Published Mark Schemes for GCE AS Geography

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AND NORTHERN IRELAND GENERAL CERTIFICATE OF EDUCATION (GCE)

MARK SCHEMES (2010)

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.

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MARK SCHEME

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.

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 is difficult to read. Makers 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 Understanding	Skills	Quality of Written Communication	Level
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.	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.	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, punctuation and grammar.	3
The candidate will display an accurate to good knowledge and understanding of many of the relevant concepts/ ideas. Much of the body of knowledge that can be expected is given.	The candidate will display evidence of the ability to analyse and interpret the resource material but gaps, errors or misapprehensions may be in evidence.	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, punctuation and grammar. Legibility is satisfactory.	2
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.	The candidate will be able to show only limited ability to analyse and interpret the resource material and gaps, errors or misapprehensions may be clearly evidenced.	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, punctuation and grammar. Writing may be illegible in places.	1

Section A

1 (a) Candidates are expected to reflect on two advantages of their chosen site/area for the investigation of their fieldwork aim. The appropriateness of two physical/human geographical site factors requires explanation.

Level 2 ([3]–[4])
Two site advantages are explained and consistently referenced to the aim of the fieldwork. Explanation is coherent and detailed at the top level.

Level 1 ([1]–[2])
Two site advantages are outlined with limited explanation and less linkage to the fieldwork aim. Alternatively one advantage is explained coherently with meaningful reference to the fieldwork aim. [4]

(b) (i) Statistical analysis can aid data analysis and interpretation as voluminous raw values can be simplified and summarised into a concise mathematical form. Statistical analysis can provide an objective measure of significance so that the reliability of the proposed conclusion can be ascertained.

Award [3] for a coherent answer which displays a sound understanding of the role of statistical analysis within the investigation process.

Award [1] or [2] for a less detailed answer with more general simplistic understanding evident. [3]

(ii) The statistical analysis performed will depend on the chosen technique, but it must be relevant to the aim/hypothesis of the investigation. Therefore cross-referencing is essential with the report submitted.

Measures of Central Tendency/Range
Calculation of mean [2]
Calculation of median [2]
Identification of mode [1]
Calculation of range [2]

Spearman's Rank Correlation or Nearest Neighbour Analysis
- Accuracy of calculation [5]
  (Maximum of [3] if error in ranks results in incorrect rs)
  (Maximum [3] if Spearman's Rank is performed with less than 7 ranked pairs)
- Statistical interpretation [2]

N.B. Maximum [4] marks if selected statistical technique is inappropriate to the aim/hypotheses stated in the report.

[7]

(iii) Explanation is required to support the statistical outcome. An opportunity is provided for the exploration and integration of relevant geographical theories/concepts or models to aid explanation.

Level 3 ([7]–[8])
Answer displays sound geographical understanding with effective integration of relevant theoretical concepts. Reasoning is detailed, coherent and well written with specialist terminology employed.

Level 2 ([4]–[6])
Answer is less detailed with more limited reference to theoretical concepts and only occasional use of geographical terminology.

Level 1 ([1]–[3])
Explanation is simplistic and displays a very basic geographical understanding of the statistical outcome. Little or no reference may be made to geographical concepts and specialist terminology is generally neglected. [8]

(c) Answers will vary according to the nature of the fieldwork and the factor selected. The answer requires an element of evaluation in relation to the reliability of their primary data collection. The explanation may relate to the positive or negative influence of the chosen factor.

Award ([3]–[4]) for a coherent evaluative answer with meaningful reference to fieldwork and the reliability of the data collected.

Award ([1]–[2]) for a more simplistic answer, with only a limited evaluation. Reference to primary or secondary data collection is less convincing. [4]

(d) Candidates are provided with the opportunity to consider the further exploration of their devised aim through a proposed extension to their fieldwork.

Award ([3]–[4]) if a valid/realistic extension is proposed with meaningful explanation linked to the proposed fieldwork aim.

Award ([1]–[2]) for answers in which a less precise extension is proposed with little/no linkage to the original fieldwork aim. Explanation of the suggested extension may be less meaningful and relevant at this level. [4] 30

Section A **30**

Section B

2 **(a)** Saltation is one of the processes by which the bedload of a river is transported. Saltation occurs when pebbles, sand and gravel are temporarily picked up by the current and bounced along the river bed in a hopping motion. [2]

(b) **(i)** The question requires candidates to **both** describe and explain the trends shown on Resource 2. They should do this for the data on both damage and deaths [some candidates may combine their answers for deaths/data]. The scale for damage is logarithmic.
The shapes of the graphs' angular troughs and peaks, can be explained as flooding does not happen on the same scale each year. There are years when, due to extreme weather conditions, flooding is severe and other times when flooding is much less severe. There is clearly a link between the shapes of the two graphs i.e. when there are severe flood events there is usually a corresponding increase in both damage and deaths.

Average deaths have increased only slightly over the 65 years shown in the Resource (75 to 135), although the population of the USA would have increased greatly over this time and a greater proportion of the population would be living on flood plains. This is due to the various flood-warning and flood-prevention measures developed over time. Good candidates may give figures for particular years (1971–540). There has been a great increase in the cost of the damage due to flooding (from under 10 000 million dollars to over 300 000 million). This is mainly due to the increased value of the infrastructure, between 1925 and 1990, that flooding has destroyed. Again good candidates may give figures for particular years (1971–7000 million dollars).

Level 3 ([5]–[6])
The candidate provides a thorough and detailed description and explanation of the data on the Resource for both deaths and damage caused by flooding. Figures are quoted from the Resource.

Level 2 ([3]–[4])
The candidate provides a general but accurate description and explanation of the data or the answer is unbalanced commenting more on one aspect of the Resource. Excellent description of more than one trend, with figures quoted, can achieve [4] marks.

Level 1 ([1]–[2])
The candidate provides a limited description with little or no explanation of the data or the explanation may be superficial or inaccurate. [6]

(ii) The candidate is asked to explain two ways the data would be different in a LEDC. Both may concern deaths or both may concern damage or one of each.
A wide range of answers would be valid.
Deaths would be greater because:

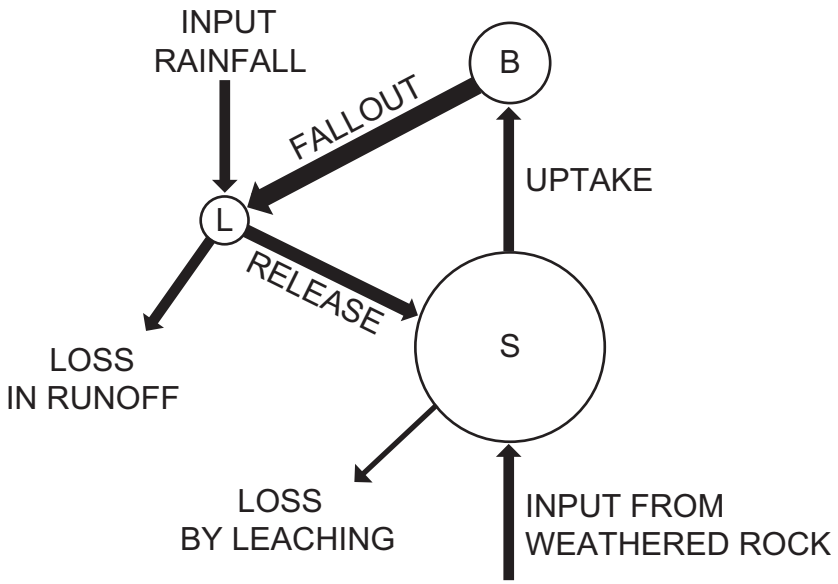
- outbreaks of waterborne diseases are likely
- medicines would be in short supply
- rescue agencies may not be present or well prepared
- food reserves might be lacking

Costs of damage might be less because:

- there is less expensive infrastructure
- people have few valuable possessions

Candidates should be awarded up to [2] marks for each valid explanation. [2] + [2] [4] 12

3 (a) (i) There are four missing transfers in Resource 3. Candidates should gain a mark for each transfer which is correctly labelled. [4]



(ii) Credit "decay" or "decomposition" for RELEASE.
In mid-latitude grasslands the climate lacks sufficient moisture to support trees. The grass dies back in winter and nutrients are returned rapidly to the soil. The soil retains most of these nutrients because the rainfall is insufficient for effective leaching to take place. The climate also causes chemical and physical weathering which releases further nutrients from the parent rock. The presence of bacteria also speeds up the return of nutrients from the litter to the soil.
Award up to [3] marks for valid reasons why the soil store is the largest. Reasons must focus on processes in the natural ecosystem, not monoculture.

[3]

(b) Candidates are required to describe and explain the changes in soil characteristics which occur during plant succession. The details of their answers may be influenced by the case study they have learned but the question only requires general information.

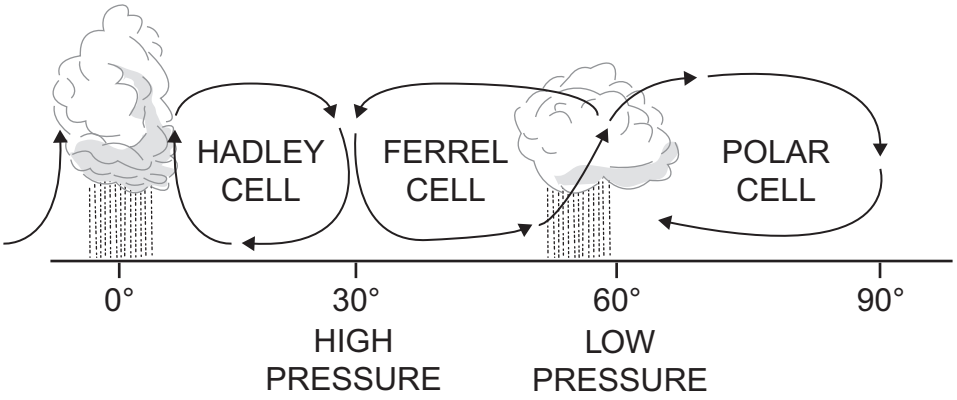
- soil depth will increase, due to continued weathering of the parent rock and addition of organic material from decomposing vegetation
- humus content will increase, as the vegetation cover increases and decayed material is added to the soil
- soil moisture will increase, as the humus content increases and this will store moisture
- soil stability will increase as the plant cover increases and plant roots bind the soil together

Award [5] for a detailed and thorough answer which describes a range of ways in which the characteristics change during the process of plant succession.

Award [3]–[4] for a more general but accurate answer or where a limited number of characteristics are given or where explanations are not fully developed.

Award [1]–[2] for a limited answer which provides few examples or where explanations are unclear or missing. [5] 12

4 Candidates should be awarded [1] mark for naming each circulation cell correctly and a further mark for labelling **both** pressure values correctly [1].



[4]

(b) (i) Candidates should describe and explain the main sequence of weather in terms of temperature, cloud/precipitation and wind speed/direction. Good candidates might also mention pressure, relative humidity, cloud types or visibility. The table below shows the weather associated with the passage of a typical depression. Candidates do not need to include all the features to obtain full marks.

	After the cold front	**Cold front passes**	**Warm sector**	**Warm front passes**	**Approach**
Pressure	rises slowly	sharp rise	steady	fall ceases	steady fall
Wind speed and direction	NW slow decrease	SW to NW strong	SW decreasing	SSE/SW strong	SSE slow increase
Temperature	cold 3 °C	sharp decrease	warm/mild 10 °C	sharp rise	cool 6 °C
Cloud cover	decreasing	thick and towering	low or clear	low and thick	high and thin
Precipitation	heavy showers	heavy rain	drizzle or none	continuous quite heavy	none

Level 3 ([5]–[6])
The candidate provides a thorough and detailed description and explanation of the sequence of weather that Ireland has experienced during the previous 24 hours.

Level 2 ([3]–[4])
The candidate provides a valid but less detailed description **and explanation** of the sequence of weather. The range of weather elements described may also be limited or there may be an imbalance between description and explanation. A thorough description of two variables with values quoted in relation to the weather sequence can achieve top L2.

Level 1 ([1]–[2])
The candidate provides a limited or less accurate description and explanation may be missing. Knowledge and understanding may be lacking. [6]

(ii) A wide range of answers is possible and candidates are only asked to state, not explain their examples.
Benefits might include the filling of reservoirs and groundwater stores and the benefits of rainfall to crop growth.
Detrimental effects might include the effects of strong winds causing damage to buildings or crops, loss of electricity supplies, disruption to communications due to fallen trees or flooding, etc.

Candidates should be awarded [1] mark for each valid answer.
[1] + [1] [2] 12

Section B **36**

Section C

5 For each of the features candidates should be awarded up to [6] marks. Full credit should be given to well annotated diagrams which incorporate explanation. The answers should also include clear references to the relevant river processes.

Waterfalls occur where the long profile of the river is steep and where there is an outcrop of more resistant rock, often called the cap rock, overlying a soft, less resistant rock. Erosion is concentrated in the plunge pool, at the base of the waterfall where abrasion, attrition, hydraulic action and (depending on rock type) solution take place. As the less resistant rock erodes more easily, the overlying harder rock will be undercut and periodically collapses. Repetition of this process, and the removal of the eroded material from the plunge pool will cause the waterfall to retreat upstream leaving a steep sided gorge.

Deltas are formed from fine sediment which is deposited as a river loses energy and competence as it flows into an area of slow moving water. Where a river flows into the sea, the process of flocculation takes place when clay particles coagulate, so become heavier and sink to the sea-bed. Deposits are laid on the seabed in a three-fold sequence. The finest deposits are carried furthest and form the bottomset beds. These will be covered by the slightly coarser material which form the sloping foreset beds. The upper layers, nearer the land and composed of still coarser material form the horizontal topset beds.
Arcuate deltas such as the Nile delta have a rounded convex outer margin. Bird's foot deltas extend out to sea in the shape of the claws of a bird's foot.

Level 3 ([5]–[6])
The candidate produces a well annotated diagram and with the use of appropriate geographical terminology, clearly describes and explains the river processes involved in the formation of the feature.

Level 2 ([3]–[4])
The candidate produces a less well annotated or poorly drawn diagram or their description and explanation is generalised or lacking in geographical terminology. An excellent description and explanation without a diagram can attain L2.

Level 1 ([1]–[2])
The candidate fails to produce a diagram or their description and explanation is limited or inaccurate. The quality of communication may also be poor.
[6] + [6] [12] 12

6 Candidates are required to use a mid-latitude grassland case study to explain the impact of monoculture and describe the attempts to manage the grassland ecosystem.

Monoculture is the practice of growing the same crop in the same field year after year. In the case of the mid-latitude grasslands the crops are cereals. Monoculture removes the same nutrients from the soil year after year so that fertility gradually decreases and crop yields are gradually reduced. Monoculture also causes the deterioration of soil structure. The crumb structure of the soil, with well-formed peds, breaks down and the soil becomes very powdery. This leaves the soil more prone to erosion by both wind and water.

Poor management of these areas would include monoculture and overgrazing. Good management techniques might include returning areas to their natural state by establishing wildlife parks/protected areas or introducing farming practices, which improve soil structure or moisture content and increase soil nutrients. These might include crop rotation, planting of shelter belts, wheat stubble, mulching, terracing or contour ploughing. Candidates should explain how the management techniques work and there should be clear reference to case study material. If case study is inappropriate, award Level ÷ 2.

Level 3 ([9]–[12])
The candidate uses relevant case study material and appropriate geographical terminology, to clearly explain the impact of monoculture on an area of mid-latitude grasslands. They also explain how a range of management techniques have been used in an attempt to manage this ecosystem.

Level 2 ([5]–[8])
The candidate produces a less detailed answer, where reference to case study material is less effective or where depth of knowledge is limited. Management techniques may be limited or less well explained.

Level 1 ([1]–[4])
The candidate produces an answer which is generalised or inaccurate with little case study material. The quality of communication may also be poor. [12] 12

7 Candidates are required to name a specific hurricane event, describe its effects on people and property and evaluate the effectiveness of the protective measures used to reduce loss of life and damage to property. Candidates must name a specific hurricane event to be awarded Level 3 marks. Effects could be primary or secondary. They might include deaths, famine, disease, evacuation measures, loss of contact with family, looting, crime, etc. Effects on property could include damage to homes and infrastructure such as schools, hospitals, communications etc. Protective measures might include better forecasting and research into the atmospheric processes within a hurricane, coastal protection measures, large scale evacuation of the population etc. Suitable examples could also include the use of monitoring and warning systems such as those employed by the National Hurricane Centre in Florida, and the use of information from geostationary satellites and from land and sea-based recording sites, weather aircraft and computer models of hurricanes. The strengthening of homes and commercial buildings might also be mentioned. There must be some evaluation of these measures for Level 3.

Level 3 ([9]–[12])
The candidate provides a detailed answer which names a specific hurricane event and which makes good use of relevant case study material to describe its effects on people and property and **evaluate** the effectiveness of the protective measures used to reduce loss of life and damage to property.

Level 2 ([5]–[8])
The candidate provides a less detailed answer. Reference to case study material may be less effective and depth of knowledge may be limited. Protective measures may be few or not evaluated.

Level 1 ([1]–[4])
The candidate fails to mention a specific hurricane event or produces an answer which is generalised or inaccurate or includes little case study material or with few protective measures. The quality of communication may also be poor. [12] | 12

Section C | **24**

Total | **90**

Rewarding Learning

ADVANCED SUBSIDIARY (AS)
General Certificate of Education
January 2010

Geography

Assessment Unit AS 2

assessing

Module 2: Themes in Human Geography

[AG121]

FRIDAY 22 JANUARY, AFTERNOON

MARK SCHEME

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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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.

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Some candidates may present answers in writing that are 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 in 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 Understanding	Skills	Quality of Written Communication	Level
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.	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.	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, punctuation and grammar.	3
The candidate will display an accurate to good knowledge and understanding of many of the relevant concepts/ ideas. Much of the body of knowledge that can be expected is given.	The candidate will display evidence of the ability to analyse and interpret the resource material but gaps, errors or misapprehensions may be in evidence.	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, punctuation and grammar. Legibility is satisfactory.	2
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.	The candidate will be able to show only limited ability to analyse and interpret the resource material and gaps, errors or misapprehensions may be clearly evidenced.	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, punctuation and grammar. Writing may be illegible in places.	1

Section A

1 (a) (i) Award 4 × [1] for each accurately measured arrow **width**.

Air Mass	Arrow Width
Polar Maritime	32 mm
Tropical Maritime	9 mm
Tropical Continental	1 mm
Arctic	11 mm

Award [1] if **all** directions are accurate.
Award [1] for annotation to indicate all air mass types. [6]

(ii) credit 2 × [1] for accurate quantifiable/measurable variables.
Answers may include:
- Temperature
- Humidity/Relative Humidity
- Moisture Content
- Air Pressure

Etc. [2]

(b) (i) Breakdown as follows:
Calculation [3]

$$rs = 1 - \left(\frac{6 \times (80.5)}{1000 - 10}\right)$$

$$rs = 1 - \frac{483}{990}$$

$$rs = 1 - 0.488$$

$$rs = 0.512 \text{ (accept } 0.5 - 0.52)$$

Method marks:
Award [1] for correct substitution into the formula.
Award [1] for calculation of 0.488 (may be rounded to 0.48, 0.49 or 0.5).
Award [1] for final answer.

Interpretation [3]
- Award [1] for a general recognition of insignificance.
- + [1] if developed in relation to accurate quotation of critical value at 95% level.
- + [1] for accurate reference to hypothesis – Environmental quality **does not** increase significantly with distance from the edge of the CBD. [6]

(ii) To scientifically test the hypothesis stated, environmental quality data was obviously required along the length of the devised transect routes. Systematic sampling was considered appropriate as it allows for manageable data collection along a progressive continuum. Random sampling, however, could not ensure this, as bunching or clustering would have been a probable occurrence and thus the hypothesis could not have been tested.

Award [3]–[4] for an answer which displays a sound understanding of the appropriateness of the systematic method, while recognising the limitations of random sampling for this particular residential study.

Award [1]–[2] for an answer which displays simplistic understanding of both sampling methods. For the lower mark the candidate may only consider one of the two sampling methods outlined. [4]

(iii) There are many valid limitations which can be credited. Candidates must make explicit reference to the bi-polar index or its descriptors and explain how data reliability may have been compromised.

Possible examples

- Ugly/Attractive environment – this descriptor is highly subjective. As the images display a variety of different types of residential environment, the data is thus open to personal impressions or perceptions which can influence the value recorded.
- Noisy/Peaceful – values recorded will obviously depend on the time of day or even the day of the week as these variables will influence factors such as pedestrian flow, traffic flow, etc. Therefore it would be impossible to ensure that data collected for all sites is comparable.
- Value of Housing – values recorded are again open to subjectivity and are thus unreliable unless actual secondary sources are obtained from estate agents. In many of the suburban sites, houses are less similar and therefore property values may exhibit a large variation within a street. The value of any property is dependent on many influential factors such as their structural state, aesthetic appeal, etc. Therefore a subjective visual observation of the property value from the exterior appearance of buildings may yield unreliable data.

Award [3] for an answer which demonstrates a sound awareness of an explicitly stated weakness/limitation, which may have influenced the reliability of the data obtained.
Award [1] or [2] for a more basic awareness of how unreliable data may have been obtained. There may be little or no reference made to the bi-polar index descriptors. Explanation may lack depth and suggestions may be less plausible. 2 × [3] [6]

(c) **(i)** This is the middle value in the data set [1] when values are arranged in rank/numerical order [1] [2]

(ii) The median age of the population is projected to increase as a result of the change in the predicted age structure of the population. Candidates should make reference to:

- Fewer young people
- Increased middle/elderly sector

If there are no figures maximum [3] [4]

Section A **30**

Section B

2 **(a)** Natural change is the balance between birth rate and death rate [1]. If the birth rate is higher than the death rate then there will be a natural increase but if the death rate is higher than the birth rate there will be a natural decrease [1]. Migration balance is the effect of migration on this. It is the balance between out migration and in migration in an area [1]. [3]

(b) **(i)** It is clear that in the Northwest territories there are more economically active whereas in Newfoundland there is a more aged population. In the Northwest territories there is a very notable lack of people in the elderly age groups. People aged 73 – 76 years amount to approximately 0.8% of the population. This region, however, has 4% of the population aged 41 – 44 years. Compared to Newfoundland and Labrador where approximately 0.1% of the population are 73 – 76 years and 3% of the population are 41 – 44 years. No figures, maximum [3] [4]

(ii) In the Northwest territories the lack of elderly people could be due to out migration. This area would be very cold and harsh to live in so people retired to more pleasant climatic areas. Alternatively, the lack of young adults in Newfoundland could indicate a lack of employment opportunities and hence the young are migrating in search for employment. [2]

(c) The candidate must have a named national case study and one physical factor that has affected its population distribution – soil, relief, climate, drainage, etc. They must be able to describe how their factor has affected the population distribution, not merely state it. Candidates who have no named case study are limited to [2]. Do not award candidates who discuss a human factor. Candidates who discuss more than one factor – mark all and award the best mark. [3]

3 **(a)** The resource shows a range of pressures and opportunities that may be discussed.

Pressures include: pressures on the green belt, the green belt was designed to control the growth of London but it is constantly under pressure from the expansion of London and its dormitory settlements, there is intense conflict and competition for limited space; the improvement of the rail and road transport networks, for example the M25 around London has added a lot of traffic pressure in this fringe area; the increasing air traffic from Heathrow has added to environmental and air pollution; farming land appears to suffer from trespassing and damage, possibly gates being left open.

Opportunities include: the promotion of recreational uses in the Colne Valley regional park and the Country park; opportunities for improved transport facilities; space for out of town developments – retail and offices.

This is not a definitive list, merely a guidance of possible points that could be made. Candidates must discuss both the opportunities and pressures. Those that omit one completely will be limited to [3]. However, do not look for a balance between the two.

Level 3 ([5]–[6])
A good answer that has addressed both the opportunities and pressures and has used the resource fully, discussing a range of ideas.

Level 2 ([3]–[4])
Still a good answer but the range of ideas from the resource may be fewer or the opportunities or pressures may be completely omitted.

Level 1 ([1]–[2])
A poor answer that lacks understanding of the resource or the issues being discussed. [6]

(b) Candidates need to discuss the issues of deprivation in their chosen 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. This discussion should explain the pattern they have outlined. Again this should be specific to their chosen case study and not vague. If the case study is omitted completely, maximum [3]

Level 3 ([5]–[6])
A good answer that has fully discussed the issues involved. They have discussed the issues using specific case study information with specific place names.

Level 2 ([3]–[4])
Still a good answer, but the detail may be less. They may only discuss one issue for this level.

Level 1 ([1]–[2])
A poor answer that lacks depth of knowledge. Answers consisting of vague comments will be limited to this level. [6]

4 **(a)** **(i)** South India has the highest Human Development Index, scoring over .523. The north east of India has the lowest Human Development Index score. In the areas with a high Human Development index score there is a lower percentage of children underweight. In the areas with a low Human Development Index score there is a high percentage of children underweight. There is a negative relationship. Candidates who fail to compare the patterns and describe each should get [3] max.
No figures, maximum [4] [5]

(ii) Most students will discuss the Physical Quality of Life Index. Candidates need to do more than just outline their chosen measure. They need to evaluate and offer a brief discussion on its effectiveness. Those students who simply outline their measure will be limited to [2]. [3]

(b) Colonialism is taking political and economic control of a foreign country and establishing some form of administration in that country. Neo-colonialism is economic control of a foreign and politically independent country through monetary loans or bilateral aid. Colonialism is direct control and ruling over a country, whereas neo-colonialism will be an indirect control that occurs after independence. if only one mentioned, maximum [2] [4]

5 This question asks the candidates to look at social, economic and political implications. Do not expect all three for both MEDCs and LEDCs but they must be included somewhere in the answer. The first element to their answer will be that MEDCs have an aged dependency ratio while LEDCs have a youth dependency ratio. The implications they may discuss might include:

MEDC-economic: provision of pensions for the increased number of elderly, reduced taxes from the falling number of economically active, increased burden on the economically active, stagnation in the housing market, increased costs of caring for people who are infirm and incapable of looking after themselves, a division in the elderly over those surviving on state pensions and those surviving on private pensions.

Social: increased manufacturing of elderly products, therefore less products for younger markets, reduced number available to work in army or health service so reduced quality of service.

Political: growing debate over issues such as euthanasia.

LEDC-economic: increased funding needed for young facilities and services, such as maternity wards and primary schools. This on top of an already overstretched economy. Increased numbers of people looking for employment.

Social: increased malnutrition among the young as scarce food resources are stretched even further. A higher infant mortality rate may then occur.

Political: inability to provide for the increased number of young people may create political unrest and conflict.

Level 3 ([9]–[12])
A very good answer that clearly identifies the differing dependency ratios in LEDCs and MEDCs and offers economic, social and political implications.

Level 2 ([5]–[8])
Still a good answer but the depth of knowledge on the implications may be less and either the LEDC or MEDC may be less well addressed. Candidates who omit either economic, social or political implications will be restricted to this level.

Level 1 ([1]–[4])
Answer with inaccuracies or lacking an understanding of the question will be included in this level. [12]

6 **Choice A:** The candidates need to have named a specific regional development agency working in a remote rural area and outline how this agency has tried to deliver economic regeneration. They need to have all the depth associated with a case study producing place names and figures. Better candidates will offer some discussion on how successful this agency has been, but this is not necessary for Level 3.

Level 3 ([9]–[12])
A good answer that has named a regional development agency working in a remote rural area. They have clearly identified how this agency aimed to bring economic regeneration. They have produced case study specifics and the quality of communication is good.

Level 2 ([5]–[8])
Still a good answer but the depth of knowledge on either the workings of the regional development agency or the case study is less or candidates with no case study will be limited to this level.

Level 1 ([1]–[4])
An answer that lacks key elements of the question and depth of knowledge is very poor. Quality of communication is poor or limited. [12]

Choice B: The candidate needs to name a protected area and outline with case study specifics how this area has been managed. They need to outline how this management has catered for the needs of conservation, recreation and tourism within their protected area. Place names and, where appropriate, figures are expected for Level 3.

Level 3 ([9]–[12])
A good answer that has named a protected area. They have clearly identified how this area has been managed for conservation, recreation and tourism and have discussed all three. They have produced case study specifics and the quality of communication is good.

Level 2 ([5]–[8])
Still a good answer but the depth of knowledge may be less. Candidates who do not discuss one of the management issues (recreation, tourism or conservation) will be limited to this level. Candidates with poor case study will be limited to this level.

Level 1 ([1]–[4])
An answer that lacks key elements of the question and depth of knowledge is very poor. Quality of communication is poor or limited. [12]

7 There are two main elements to this question – the causes and impact of debt. Candidates need to address both but a balance is not needed. They do not need to introduce place for illustration so do not expect this.
A candidate who leaves out causes or impact will be marked with a max [6] marks.

If candidate uses an MEDC, restrict to Level 1.

Level 3 ([9]–[12])
A good answer that clearly understands the causes of debt and is able to offer a number of ideas as to the impact of this problem. Quality of language is good.

Level 2 ([5]–[8])
Still a good answer but one of the elements to the question may be weaker. The depth of knowledge will be less.

Level 1 ([1]–[4])
The understanding is poor and there may be inaccuracies. The quality of communication will be poor. [12]