

Mark Scheme (Results)

January 2011

GSE

GCE Geography (6GE01) Paper 1

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.
- Mark schemes will indicate within the table where, and which strands of QWC, are being assessed. The strands are as follows:
 - i) ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear*
 - ii) select and use a form and style of writing appropriate to purpose and to complex subject matter*
 - iii) organise information clearly and coherently, using specialist vocabulary when appropriate.*

General Guidance on Marking

All candidates must receive the same treatment.

Examiners should look for qualities to reward rather than faults to penalise. This does NOT mean giving credit for incorrect or inadequate answers, but it does mean allowing candidates to be rewarded for answers showing correct application of principles and knowledge.

Examiners should therefore read carefully and consider every response: even if it is not what is expected it may be worthy of credit.

Candidates must make their meaning clear to the examiner to gain the mark. Make sure that the answer makes sense. Do not give credit for correct words/phrases which are put together in a meaningless manner. Answers must be in the correct context.

Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the Team Leader must be consulted.

Using the mark scheme

The mark scheme gives:

- an idea of the types of response expected
- how individual marks are to be awarded
- the total mark for each question
- examples of responses that should NOT receive credit.

- 1 / means that the responses are alternatives and either answer should receive full credit.
- 2 () means that a phrase/word is not essential for the award of the mark, but helps the examiner to get the sense of the expected answer.
- 3 [] words inside square brackets are instructions or guidance for examiners.
- 4 Phrases/words in **bold** indicate that the meaning of the phrase or the actual word is **essential** to the answer.
- 5 ecf/TE/cq (error carried forward) means that a wrong answer given in an earlier part of a question is used correctly in answer to a later part of the same question.

Quality of Written Communication

Questions which involve the writing of continuous prose will expect candidates to:

- show clarity of expression
- construct and present coherent arguments
- demonstrate an effective use of grammar, punctuation and spelling.

Full marks will be awarded if the candidate has demonstrated the above abilities.

Questions where QWC is likely to be particularly important are indicated "QWC" in the mark scheme BUT this does not preclude others.

Question Number	Answer	Mark
1 (a)	Drought Floods	1 1 (2)

Question Number	Answer	Mark
1 (b)	B hazards x vulnerability / capacity to cope	1 (1)

Question Number	Answer	Mark
1 (c)	<ul style="list-style-type: none"> • Warmer ocean = more energy/higher wind speed ❶ • Temperature of 26-27C needed ❶ may name key affected areas ❶ • More evaporation = heavier rain ❶ • May comment on changes to tracks and populated areas ❶ • May comment on strength as well as frequency ❶ • Accept other factors e.g. Sea level rise leads to more people at risk, or ENSO if correctly linked to global warming ❶ 	(3)

Question Number	Answer	Mark
1 (d)	<ul style="list-style-type: none"> • Better technology to detect earthquake events that have happened • Greater variety and coverage of media = wider reporting; increase in social media • Population natural increase in risky areas • Migration into risky areas • May have other ideas <p>Award ❶ mark for a basic outlined idea and an additional ❶ mark for any extension and / or applied example, not just named place. For full marks, must comment on the reporting and not just describe increasing EQ disaster risk.</p>	(5)

Question Number	Answer	Mark
2(a)	B E F	1 1 1 (3)

Question Number	Answer	Mark
2(b)	<p><i>Strengths</i></p> <ul style="list-style-type: none"> • Makes basic point about lives / property saved • Offers some description of how this may achieved but do not credit ideas taken from 2(a) • Recognises it may be only option for poor societies • Necessary as some changes are now inevitable • Accept benefits for some groups of no mitigation <p><i>Weaknesses</i></p> <ul style="list-style-type: none"> • Does not tackle underlying cause of climate change • limited scale of many local strategies, meaning little protection in a high-emissions scenario • May provide details to support this view • Human lives may be saved both other losses still occur e.g. biodiversity • High costs may be involved building defences • May offer some details of costs <p>Credit other valid ideas in both cases. Award up to three marks in either case (strengths or weaknesses), accept two extended points for 4 marks</p>	(4)

Question Number	Answer	Mark
2(c)	<p>Costs likely to consist of losses but some answers may continue in same vein as (b) and discuss costs of adaptation.</p> <ul style="list-style-type: none"> • Animals may die ❶ some farmers e.g. in semi-arid Sahel belt may have to abandon their way of life altogether ❶ • Crops may need to change / adopt more drought tolerant varieties ❶ which costs farmers money ❶ • Positive benefits can be linked with increased rainfall ❶ or other changes ❶ • May take a broader look at economy e.g. could see loss of tourism revenues ❶ if habitats are lost ❶ • Accept other sensible suggestions (there will be many) <p>Maximum four marks for a list of economic impacts e.g. farming, tourism, city businesses. For five marks, needs some complexity e.g. different areas of Africa, groups, positive/negative, linked impacts etc...</p>	(5)

Question Number	Answer	Mark
3 (a)	South-east England	1 (1)

Question Number	Answer	Mark
3(b)	<ul style="list-style-type: none"> • Torrential rain / storm events increase flooding along river valleys ❶ especially steep relief e.g. Boscastle ❶ • Other hydrological cycle changes e.g. possible loss of broadleaf tree canopy interception cover in a high-emissions future ❶ so more overland flow flooding ❶ • Storm surges may be driven inland more frequently ❶ e.g. Thames estuary ❶ • More extreme storm events cause urban / pluvial / surface water floods ❶ may suggest examples ❶ • Do <i>not</i> credit sea level rise unless clearly linked with flooding of rivers/floodplains • Credit other sensible suggestions <p>Up to three marks for either answer</p>	(4)

Question Number	Answer	Mark
3(c)	<ul style="list-style-type: none"> • Future trends in GHG emissions are hard to forecast - no-one knows for sure how much ice will melt ❶ how much thermal expansion ❶ • This is in turn due to difficulties in predicting economic growth e.g. of China ❶ or anticipating speed of post-Kyoto political developments ❶ • Science of sea-level rise still not fully understood e.g. operation of carbon sinks ❶ • Unexpected positive feedback events / tipping points ❶ e.g. albedo changes at Arctic ❶ • Mechanisms of ice melting not understood so IPCC ignored it in the scenario policy-makers use ❶ • Natural causes of change could be mentioned and award 1 mark for specific suggestions e.g. ice ages ❶ 	(5)

Question Number	Answer	Mark
4 (a)	Poland	1 (1)

Question Number	Answer	Mark
4(b)	D South America and Africa	(1)

Question Number	Answer	Mark
4(c)	<ul style="list-style-type: none"> • Lack of wealth / customer base ❶ may offer details e.g. GDP figures for Saharan Africa ❶ • Concentrating on making more profits elsewhere e.g. UK / US markets ❶ and may offer details of emerging Asian markets grabbing Tesco's attention ❶ • May suggest possible obstacles to market entry in South America / Africa e.g. political instability and conflict ❶ or trading laws / disputes / trade bloc ideas ❶ <p>Any three acceptable ideas = 3 marks</p>	(3)

Question Number	Answer	Mark
4(d)	<ul style="list-style-type: none"> • Physical spread of new plants or stores achieved through FDI ❶ either to build new facilities ❶ or through mergers and acquisitions ❶ and may have examples or details e.g. of low-cost labour ❶ • Marketing success achieved through glocalisation strategies ❶ and may have examples of TNCs customising their products for locals ❶ • Political factors include IMF / World Bank opening up markets ❶ through SAPs ❶ and may have examples ❶ • EU / NAFTA trade blocs ❶ make investing easier ❶ • Geopolitical dimension e.g. US TNC investment in places where military intervention occurred ❶ may have examples e.g. South Korea ❶ <p>Accept a wide interpretation of 'expand' e.g. bigger profits, lower costs, more markets / countries</p>	(5)

Question Number	Answer	Mark
5 (a)	2004	1 (1)

Question Number	Answer	Mark
5 (b)	Arrival of A8 / eastern European/ Polish EU migrants or expansion of EU (there are many variations in expression - but one of these two themes needs to be conveyed)	1 (1)

Question Number	Answer	Mark
5(c)	<ul style="list-style-type: none"> • More immigration than emigration • Both rise then fall • Both uneven • Identifies specific year when fall begins or similar • May quote data 	(3)

Question Number	Answer	Mark
5(d)	<ul style="list-style-type: none"> • People are living longer so more retirees to migrate ① and they are staying healthier e.g. into their 80s so more fit to travel ① May offer reasons for increased longevity ① • Particular appeal of warm Mediterranean / Spanish climate ① may offer specific details / suitability for the elderly ① • Role of low-cost airlines / jets ① may have figures / specific airports ① • Easier to stay in touch with family than in the past / internet ① • Economic pull factors include (past) Euro exchange rate ① availability of cheaper property or other pulls ① may know specifics ① • Up to 2 marks for specific / convincing UK push factors that do not simply mirror the pull factors 	(5)

Question Number	Answer	Mark
6(a)	X Y	1 1 (2)

Question Number	Answer	Mark
6(b)	<ul style="list-style-type: none"> • Increased availability contraception • women's changing aspirations • legal abortion • decline in marriage / rising marriage age • there are a great many other possibilities (credit any sensible suggestion) 	(1)

Question Number	Answer	Mark
6(c)	<ul style="list-style-type: none"> • (National) Census ① and may offer details of availability online ① or recording periods ① or shows it records both economic and social data • Other written sources include parish registers ① and may know online sources for researchers ① • Oral histories of older people ① photographs, diaries and other evidence of change ① • There will be other valid suggestions • Credit up to 2 marks for a range of sources/techniques that study the present day only <p><i>For full marks, answer need not distinguish between economic and social changes but should imply local</i></p>	(4)

Question Number	Answer	Mark
6 (d)	<ul style="list-style-type: none"> • These countries had Empires / colonies which established a connection ① • Generic pull factors for migrants may be listed ① • Joining family ① • Specifics could include English language skills of ex-British colonies ① or other affinity with UK ① • Recruiting drive e.g. NHS's Indian doctors ① or London Underground's Jamaican recruitment ① • Sense of responsibility / fewer restrictions for ex-colonies / Commonwealth members (at first) ① • Specific push factors should be credited e.g. UK/Ugandan Asians or France/Algeria • There will be other suggestions 	(5)

Question Number		Indicative content
7 (a)		<p>Some places more than others - Many coastlines and island arcs are plate boundaries; subduction occurs along many stretches. As a general rule continental interiors are less affected. Hawaiian hot spot may be commented on - factors such as mantle plume / thinner crust may be explored.</p> <p>Risk of a major volcanic disaster - Figure 7 shows active or historically active volcanoes. Good answers may additionally show a clear grasp of the fuller dimensions of the risk equation. The worst disasters occur when coastlines that have also attracted a great deal of human activity (reasons may be offered e.g. trade, soils, aquaculture) experience tectonic activity.</p>
Level	Mark	Descriptor
Level 1	1-4	Poorly structured. At top end, understands that areas not on plate boundaries lack tectonic activity. Lacks real explanation of why this is so. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-7	Some structure. May comment on human factors as well as volcanic processes. Some explanations of disaster risk, or a descriptive comparison, but likely to be geographically narrow. Can explain processes but not always in depth. May introduce own ideas. Some geographical terminology is used. There are some written language errors.
Level 3	8-10	A well-structured, correct explanation of volcanic disaster risk (human and physical factors), likely to provide more of an overview and can offer a comparison with own examples. Appropriate geographical terms showing understanding. Written language errors are minor.

Question Number		Indicative content
7 (b)		<p>Philippines - volcanic & earthquakes (subduction zone so violent eruptions), landslides, tsunami, floods and in the typhoon belt.</p> <p>California - earthquakes (active faults but no volcanic risk), coastal mass movements, El Nino flood years, drought & wildfires.</p> <p>Affected by disaster- focus should be on varying risk and differing vulnerability / capacity to cope found at these two disaster hotspots, and not just differences in hazard severity / numbers of hazards.</p>

Level	Mark	Descriptor
Level 1	1-4	Little structure. One or two descriptive ideas about hazard hotspots. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-8	Some structure and provides a descriptive account of both hazard hotspots experiencing disasters. Limited accurate details and narrow. May apply a simple dollars/lives lost distinction. Some geographical terminology is used. There are some written language errors.
Level 3	9-12	Structured account which discusses vulnerability but may have slightly simplistic view. Examples of hazards are specific, as are the explanations (e.g. correct account of the different plate boundaries). Reasonable range of hazards discussed. Geographical terms show understanding. Written language errors are minor.
Level 4	13-15	Well-structured and wide-ranging explanation. Physical processes and differing vulnerability are well-explained. Good use of a range of examples of hazard events for both hotspots. Uses appropriate geographical terms and exemplification to show understanding. Written language errors are rare.

8 (a)		<p>CO2 emissions - Figure 8 provides evidence both of total carbon footprint (linked to population size) and per capita figures (linked to lifestyles & p.c. energy / resource consumption). Both can be commented on.</p> <p>Differences - Key themes likely to include level of development (Bangladesh low), emerging economy of China (and its large population size / needs) and role of US (as major economic superpower and energy user). If done well, award full marks for these three (or others) so long as per capita and totals both touched on. Other possible themes include degree of regulation, belief in the science, attitudes of industry, etc. Also physical 'needs' (e.g. Saudi high figure may reflect air conditioning, desalination etc).</p> <p>Credit 2 done in detail or a range in less detail; both could achieve level 3</p>
Level	Mark	Descriptor
Level 1	1-4	Little structure. Lists some data from Figure 8 and may assert that the US is rich / selfish, or that some countries have more people. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-7	Some structure; attempt to suggest multiple reasons for differences. Some geographical terminology is used. There are some written language errors.
Level 3	8-10	Well-structured account that provides explanations for a range of differences. Progresses beyond assertions about wealth / population sizes. Appropriate geographical terms show understanding. Written language errors are minor.

Question Number	Indicative content
8 (b)	<p>Evidence - Can be historical sources that show GHG emissions rising recently in an unprecedented way (e.g. 'long-term' ice cores) or modern 'short-term' CO2 data (Mauna Loa). 'Medium-term' likely to be defined as evidence for change in recent centuries (e.g. 'little ice age' paintings). Credit the observed evidence for climate change itself (rising sea levels, ecosystem change, ice melt etc) if it is argued that this helps build a GHG hypothesis. Also accept geological long-term (coal, sandstone as evidence for ancient change).</p> <p>Climate change - Nitrous oxide and methane may be discussed alongside CO2.</p>

Level	Mark	Descriptor
Level 1	1-4	One or two generalised statements, perhaps about how climate change is being observed. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-8	Some structure. May suggest a key source of evidence e.g. ice cores but details are generalised. May ignore the three suggested time scales. Some geographical terminology is used. There are some written language errors.
Level 3	9-12	Structured account that deals with all three scales, or a good account of a more narrow range of evidence (probably ice core analysis). Geographical terms show understanding. Written language errors are minor.
Level 4	13-15	Well-structured account which discusses a range of evidence for the three time scales in detail. May begin to examine accuracy/reliability of evidence. Uses appropriate geographical terms and exemplification to show understanding. Written language errors are rare.

Question Number	Indicative content
9 (a)	<p>Shrinking world - a range of communications and transport technology innovations are shown, all of which have contributed to time-space compression as part and parcel of globalisation.</p> <p>Technological innovations for many people - good answers will do more than agree that a shrinking world exists; they will explore how this is experienced by people, either in terms of the ability to move across large distances quickly or to participate in real-time interaction with people across the world (e.g. Facebook). The best answers will comment on 'may have' and will recognise that people born later in the C20 have experienced the shrinking world to a greater extent; or may recognise many people living in poverty today actually have very little sense of a shrinking world ('two-speed world').</p>

Level	Mark	Descriptor
Level 1	1-4	One or two generalised statements about all technology making it easier to talk across or move across distances. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-7	Some structure and some discussion of a range of technologies and how they contribute to a shrinking world. May categorise technology and transport. Some geographical terminology is used. There are some written language errors.
Level 3	8-10	Structured explanation of the effects of a range of technologies and transport on different groups of people. May have good details of shrinking world. May reflect on a two-speed world. Appropriate geographical terms show understanding. Written language errors are minor.

Question Number	Indicative content
9 (b)	<p>Global groupings - Expect knowledge of broad economic and political groupings. Some are analytical categories (NICs, RICs, BRICs, LDCs, LEDCs) others are formal groups with membership roster e.g. G7/8/20, OECD; also trade blocs (EU / NAFTA) and OPEC cartel. Good answers should go well beyond threefold LEDC/NIC/MEDC. May comment on dynamic nature of groups.</p> <p>How nations are classified - Membership groups are self-explanatory. Economic classification e.g. LDCs / NICs uses a range of indicators e.g. GDP/GNI/PPP or HDI scores amongst others. The best answers may have an evaluative style that recognises difficulties, grey areas and overlap when trying to classify, etc.</p>

Level	Mark	Descriptor
Level 1	1-4	One or two groups outlined / a few listed. Frequent written language errors.
Level 2	5-8	Some structure, with some groups described. Or has something to say about development but does not recognise many examples of actual groupings. Some geographical terminology is used. There are some written language errors.
Level 3	9-12	Structured account which outlines a range of economic and/or political groupings; or may attempt to show how classification is achieved, though with fewer examples of actual groupings. Geographical terms to show understanding. Written language errors are minor.
Level 4	13-15	Well-structured account which explains how a range of well exemplified groupings are classified. May comment on the difficulties of grouping countries/overlaps. Uses appropriate geographical terms and exemplification to show understanding. Written language errors are rare.

Question Number		Indicative content
10 (a)		<p>Megacity size - Figure 10 shows 7 rising to 26; importantly for the question, it show a rising number reaching 15 million or more.</p> <p>Distribution - Figure 10 shows a clear eastern shift in the pattern</p> <p>Reasons for changes - Generic reasons may be offered of size increases everywhere - more rural-urban migration, natural increase, globalisation and FDI from TNCs building opportunities in global hubs. Specific reasons should be given about why there is so much new growth in Pacific-Asia.</p>
Level	Mark	Descriptor
Level 1	1-4	A few changes described using Figure 10. Basic explanation of rural job - seekers at top of level. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-7	Some structure - describes size and implies distribution change (may show changing geography by naming places where growth has occurred) and suggests some reasons but is likely to be unbalanced. Some geographical terminology is used. There are some written language errors.
Level 3	8-10	Structured examination with some balance between reasons for bigger cities and changing distribution; Appropriate geographical terms show understanding. Written language errors are minor.

Question Number		Indicative content
10 (b)		<p>Challenges- how to minimise the negative externalities of growth e.g. housing shortages, infrastructure, services, crime, pollution (emphasis differs according to whether they are developed/ consolidating megacities or developing/ emerging)</p> <p>Using examples - expect good details at L3 / 4. The best answers may reflect on the nature of 'rapid' growth and the planning problems arising from hundreds of thousands of arrival per annum in say, Sao Paulo, when compared with slower growth rates in New York.</p> <p><i>Max 10 marks if no example of a rapidly growing megacity is used</i></p>

Level	Mark	Descriptor
Level 1	1-4	Limited identification of one or two problems associated with megacities, one of which may be named at top of level. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-8	Some structure in an examination that provides details of a range of generic problems. Some geographical terminology is used. There are some written language errors.
Level 3	9-12	Structured examination that includes a range of challenges. At the top end, may recognise the nature of the challenges varies according to level of development. Geographical terms show understanding. Written language errors are minor. Good use of examples
Level 4	13-15	Well-structured account explains a range of specific challenges. Likely to show awareness of the level of development / rapidity of growth that causes these to vary. Uses appropriate geographical terms and detailed exemplification to show understanding. Written language errors are rare.

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