

Mark Scheme (Results)

Summer 2010

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.*

Question Number	Answer	Mark
1(a)	<ul style="list-style-type: none"> • Asia / Pacific (or names 2+ Asian countries) • Uses latitude e.g. inter-tropical/north of equator • Coastal / islands • Small non-Asian clusters e.g. E. Africa / M. East <p>Point mark. Do not credit 'Eastern' (too general).</p>	(2)

Question Number	Answer	Mark
1 (b)	<p>A hazard is an event that is a <i>potential</i> threat to people/property ❶ whereas a disaster is an event where losses are actually <i>experienced</i> / harm caused / hazard is realised / happens ❶</p> <p><i>There are other ways of distinguishing between the physical event and a serious human outcome. Do not credit "disaster = a more serious hazard" or similar.</i></p>	(2)

Question Number	Answer	Mark
1(c)	D	(1)

Question Number	Answer	Mark
1 (d)	<ul style="list-style-type: none"> • In tropical cyclone / typhoon belt (sea temperatures warm enough / spin is possible) • Earthquakes and volcanoes at destructive margin (Philippines is subducted beneath Eurasian plate; may provide extended details of Pinatubo in 1991) • Landslides and tsunamis as secondary hazards • Six major droughts during 20th Century • High population/density (240 per sq km) • Megacity risks in Manila (2,000 per sq km) • Poverty increases vulnerability / low coping capacity • Coastal distribution increases vulnerability <p>❶ mark for each basic outline of a natural hazard/factor. ❶ mark for any extended physical detail. ❶ mark for each basic comment about vulnerability.</p> <p><i>Only award 1 mark for a hazard word list. Must have human and physical aspects or max 4.</i></p>	(5)

Question Number	Answer	Mark
2 (a)	(D) Thermal Expansion of the ocean	(1)

Question Number	Answer	Mark
2 (b)	<ul style="list-style-type: none"> • High flood risk = low-lying land/below sea level • Highest erosion risk = weaker / soft rock • Subsiding land e.g. Bangladesh delta • High-value environments e.g. salt marshes • Isostatic down-tilting in some places • At-risk area extends inland onto river flood plains • There are many possible physical suggestions • Lower risk for some vegetation eg mangrove <p>● mark for each basic physical idea and ● mark for each extension, or example, or comparison that is made. Can score 3 marks with 1 well developed idea.</p>	(3)

Question Number	Answer	Mark
2 (c)	<ul style="list-style-type: none"> • Dense/high populations (at the coast) • Poor/vulnerable populations • Detail of why people are attracted to coastal areas/economic activities located there • Limited coping capacity /ability to afford adaptation strategies e.g. flood walls, barriers, dykes, etc. • Land-use changes mean high tides reach further inland e.g. mangrove removal • Political issues e.g. government inertia • There are many more possible human suggestions <p>● mark for each basic human idea and ● mark for each extension or detail offered.</p>	(3)

Question Number	Answer	Mark
2(d)	<ul style="list-style-type: none"> • Different climate change estimates exist due to so many variables including CO2/GHGs ● may give specific e.g.(s) - rise of China/NICs/BRICS ● • Projections vary e.g. below or above 550 ppm ● thus range of possible sea-level scenarios, eg 19 - 59 cm (IPCC) or even much higher ● • Tipping point / positive feedback ideas make modelling complex ● and may have details e.g. Arctic albedo ● permafrost methane release ● • Credit players and agreements e.g. Kyoto • Credit other sensible suggestions and extensions <p><i>Point mark. Full marks can be gained by explaining a single idea (e.g. albedo) if it is well-extended.</i></p>	(4)

Question Number	Answer	Mark
3(a)	(D) Russia	(1)

Question Number	Answer	Mark
3(b)	<ul style="list-style-type: none"> • The annual GHG volume / output of a country • Mentions at least one gas other than CO2 (accept methane, nitrous oxide, water vapour or CFCs) • Clear on CO2 'equivalent' gases/global warming <p>Point mark.</p>	(2)

Question Number	Answer	Mark
3(c)	<ul style="list-style-type: none"> • Methane produced by agriculture / cows ❶ and cattle grazing now on the rise due to rising demand ❶ e.g. emerging Chinese markets for milk and meat ❶ and also more people alive ❶ • CO2 from fossil-fuel burning ❶ may give range of examples ❶ and/or offers an example of industrialisation e.g. 1750 UK or China / BRICs last few decades ❶ May outline deforestation ❶ and links to increasing rate e.g. soya production ❶ detail of other CO2 sources e.g. cement ❶ • Nitrous oxide emitted by combustion of fossil fuels ❶ and also by a range of industrial and agricultural activities ❶ and may provide details of rising demand ❶ • There are other gases (eg water vapour and CFCs) • Max 2 if no gas named/error 	(3)

Question Number	Answer	Mark
3(d)	<ul style="list-style-type: none"> • A country's business interests are threatened e.g. 'pre-Obama' reluctance of USA • Emerging / developing economies (China) say developed countries have greater responsibility • Scientific communities in some countries may be more sceptical, influencing politicians • Practical reasons, such as continued desire for air conditioning e.g. in arid states like Texas • Range of players other than government eg looks at public opinion/NIMBYism • Any other sensible suggestion and any extension <p>❶ mark for basic idea and ❶ mark for any extension and / or example of national / collective behaviour. Max 4 if no global context apparent.</p>	(5)

Question Number	Answer	Mark
4 (a)	<ul style="list-style-type: none"> • Higher in West London • Higher in central London/ progressive fall to East • Uses data <p>Point mark.</p>	(2)
Question Number	Answer	Mark
4 (b)	<ul style="list-style-type: none"> • Agricultural (farm labour, food processing) jobs • Also tourism / service sector / hotel jobs • Makes point that low wages (or 'DDD' nature of work) have deterred host population so demand. • Or ageing population, thus more work opportunity • Care home work / elderly rural population ideas • Migrants may go where there are others already as part of step migration / find social support • Suggests living costs are cheaper than cities <p>Accept all realistic suggestions 1 mark for each basic idea and 1 mark for any extension or example.</p>	(4)

Question Number	Answer	Mark
4(c)	<p>Poland, Estonia, Latvia, Lithuania, Hungary, Czech Republic, Slovakia, Slovenia, Romania, Bulgaria</p> <p>Any two. Accept mis-spellings.</p>	(2)

Question Number	Answer	Mark				
4 (d)	<table border="1"> <thead> <tr> <th>Positive impacts</th> <th>Negative impacts</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • Remittances sent back to source country • Returning migrants bring skills, expertise • Unemployment eased • Reduced pressure on services and resources • More jobs for women, if men migrate. </td> <td> <ul style="list-style-type: none"> • Dependency ratio rise • Difficulties enrolling target universities, schools etc • Families split apart • Loss of young cohorts - negative impact on arts and culture and sport • Loss of workforce so less economic output / GDP • Negative economic multiplier effect </td> </tr> </tbody> </table> <p>Accept all realistic suggestions. 1 mark for each basic idea and 1 mark for any extension /example. Max 4 if a good detailed answer lacks positives or negatives. Do not credit host country answers.</p>	Positive impacts	Negative impacts	<ul style="list-style-type: none"> • Remittances sent back to source country • Returning migrants bring skills, expertise • Unemployment eased • Reduced pressure on services and resources • More jobs for women, if men migrate. 	<ul style="list-style-type: none"> • Dependency ratio rise • Difficulties enrolling target universities, schools etc • Families split apart • Loss of young cohorts - negative impact on arts and culture and sport • Loss of workforce so less economic output / GDP • Negative economic multiplier effect 	(5)
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Question Number	Answer	Mark
5(a)	(B) Managing a city for welfare of future generations	(1)

Question Number	Answer	Mark
5 (b)	<ul style="list-style-type: none"> • Organic farms avoid use of farm chemicals ❶ reduced pollution / eutrophication ❶ better human health in the city ❶ They also provide local food so fewer food miles ❶ CO2 emissions lower ❶ • Solar power reduces dependence on fossil fuels ❶ so reduces city's ecological footprint ❶ may have economic argument (cheaper in the long term ❶) • Fewer disposable bags means resources conserved for use of future generations ❶ less litter in city ❶ • More public transport use reduces cars burning fossil fuels ❶ reduces other pollution issues e.g. low level ozone, smog ❶ reduces congestion ❶ may reduce living costs / less expensive in long run ❶ <p>Must provide two discrete points such as those shown above that are tied to the local / urban scale. Do not credit assertion that scheme 'fights global warming', or is renewable, unless CO2 reduction is also acknowledged.</p>	<p>2+2</p> <p>(4)</p>

Question Number	Answer	Mark
5(c)	<p>Answer should focus on reasons for variable progress:</p> <ul style="list-style-type: none"> • Money needed for authorities to plan and implement projects (consolidating / maturing / immature megacities framework may be applied) • May suggest sustainable approaches e.g. Dongtan ecocity, Curitiba, or schemes within megacities. • Sustainability can be practised by individuals in cities but dependent on wealth and knowledge • Overwhelming scale of the problem e.g. slums or pollution in some cities; continued in-migration; lack of political will or other priorities i.e. maximizing economic growth • Could argue Credit Crunch slowed plans for change in some badly-affected cities /countries <p>❶ mark for each basic idea and ❶ mark for extension or applied example. Do not credit small scale (village) examples. Max 4 marks if no comparative language used.</p>	(5)

Question Number	Answer	Mark
6(a)	<ul style="list-style-type: none"> • High price paid to growers • High prices paid to roasters • Workers own the co-operative • High overall cost to consumer • Groups /players working together positively • Fair trade • Organic • Uses recycled packaging <p>Point mark</p>	(2)

Question Number	Answer	Mark
6(b)	<ul style="list-style-type: none"> • Expensive for consumer - so avoids / buys less • Not all ethically labelled goods redistribute money to same extent - producers may still be poorly paid / consumers deceived • Some trade may be hard to monitor / regulate • Supermarkets driven by profit offer cheaper lines, so ethical sales may be limited • Ethical sourcing often limited to food and clothes - less choice in other areas e.g. toys, electrics • Yields may be lower especially for organic crops • Some CBDs may lack ethical suppliers / coverage • Credit other sensible limitations <p>● mark for basic idea and ● mark for any extension or example dealing with ethical trade (cash-croppers / sweat shops / food miles / organic). For full marks, should address producers (growers / workers but also accept retailers) as well as consumers (shoppers).</p>	(3)

Question Number	Answer	Mark
6(c)	<ul style="list-style-type: none"> • Credit outlining of what is meant by 'exploitation' and any example given • Globalisation / global shift linked with low-wage work in offshore locations - exploitation inevitable? • TNCs also avoid health, safety, pension costs; e.g. poor safety in Chinese factories / S. African mines • Governments repress unions /protestors to appeal to TNCs; e.g. Indonesia or Nigeria • Exploitation by sector - farms, factories, call centres(credit each outlined example) • May recognise there is a varied range of exploitation (wages / conditions not uniform) <p>● mark for each basic idea and ● mark for any extension and / or example of exploitation. Max 4 if no mention of global companies/TNCs/other players.</p>	(5)

Question Number		Indicative content
7 (a)		<p>Landslides - relief and gradient inland; wave erosion gives coastal risk. Links exist with other geophysical (earthquake) and hydro-metrological hazards (role of water in triggering slope failure), possibly linked with human factors such as deforestation.</p> <p>Avalanches - relief and climatic conditions are considerations as well as height of snow line / extent of glacial ice; again, important links with geophysical activity.</p> <p>Hazard risk - more significant in places with people</p>
Level	Mark	Descriptor
Level 1	1-4	Little structure. Unselective use of Figure 7, very basic links only made with mountains/slopes or coasts. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-7	Some structure. Some competent explanation of the causes of landslides / avalanches (may not distinguish). Some geographical terminology is used. There are some written language errors.
Level 3	8-10	Structured account (distinguishes between landslide / avalanche or physical / human elements of risk). Sound explanation relating to Figure 7 or own examples. Appropriate geographical terms show understanding. Written language errors are minor.

Question Number		Indicative content
7 (b)		<p>Economic losses risen over time - increased economic vulnerability relates to growth in people's assets including housing, valuable property and infrastructure, especially in NICs and developed economies; due to society getting richer plus more people alive. Can also argue for increasing frequency e.g. climate change bringing more extreme events.</p> <p>Number of lives lost has fallen - improved hazard risk assessment, prediction and monitoring increases lead time on events such as hurricane landfall, allowing evacuation. Increasing scientific expertise allows engineering of adaptation structures such as Thames Flood Barrier or resilient buildings in earthquake areas. Other adjustments include managed retreat and land use zoning. As wealth spreads (e.g. to BRICs), more countries can afford to introduce adaptation measures. Mitigation measures may also be mentioned, this includes afforestation.</p> <p>Have generally risen - may acknowledge it is a generalisation and there are exceptions to the rule (e.g. drought in Saharan Africa).</p>

Level	Mark	Descriptor
Level 1	1-4	Little structure. One or two simple / general statements only e.g. better hazard prediction. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-8	Some structure. A partial answer that describes rising costs and falling mortality. Limited / generalised details or examples. Some geographical terminology used. Some written language errors.
Level 3	9-12	Structured account that attempts to explain both aspects (do not always expect balance at this level). Examples & explanation are more specific. Geographical terms show understanding. Written language errors are minor.
Level 4	13-15	Well-structured, detailed explanation of both trends. Well-exemplified hazards; global overview / recognises exceptions . Causes of rising economic losses are clear. Uses appropriate geographical terms to show understanding. Written language errors are rare.

Question Number		Indicative content
8 (a)		<p>Opportunity - Figure 8 shows progression towards ice-free Greenland. Increased potential for specific activities e.g. agriculture, tourism, exploitation of minerals. Population growth possible with immigration (as area of inhabitable land increases). NB These are all shown to be very long-term opportunities.</p> <p>Some groups and communities - it is only likely to be Greenlanders themselves, or powerful economic players e.g. oil or travel TNCs, that view this kind of change as opportunity. Good answers will clearly specify who the players are.</p>
Level	Mark	Descriptor
Level 1	1-4	Little structure. Very basic points only about indistinct groups of people or the growth of ice-free land. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-7	Some structure. Outlines a range of possible local benefits or groups of people. Some geographical terminology used. Some written language errors.
Level 3	8-10	Structured account that outlines some specific opportunities for some clearly specified groups perhaps within wider context of a global threat. Appropriate geographical terms show understanding. Written language errors are minor.

Question Number		Indicative content
8 (b)		<p>Ecological impacts - explaining marine and land-based food web change and plant / animal / pests / soil / biome distributional change and habitat loss. Tree line movement northwards as tundra replaced by boreal forest. Glacial retreat and vegetation colonisation. Accept agricultural changes as part of the discussion. There is uncertainty over the timing and magnitude of changes (ice albedo / feedback changes may be discussed).</p> <p>Arctic areas - this is a large region with much local variability. Arctic ocean and land areas (glacial and periglacial) can be discussed. Impacts will not be uniform within the Arctic circle; future effects generally thought to be worst at highest latitudes.</p> <p><i>Max 10 for a good explanation of general environmental changes in the Arctic but with limited ecological content.</i></p>

Level	Mark	Descriptor
Level 1	1-4	One or two simple / general statements only e.g. polar bears. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-8	Some structure. A partial answer that describes some environmental / ecological changes in Arctic areas. Limited / generalised details or examples. Some geographical terminology is used. There are some written language errors.
Level 3	9-12	Structured account that attempts to explain changes in Arctic areas and is well-focused on ecology at top of level. Examples & explanation are more specific. Geographical terms show understanding. Written language errors are minor.
Level 4	13-15	Well-structured, detailed explanation of ecological changes. May use a range of Arctic environments. Uses appropriate geographical terms and exemplification to show understanding. Written language errors are rare.

Question Number	Indicative content
9 (a)	<p>Globalisation scores - invites discussion of globalisation as a diverse concept, with four sets of factors provided by the resource. Data may be quoted to highlight the extreme range.</p> <p>Vary so greatly - there is scope to develop and extend the ideas provided; trade (NICs) and tourism may be popular themes (economic points are shown as most important). Levels of national wealth is a key factor although political factors (e.g. China internet censorship or trade bloc membership) matter.</p>

Level	Mark	Descriptor
Level 1	1-4	Little structure. Unselective use of Figure 9. Very basic assertions about why some places lack points. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-7	Some structure. Some competent explanation of possible reasons why scores shown may be low or high. Some geographical terminology used. Some written language errors.
Level 3	8-10	Structured account. Sound explanation, based on Figure 9 and own ideas, for a range of reasons why countries perform differently. Appropriate geographical terms show understanding. Written language errors are minor.

Question Number	Indicative content
9 (b)	<p>Globalisation - Good definitions of the term may be offered and rewarded. Answer may take a long view of globalisation, in which case early migrations (e.g. Empire-building) is acceptable</p> <p>Migration flows - discussion of internal (rural-urban) migration may focus on the role of TNC inward investment to cities - and possibly even agribusiness transforming rural areas. International should also be discussed, with several 'globalising' trends possibly mentioned - EU accession; illegal movements; tightening of borders after 9/11; ease of movement for global elites.</p> <p><i>Max 10 for a good explanation of either internal or international migration only. Do not credit consequences.</i></p>

Level	Mark	Descriptor
Level 1	1-4	One or two simple / general statements only e.g. Polish workers. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-8	Some structure. A partial answer that describes some international and /or internal migrations. Limited / generalised details or examples. Some geographical terminology is used. There are some written language errors.
Level 3	9-12	Structured account that attempts to explain internal / international migrations. Well-focused on the distinction/globalisation at top of level. Examples & explanation are more specific. Geographical terms show understanding. Written language errors are minor.
Level 4	13-15	Well-structured, detailed explanation of internal and international migrations. Trends are well-linked to globalisation. Uses appropriate geographical terms and exemplification to show understanding. Written language errors are rare.

Question Number	Indicative content
10 (a)	<p>Wide range of records - Many UK citizens can conduct research simply using Census and Parish Registers, oral histories, family photographs, etc. However, families whose ancestors migrated to the UK may need additional sources - shipping records and overseas data sources. In all cases, records may be incomplete / inaccurate / illegible / lost / unreliable - hence need for range.</p> <p>People in Britain - if families have a history of migration, especially internationally, then a wider range of material - including overseas records - may be consulted as Fig 10 suggests. Other examples may be offered, e.g. Asian or Jewish diasporas.</p>

Level	Mark	Descriptor
Level 1	1-4	Little structure. Unselective use of Figure 10. Very basic assertions about need greater data. Geographical terminology is rarely used. There are frequent written language errors.
Level 2	5-7	Some structure. Some competent explanation of possible reason(s) why some people need to use different types of record. Some geographical terminology is used. There are some written language errors.
Level 3	8-10	Structured account. Sound explanation, based on Figure 10 and own ideas, that looks at a range of reasons or range of records used by families. Appropriate geographical terms show understanding. Written language errors are minor.

Question Number	Indicative content
10 (b)	<p>Population age structure - the mean age is increasing and UK population is ageing - inviting explanation of rising life expectancy and falling fertility (recent upward trend in crude birth rate may also be known and reasons why discussed).</p> <p>Social factors - expect some analysis of cultural shifts towards later age of marriage / less children etc. Hence falling fertility. Improvements in health, education, hygiene may be called social factors - or economic factors (if costs to government are argued).</p> <p>Economic factors - more money for NHS and infrastructure etc leads to rising life expectancy. Less demand for children to contribute to 'family wage' contributes to fall in fertility. May also explain economic push/pull resulting in youthful in migration.</p> <p><i>Max 10 for a good explanation that does not include or attempt to distinguish between social and economic factors.</i></p>

Level	Mark	Descriptor
Level 1	1-4	One or two simple assertions only e.g. people are living longer thanks to better health. Geographical terminology rarely used. Frequent written language errors.
Level 2	5-8	Some structure. A partial answer describing some recent UK population changes. Limited /generalised details/examples. Some geographical terminology used. Some written language errors.
Level 3	9-12	Structured account that attempts to explain changes in the UK's population and should have social / economic distinction at top of level. Examples & explanation are more specific. Geographical terms show understanding. Written language errors are minor.
Level 4	13-15	Well-structured, detailed explanation of social and economic changes and the impacts on age structure they have brought. Uses appropriate geographical terms and exemplification to show understanding. Written language errors are rare.

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