involves the completion of a questionnaire by each household [2]. There are problems collecting population data in both MEDCs and LEDCs, but they are greater in LEDCs. LEDC problems include - insufficient funding for training, language difficulties, religious and gender divides etc. MEDC problems include - insufficient mapping to cover all houses, misreporting age etc.

## Level 3 ([5]-[6])

The candidate clearly distinguishes between vital registration and the National Census. They are able to offer valid problems of collecting such data from both MEDCs and LEDCs.

## Level 2 ([3]-[4])

A less full answer. The problems may be vague or offer only MEDC or LEDC problems. No attempt has been made to distinguish between the vital registration and the National Census.

## Level 1 ([1]-[2])

A poor answer that has inaccuracies and limited depth of knowledge.

3 (a) There is a clear pattern in social deprivation in Birmingham. The areas experiencing higher rates of deprivation are all in the city centre. As you move further from the centre, the levels of deprivation decrease [2]. For full marks the candidates need to quote place names from the resource.
(b) Candidates need to firstly describe the pattern of deprivation in their case study. This should be done by looking at both economic and social factors and also through figures. There should be specific case study information figures and place names [3]. Secondly, candidates need to explain the pattern they have outlined. Again, this should be specific to their chosen case study and not vague [4].
(c) Counter urbanisation is the movement of people from towns and cities to the countryside [1]. There are many effects on the rural area that they may offer. Examples include - increased house prices, overcrowding in schools, locals forced out etc [2].

4 (a) Africa has the lowest levels of human development index. South East Asia has medium levels. These areas are likely to suffer low levels of development and poverty. North America and Europe show higher scores on human development and will have higher levels of development [2].
(b) Any other composite measure of development is acceptable, e.g. PQLI. They must describe their composite measure [2] and evaluate it [2]. For candidates who discuss a non-composite measure, award [0].
(c) Candidates are expected to acknowledge that aid can have both a positive and a negative effect. They do not have to offer balanced answers, but they should both be included. Those who do not include both should be limited to level 2.

## Level 3 ([5]-[6])

A good, detailed answer. The candidate fully understands that aid can bring both positive and negative effects and has discussed these with good geographical terminology.

## Level 2 ([3]-[4])

A less detailed answer. Some candidates may only discuss either the positive or negative effect.

## Level 1 ([1]-[2])

A poor answer that does not fully address or understand the question of aid. Geographical terminology will be very poor.

## Section C

5 Candidates need to answer the question using a national case study. This can be either a LEDC or MEDC. They must have a clear case study with details and depth of knowledge. There should be identifiable periods of time and a clear understanding of how the structure in each period changed. Candidates who focus on changes over space or distribution will only achieve Level 1.

## Level 3 ([9]-[12])

Candidate has an appropriate case study with details and depth of knowledge. They can describe, using place and figures, how the population structure of their case study has changed over time. They offer valid reasons for the changes outlined and there are clear identifiable periods of time.

## Level 2 ([5]-[8])

Still a good answer, but the depth of detail may be less. Dates and figures may be limited with some inaccuracies, or there may be little reference to structure.

Level 1 ([1]-[4])
A poor answer. There is limited understanding of the question set and quality of language is poor.

6 The specification highlights population change and service provision as the main issues faced in remote rural environments, so candidates will focus on these. Remote rural areas are affected by out migration especially by the young and economically active age groups. This leaves behind an elderly population structure. With falling population numbers and an increasing ageing population some services are no longer viable, e.g. primary schools close, post offices close, public transport services are reduced or withdrawn in some cases. Consequently the area becomes even more isolated which leads to even more out migration and the area goes into a downward spiral of neglect. Candidates have to identify and describe at least two issues and they must discuss them with reference to place for illustration.

## Level 3 ([9]-[12])

A detailed answer that has given at least two full issues faced in remote rural environments and has connected these to place for illustration. Quality of language is good.

## Level 2 ([5]-[8])

Still a good answer, but the depth of knowledge is less and the place for illustration may be missing.

## Level 1 ([1]-[4])

A poor answer that shows little understanding of the issues faced in remote rural environments.

7 Any relevant national case study is acceptable. Candidates will need to describe and explain the regional contrasts in development that exist in their national case study. As ever, the requirements of a case study must be met - i.e. detail about a real place. The regional variations have to be explained again with specific detail on places.

## Level 3 ([9]-[12])

Candidate provides a thorough and detailed description of the regional variations in development with specific figures and places mentioned. These differences are explained thoroughly, showing sound understanding.

## Level 2 ([5]-[8])

Candidate provides a general but accurate answer, but there is less factual detail and depth throughout or one aspect is only dealt with in a superficial manner. The answer may be limited to a description of regional variations in their chosen case study.

## Level 1 ([1]-[4])

Candidate provides a limited answer which is lacking in detail and depth on all aspects, or there may be incorrect information. Reference to case study material may be limited, inaccurate or omitted altogether.

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