



MS4
£4.00

GCE MARKING SCHEME

**GEOGRAPHY (NEW)
AS/Advanced**

SUMMER 2009

INTRODUCTION

The marking schemes which follow were those used by WJEC for the Summer 2009 examination in GCE GEOGRAPHY (NEW). They were finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conferences were held shortly after the papers were taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conferences was to ensure that the marking schemes were interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conferences, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about these marking schemes.

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G1

- Q.1 (a) Use Figure 1 to describe the patterns of ice duration on Lake Mendota.**
Theme 1.2 [5]

The question is looking for the ability to identify patterns that indicate climate change at a variety of scales. There is a general decrease in the duration of ice from 1852 to 2007 whilst at a shorter scale there are fluctuations. Allow two marks for the application of this concept to the graph. Marks should be allocated to the use of the graph in the form of extraction of data such as duration of fluctuations, magnitude of fluctuations, groups of fluctuations, and data for general trends. Allow one mark for trend and 1 mark for exemplar. 1 mark for information from the box.

- (b) Explain how one type of extreme weather event has had an impact on human activity.**
Theme 1.4 [10]

The question is looking for an understanding of the weather event and impact on human activity – not looking for the causes of the extreme weather event. Most answers will address the question with reference to cyclones or drought but be prepared to credit other events that can be reasonably linked to climate change – extreme snowfall, periods of low temperature, rainfall events. The focus of the question is on the short term rather than long term climate change.

Answers may contain an element that is a description of the characteristics of the extreme weather event and this can be given credit as it is setting the scene for the impacts on human activity. This is however not a prerequisite for a Level 3 answer as some may give great detail on impacts. The concept of human activity is broad and any valid impact relative to the identified event should be given credit. Impacts may focus on demographic, economic and social although many candidates may not classify their responses in such a manner. Common responses will see an event as having an impact on mortality, migration, food production transport, aid, energy consumption etc. There will be other impacts that may be valid.

The approach may focus on impacts at a regional scale e.g. drought in Australia, heat wave in France, floods in Tewkesbury. The other main approach will be to look at an event such as hurricanes and illustrate from around the world.

Level 3 8-10 marks	Detailed and developed understanding of impacts produced by the weather event. Knowledge of the characteristics of the weather event. Good development of examples.
Level 2 4-7 marks	Developed knowledge of the characteristics of the weather event. Some understanding of impacts produced by the weather event. Examples are evident and enhance the explanation.
Level 1 0-3marks	Superficial knowledge of the characteristics of the weather event. Superficial understanding of impacts produced by the weather event. Little use of examples.

(c) Outline strategies used to address climate change:

Either, by governments

Or, by pressure groups and/or individuals

Theme 1.5 [10]

The question is looking for the identification and description of the response as well as an explanation of how it will combat climate change.

The analysis of government strategies may involve a variety of scales from parish council to the European Union. Do not expect all levels and many answers will only address one level and may look at one example e.g. Swansea, Gwynedd, Cornwall, Italy. The measures that are examined will therefore be varied. There may be comment on responses that look to decrease the emission of greenhouse gases such as financial measures (e.g. car taxes), the improvement of public transport, advertising to raise awareness, involvement in international agreements etc. Other responses may look at the methods used to combat the effects such as flood barriers, land use planning and training of emergency services. There will be other strategies so be prepared to credit if they are valid.

Strategies carried out by individuals will probably be centred on lifestyle choices such as switching to renewable energy, transport options, reduce energy use, energy efficient white goods, recycling, composting and buy food from local producers to save food miles. There will be other lifestyle strategies so be prepared to credit if they are valid. There may also be candidates who make comment on the individual acting as part of a pressure group and these should be given credit as long as it has an individual focus. Where pressure groups such as Greenpeace and Campaign against Climate Change are addressed there may be comment on how they raise public awareness by their advertising, campaigns, media work and demonstrations. There may also be comment on the lobbying powers of the groups in the political arena.

Level 3 8-10 marks	Knowledge and discussion is detailed and developed. Good use of examples.
Level 2 4-7 marks	Some depth to knowledge of strategies and how they can be applied to combat global warming. Examples are evident.
Level 1 0-3marks	Superficial knowledge of strategies and how they can be applied to combat global warming. Little use of examples.

- Q.2 (a) Outline the factors shown in Figure 2 that may have influenced the number of deaths caused by recent earthquakes in the eastern Mediterranean.** Theme 2.2 [5]

The question is looking for the ability to link the number of deaths to population density and the position of the fault. In general the higher numbers of deaths occur where there are high concentrations of population, proximity to cities of 500,000 inhabitants, coastal locations and to the fault. There is one possible anomaly in the centre of Anatolia and in Thessaloniki. Allow two marks for application of these concepts to the map. 1 mark per valid comment and 1 mark for development from the resource.

- (b) Explain the tectonic processes that occur at destructive plate margins.** Theme 2.1 [10]

The question is looking for an understanding of the processes operating at destructive boundaries. Answers need to display a knowledge and understanding of the internal forces that generate plate movement. At destructive boundaries credit should be given for comments that identify the movement of plates towards each other and the subsequent subduction of one of the plates. Some candidates may recognise different types of destructive margin – ocean/ocean, ocean/continent and continent/continent – and this should be credited. Some answers may give depth in this element but others may link the movement of plates to the production of volcanoes and/or earthquakes. Allow credit for this breadth of approach. Allow full marks for an approach that constructs the answer through a detailed annotation(s). Allow reference to extrusive tectonic **processes** such as liquefaction, lava flows etc.

Level 3 8-10 marks	Detailed understanding of process. Good examples.
Level 2 4-7 marks	Understanding of process has some depth. Examples are evident and enhance the explanation.
Level 1 0-3marks	Superficial understanding of process. Little use of examples.

- (c) Explain why some groups of people perceive tectonics hazards negatively.** Theme 2.3 [10]

The question is looking for an understanding of the nature of the hazards and the ability to apply this to the views of various groups.

Hazards produce a variety of impacts that can be perceived as negative. These can be classified into categories such as demographic, economic, social and environmental – do not require candidates to approach their answer in this manner but some will. There may be reference to the impact of volcanoes or earthquakes on mortality, migration, health, transport, economics, stress and landforms. Be prepared to credit reference to other valid impacts. Answers may be approached from a regional view or illustrated with reference to a variety of examples from all over the world.

Question is looking for the identification and analysis of the perception of groups. These may be seen most commonly as the inhabitants of an area and comment may be implicit in the analysis of the impacts of tectonic hazards. Other groups that maybe examined are government, rescue services and aid agencies – be prepared to accept other valid groups. Comment could be on the organisation required to combat the hazard or its effects and funds that are used in response to the hazard.

<p>Level 3 8-10 marks</p>	<p>Detailed development of evidence. Detailed understanding of process and integrated link to hazard produced. Good examples. Groups and perception integrated into answer.</p>
<p>Level 2 4-7 marks</p>	<p>Some development of evidence for view of hazard. Understanding of process has some depth and is well linked to the hazard. Examples are evident and enhance the explanation. Groups identified with link to perception. Max if answers lack balance in terms of emphasis on groups,</p>
<p>Level 1 0-3marks</p>	<p>Limited/superficial evidence for view of hazard. Superficial understanding of processes. Little use of examples. Superficial reference to groups or perception.</p>

Q.3 (a) Describe the predicted impact of the increasing severity of floods on commercial properties in Elgin shown in Figure 3. [7]

The table displays a number of patterns that can be identified:

- Increase in number of properties flooded with more severe flooding
- Manufacturing the only category flooded in 1in5 whilst others affected by more severe floods
- Retail biggest group after 1 in 5
- Manufacturing always important group
- Retail grows fastest
- Utilities consistently the lowest group
- There may be other valid patterns that are identified by candidates and these should be given credit.

Level 3 6-7 marks	Shows clear and detailed identification and description of patterns. Extensive use of data and locations.
Level 2 3-5 marks	Shows some ability to identify and describe patterns. Uses some information from graph in form of data and locations. Period by period account.
Level 1 0-2marks	Limited ability to identify and describe patterns.

(b) Describe two graphical techniques that could be used to represent the data in Figure 3. Justify your choice [8]

There are a number of graphical methods that are suitable to represent this type of data

For the change in total candidates will probably suggest a line graph and justify the choice by saying that the line shows change and that the angle of the line is able to indicate rate of change.

For the grouped data candidates may examine bar charts, cumulative bars and pie charts and justify these with comment concerning the ability of such graphs to display the relative importance of the groups and be able to compare this at each return period. Some candidates may look at graphs that show change of relative importance of different types of commercial properties over time. Be prepared to give credit to answers that use diagrams to show techniques rather than description in text format.

Justification of techniques chosen may be the same for each method chosen. This may point out issues such as ease of construction, clarity, ability to show change over time and identification of individual groups of commercial properties. Be prepared to credit other valid justification.

Some candidates may try to combine the change in total and relative importance by referring to proportional pie charts.

Level 3 6-8 marks	Good knowledge of graphical methods. Developed ability to apply knowledge of graphical methods to information shown in table. Developed justification.
Level 2 3-5 marks	Some knowledge of graphical methods. Some ability to apply knowledge of graphical methods to information shown in table. Some justification. Lacks balance.
Level 1 0-2 marks	Limited knowledge of graphical methods. Limited ability to apply knowledge of graphical methods to information shown in table. Superficial justification.

(c) Discuss the main conclusions of an investigation into a changing physical environment that you have undertaken.

You should state clearly the question you have investigated. [10]

The content of the answer will vary greatly as individual centres will engage in a wide variety of investigation. However the content should have a link to the substance of the specification.

The question is looking for the main conclusions and the better answers will refer the outcomes of the investigation to the original question, issue or hypothesis set by the candidate or centre. These responses may comment on patterns that were identified, processes that were proved, relationships that were recognised or characteristics that were distinguished. Other valid conclusions should be credited. A detailed description of the outcomes of the investigation will be enough to gain credit to the top of Level 2. To gain access to Level 3 the description must be more analytical. Credit considerations about possibilities for further investigation.

Level 3 8-10 marks	Detailed and analytical description of conclusions.
Level 2 4-7 marks	Sound description of outcomes with some attempt to link to the original question, issue hypothesis.
Level 1 0-3marks	Limited description of outcomes.

	Knowledge and Understanding	Application	Skills	
Question 1				
a		2	3	5
b	8	2		10
c	7	3		10
	15	7	3	25
Question 2				
a		2	3	5
b	8	2		10
c	7	3		10
	15	7	3	25
Question 3				
a			7	7
b	4	4		8
c	2		8	10
	6	4	15	

G2

Q1. (a) Describe the patterns of population growth shown in Figure 1. [5]

A selection of population *figures* in millions, with a selection of *dates*, starting from 1991, and a mention of *all four countries* would be ideal.

Suggestions

In 2009 the population of the UK is 62m made up of approximately:

52m in England

3m in Wales

5m in Scotland

2m in N Ireland

By 2031 the population projection is for 71m, an increase of 9m, representing an increase of 14.5 %

England 60.5 m

Wales 3.5m

Scotland 5m

N Ireland 2m

England is predicted to have by far the largest increase (16.5%) whilst the other three countries remain fairly stable. The pace of population growth quickens in England after 2009 compared with the other three countries.

2 marks for the use of statistics.

2 marks for using a variety of countries.

1 mark for some meaningful general statement of change.

(b) Outline the consequences of the inflow of refugees and asylum seekers into countries with developed economies. [10]

It would be useful if candidates distinguished between refugees and asylum seekers as an elaborative point in their outline, but as they haven't been specifically asked to do so then no specific marks can be allocated to this point.

The consequences can be local, regional and/or national.

Economic

- It puts extra economic pressure on social services, social security, NHS, police, education.
- The status of refugees can sometimes be dubious; are they really refugees because they fear for their life in their own countries or are they economic migrants using refugee status as an excuse to migrate? The authorities must spend much time and effort and resources on sorting out the genuine from the false.
- From a government economic viewpoint in-comers are good for the economy as wage rates can remain competitive.

Social

- It maintains low living standards in already deprived areas.
- The issue of repatriation is often an emotional one in which human rights lawyers have become involved!

Cultural

- Indigenous people may be upset by different habits of the in-comers.
- Religious differences and respect for the law in the new homeland may be an issue.

Demographic

- In-comers tend to have higher birth rates than the indigenous population; this can cause resentment and extra pressure on the NHS.
- Social issues of repatriation may occur.
- Asylum seekers need to be located somewhere whilst their application for asylum is processed. This can lead to tensions between the local community who have an asylum centre in their area and the asylum seekers themselves.
- Migrants could be good for the demographic make up of a country which may be entering Stage 5 of the DTM.

Although an attempt has been made to segregate the consequences, there is a considerable amount of overlap and integration between points.

Level 3: 8-10 marks	Wide ranging consequences realising the varied and interrelated nature of the issue. Some specific information is used.
Level 2: 4-7marks	Consequences are adequate, but do not recognise the broader issues with limited specific information. Maximum if refugees and asylum seekers are not specifically addressed.
Level 1: 0-3marks	Consequences are generalised with little depth or illustration.

(c) Explain the reasons for variations in mortality rates between countries at two different stages of the demographic transition.

[10]

Two countries to be chosen from any two demographic transition stages from 2 to 5.

Mortality influences in Stages 2 and 3.

High and increasing e.g. Botswana 27

- AIDS, especially in Africa;
- Lack of medical care;
- Drought, famine, wars.

Also high, but declining: e.g. Tanzania 15

- medical advancement;
- government initiatives in health care;
- better diet, with a more sustainable food supply;
- international aid.

Mortality influences in Stages 4 and 5

Death rate is historically low, but above birth rate and increasing: e.g. Germany 10.

Lifestyle

- Obesity caused by ill-advised diet choice and lack of exercise (heart attacks).
- Sedentary occupations, lack of exercise (heart attacks).
- Personal abuse: drugs, alcohol, smoking (cancer).
- Unprotected sex (STDs, Aids)
- Suicides.
- Murders.
- Industrial accidents and road deaths.

Lifecycle.

- Medical technology can keep more people alive into their 70s, 80s and 90s so the number of older people increases, but then all these old people die together in their 70s, 80s and 90s. With so many old people dying, this leads to a relatively high death rate for a country.

World War II

- The baby-boomers of the late 1940s to early 1950s are within the pensioner bulge predicted and entering the higher death rate cohort of the population.

Candidates should be awarded credit for DR differences between the sexes.

Level 3: 8-10 marks	Uses good specific information to contrast the reasons for the differences in mortality in at least two appropriate countries.
Level 2: 4-7marks	Demonstrates a range of points which are well structured, but individual description dominates to the detriment of explanation and with limited case study input. Imbalance.
Level 1: 0-3marks	Demonstrates some aspects in general terms with little depth nor illustration.

Q.2 (a) Describe the pressures shown in Figure 2 on the Green Belt south of London.

[5]

Suggestions:

- Pressures are derived from the encroaching *urban land uses* into the rural area on the edge of London.
- A recognition of land uses of benefit to urban areas is required such as:
Transport: the M25 Motorway and the numerous A roads.
Leisure and recreation: theme park; race course; Country Park; golf course.
- Urban services of great value to urban dwellers: (disused) quarry; college; prison; cemetery.
- Commuter / dormitory / counterurbanised / sub-urbanised settlements; such as Leatherhead; Tadworth; Dorking; Redhill; Reigate.
- *Rural land uses* will include lots of farms, including the stud-farm; Banstead Wood; Epsom Wood; Banstead Common...

Answers should recognise that the traditional rural uses are being invaded by land uses to serve the urban community. This puts *pressure* on the managers of this fringe area and hence its designation as a *green belt*. Thus the competing land uses are considered thoroughly by the planning system before any new developments are allowed.

Up to 4 marks for recognising a variety of land uses with examples specifically from the resource.

1 mark for recognition of the conflict (pressure) situation between land uses.
Max. 3 if a simple list of land uses is given.

(b) Outline how perceptions of rurality have led to changes in the nature of rural settlements.

[10]

The rural idyll: a chocolate box-top picture of the traditional rural pre-intensive farm-based economy often deludes people into moving out of a city environment and into a counter urbanised village, small town or isolated cottage.

Such *perceptions* are often shattered.

The perception of rurality is responsible for a large growth in counter urbanisation.

Availability of cheap transport and a greater disposable income are contributory factors, but should not be dwelt upon in the answer.

The *nature* of rural settlements has changed as urbanites with their urban lifestyles and perceptions have moved into a different cultural set up.

Changes may be demographic, environmental, social/cultural, political, and/or economic.

Demographic

- The structure of the village population will change with a younger age range.
- Local schools will also change in their number of pupils.

Environmental

- Noise disturbance from extra traffic and partying from the newcomers.
- The built environment will change as urban estate-like regimented housing styles infiltrate the more traditional rural architecture.
- Commuting will cause more traffic with associated congestion and atmospheric pollution.

Social / cultural / political

- There will be conflicts about future village development.
- Language issues may arise in certain parts of the UK.

Economic

- The local economy will change with either more or less retail outlets.
- Village services such as the post office and bus services may change.
- Recreation and leisure providers will benefit.

Perceptions could also cause villages to *decline in population* as second home buyers reduce the permanent population causing a decline in local services, resentment and an older permanent population.

Answers may focus on perception being responsible for population increase or decrease or examples of both.

The question asks about the *nature* of changes and not the process of change.

Level 3: 8-10 marks	Wide ranging suggestions based on good descriptions with reference to real located examples.
Level 2: 4-7marks	Suggestions are adequate, but quite descriptive with limited reality inclusions.
Level 1: 0-3marks	Suggestions are generalised with little depth or illustration.

(c) **Explain why redevelopment has taken place within Central Business Districts in recent years.**

[10]

CBDs have had to reinvent themselves to come to terms with many changes.

Economic

- People have more disposable income and a shopaholic society has developed.
- CBDs have changed from suiting a society with needs to a society with wants.

Social

- Younger people are delaying settling down with a partner and family and are spending money on entertainment, so CBDs have responded by creating entertainment sectors with lots of bars, clubs, cafes

Environment

- CBDs have improved their environment with pedestrianisation, flowers, trees and fountains as people expect a more pleasant shopping experience to suit their greater disposable income.

Out-of-town developments

- CBDs have had to compete vigorously with out-of-town developments.

Inner city redevelopments

- Reurbanisation and studentification have provided a larger purchasing power within walking distance of the CBD.

Internet

- CBDs have to compete with internet shopping so have to encourage people with a much more pleasurable experience than clicking a mouse button!

This question is about CBDs. It is likely that examples of inner-city regeneration schemes may be given. It is debatable whether such schemes have incorporated what was once inner city into an expanded CBD. If a candidate recognises expansion of the CBD in this fashion then a Level 3 answer is achievable.

One or more case studies of one or more CBDs is expected to include a selection of explanations similar to the above. It would be expected that description of changes would accompany explanations, but purely descriptive answers cannot reach Level 3.

Level 3: 8-10 marks	Wide ranging explanations based on good descriptions with reference to real located examples.
Level 2: 4-7marks	Explanations are adequate, but quite descriptive with limited explanatory points.
Level 1: 0-3marks	Explanations are generalised with little depth or illustration.

Q.3 (a) Figure 3 was used in an investigation into inner city change. Describe the variety of land uses seen on the photograph and their locations.

[7]

Transport

- A major road, possible dual carriageway; SW corner.
- A railway running east to west at the extreme southern edge.
- Grid road pattern in housing estates in the centre and north.

Industrial

- A factory or warehouse, SE corner, with lorry parking at the rear and staff car park to the west; unit is over 10,000 square metres (from scale).
- Old train shed to south of factory /warehouse, between it and the railway.

Retail

- A shopping centre with perhaps 8 units in SE corner; large car park to NE of shopping centre.

Residential

- Terraced houses, probably Victorian, no front or back gardens, narrow streets; in centre.
- More spacious housing, possible 1930s; regimented, but with gardens; towards NW.
- Very spaciouly laid out estate of houses, NE corner, possible 1930s council?

Allotments

- North of the factory/ warehouse.

Recreational space

Level 3: 6-7 marks	Recognises at least four land uses with good detail from the photograph and can appropriately locate the land uses.
Level 2: 3-5marks	Recognises several land uses, but the depth of photographic interpretation and/or location are patchy.
Level 1: 0-2marks	Limited information from the photograph with little coherent attempt to locate adequately.

(b) Suggest and justify how you would plan a questionnaire survey to investigate one of the following aspects of inner city change: [8]

- (i) environmental;
- (ii) economic;
- (iii) social.

The key points about questionnaires are that they should:

- have a pilot;
- avoid bias;
- consider a sampling strategy;
- have tick boxes wherever possible;
- consider where, when and how: face to face, door to door, by post, by email;
- consider what may affect the results: the weather, time of day, day of the week, season;
- risk assessment.

Candidates may attempt to construct a questionnaire as part of their answer which may prove a valuable inclusion.

Which of the three elements of change is chosen for the focus of the questionnaire is not as important as fieldwork process of constructing and conducting the questionnaire activity. Max. Level 1 if only the questions are given without justification.

Level 3: 7-8 marks	Full appreciation of how to construct and conduct a questionnaire survey. Perhaps a relevant example of a questionnaire has been included.
Level 2: 4-6marks	Imbalance between construct and conduct. Unsure about all the necessary steps. Adequate in parts, but incomplete procedures.
Level 1: 0-3marks	Sketchy response. Thin and missing several vital steps.

(c) Evaluate an investigation that you have undertaken into a changing human environment. [10]

Marking will depend on the quality of response and must be adjusted to suit individual studies presented.

A summary of the outcome of the research could be present.

The evaluation should include limitations with the methods of data collection. Any extensions to the study, any changes if the study were to be repeated and any links with the broader field of geography would all be relevant inclusions.

See below for what the specification expects a candidate to appreciate.

- critically reflect on and evaluate the potential and limitations of approaches and methods used both in and outside the classroom. AO3 Spec p11

- realise that further research may be necessary and be able to suggest further avenues of investigation and/or questions to be answered. Spec p16

Level 3: 8-10 marks	A full, comprehensive, logical and coherent evaluation.
Level 2: 4-7marks	A very good account, incorporating a broad range of points.
Level 1: 0-3marks	Sketchy and perhaps confused,

	Knowledge and Understanding	Application	Skills	
Question 1				
a	1	1	3	5
b	7	3		10
c	7	3		10
	15	7	3	25
Question 2				
a	1	1	3	5
b	7	3		10
c	7	3		10
	15	7	3	25
Question 3				
a	1	1	5	7
b	2	1	5	8
c	3	2	5	10
	6	4	15	25

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