## Mark Scheme (Results) Summer 2010

**GCE** 

GCE Geography (6GE02) Paper 1



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Summer 2010 Publications Code

US023950

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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.

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## Additional Comments specific to 6GE02

- Always credit bullet points and similar lists, but remember if the list is the only response, then
  this is unlikely to be able to get into the top-band (L3 or L4) based on QWC shortcomings.
   However, bullets and lists as part of a response should permit access to the top band.
- Credit reference to the full investigative fieldwork and research process when referred to in any sections of the paper.
- Credit reference to GIS as a fieldwork and research tool in all questions.
- Credit reference to candidates own fieldwork and research across ALL questions
- Credit use of case studies and exemplar material where relevant.

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Question Number		Question
1(a) QWC (i, ii, iii)		
Series		Indicative content
		Extreme weather events are usually defined as being severe (hazardous / disastrous) or unexpected (i.e. outside the range of normal variation) Candidates are able to choose from a range of events, e.g. tropical cyclones, temperate storms, tornadoes, flooding, blizzards, heat waves, fires and drought. Characteristics may be linked to the intensity of the event (i.e. its magnitude), or duration and frequency of occurrence. Linked to this may be the vulnerability of people and the risks (economic / social) associated with particular events. Characteristics may also include ideas about scale of impacts, i.e. localised vs regional etc. Distribution will be controlled by particular event - expect reference to hurricanes (and concentrations at ITCZ etc), drought (Tropics?), tornado (interior USA etc) and wildfires (e.g. SW Australia, southern Europe). Smaller scale events, e.g. flooding may have very localised distribution factors (relief, topography, land use, management / diversion schemes).
Level	Mark	Descriptor
Level 1	1-4	Basic and generalised with one or two ideas only relating to chosen extreme weather. Likely does characteristics OR distribution, not both. Lacks structure and very limited use of geographical terminology. Considerable errors in language.
Level 2	5-7	Some ideas examined, but likely to be restricted either in range and or depth. Mentions both characteristics and distribution (could be a place). Some structure and some written language errors.
Level 3	8-10	Describes both characteristics and distribution of a particular event (may be unbalanced), providing depth and/or detail. Well structured; written language errors are rare.

Question		Question		
1(b) QWC (i				
Series		Indicative content		
		quantitative obserstation may be use	is the traditional recording vehicle rvations. Generally these are made ed in remote areas and can take cowho also refer to differences in accommoder.	e every 24hrs. Automated weather ntinuous measurements.
			Weather diary- Approach A	Automated log - Approach B
		Advantages	- easy and simple to use - limited specialist equipment used - nice to keep a written record as a hobby -inexpensive to get going - can assess visibility and cloud cover	- no operator errors as automated - live information - can be put onto internet and shared -easier to record / log / manipulate data as all digital; precise - no specialist knowledge required to record - larger range of weather variables can be recorded continuously - can be used in remote areas
		Disadvantages	- limited range of observations / data - forget to do it / can't be bothered -out of date by the time it is recorded (=no good for weather forecasting) -observer needs to know how to record correctly - blank space	- expensive; subject to vandalism - ability to go wrong (dead batteries etc) - precision over accuracy - sitting errors / lack of experience may lead to consistently unreliable data (no checks?) - Some measurements difficult to take using a machine, e.g. visibility
			ter than the other, although autom ot other reasonable comments.	ated station has arguably more
Level		Descriptor		
Level 1	1-4	Limited structure and very basic response using one or two lift-offs only. No real understanding of information in resource; unable to make comparisons. Considerable errors in language.		
Level 2	5-7	Some use of information in resource to make comparisons. Likely lacking either balance or range in advantages or disadvantages. Some structure and some written language errors. Some use of terminology.		
Level 3	8-10	A clear response with effective use of information in resource. Comments on both advantages and disadvantages for both approaches. Well structured response. Written language errors are rare.		

Questi Numbe		Question	
1(c) QWC (			
Series		nt	
			ripment can include a range of ideas, so allow a liberal interpretation of redit relevant ideas linked to both flood risk and management.
		Fieldwork (primary):  Research (secondary):	Flood Risk Management  GPS to locate particular features; geo-tagging digital photos; DVD to record landscape (e.g. property at risk) or to record interviews (risk perception)  Technology may help with storm simulation models and hardware models  Automated recording of weather, e.g. rainfall  Flow meters, clip boards, recording sheets.  DVD of interview/questionnaire with decision makers / stakeholders/local residents.  GPS can be used to give position of flood defences.  Photographs etc  Google Earth, Google maps etc; use contours etc to see heights. EA website for flood risk (GIS maps) Geo-demographic data from other websites. Digital maps can be used to plot results, e.g. locate images Digitised old maps for use with flood defences / management. May also use blogs / forums etc.
		Note - Balance i reflect this.	n spec indicates more of a research focus, so expect responses which
Level	Mark	Descriptor	
Level 1	1-4	Very limited range of fieldwork / research described. Fieldwork may not be appropriate a linked to flood risk management. No real mention of technology/equipment. Lacks structure. Considerable errors in language.	
Level 2	5-8	partially linked Expect limited u	e but with some statements about either fieldwork or research approaches to flood risk management. Likely to be unbalanced and lacking detail. use of geographical terminology. There are some written language errors. see study with no mention of fieldwork.
Level 3	9-12	management, bi /equipment. Soi	ge of fieldwork and/or research approaches linked to flood risk ut may only include reference to one or two items of technology me use of geographical terminology. Response shows some structure, language errors. Max 10 if only fieldwork or research.
Level 4	13- 15	Structured acco	unt which describes in detail how a range of technology/equipment have sist in fieldwork and research in to flood risk management. Shows good use fieldwork, with good use of terminology. Written language errors are rare.

Question Number		Question
2(a) QWC (i, ii	i, iii)	
Series		Indicative content
		There are a range of physical factors - Land & location: shape of coast, relief, aspect, presence or absence of beach, structural resistance of rocks (geology / lies of weakness etc), presence and condition of coastal ecosystems, influence of river sediments, fetch etc.  Weather and climate: wind strength and direction, rainfall (intensity & amount), storms and surges Sea: wave energy and direction, wave size and type, longshore drift and local currents, water depth Coastal environments can refer to features (both of erosion and deposition), e.g. cliffs, beaches, bays, spits etc as well as bigger ecosystems such as sand dunes and salt marshes. Credit examples taken from further afield and outside of UK. Some candidates may also refer to the influence of longer-term sea level change - isostatic and eustatic processes.  The best response may try and link factors or processes to features e.g. destructive waves creating steeper beach profiles. Many candidates may also introduce examples to further illustrate their response.  Note factors must be physical - but these may lead to a human environment - e.g. Port facilities, settlement etc. Credit these sensible ideas.
Level	Mark	Descriptor
Level 1	1-4	Basic and generalised with few ideas on physical factors. Lacks structure and very limited use of geographical terminology. Limited or no reference to a coastal environment. Considerable errors in language.
Level 2	5-7	Some structure. Likely to be lacking in either range or depth, but shows / implies some understanding of physical factors. 1 or more types of coastal environment included in answer. There are some written language errors.
Level 3	8-10	A clear response which refers to more than one type of coastal environment and the linked physical factors important in their development. Well structured response and written language errors are rare.

Question Number		Question			
2(b) QWC (iii)					
Series	_	Indicative content	i		
		Both are two standard examples of partially completed evaluation sheets. Although the candidates will have not seen these exact sheets, they are likely to have used something similar			
			Approach A (top)	Approach B (bottom)	
		Advantages	- relatively quick and easy to complete in the field - no specialist knowledge required - two sheets / sites can be relatively easily compared with each other (totals added up etc)	- uses photographs therefore visually more attractive and descriptive - has a numerical component to calculate cost, useful for CBA - since writing boxes are open ended allows more descriptive analysis	
		Disadvantages	- based on semi-qualitative observations, i.e. difficult to put a number to a feeling - no descriptors for mid points, i.e. '-1' therefore difficult to say what it actually is - no images to support description -no weighting of scores by importance -only considers short area of coast	- values / costs of sea defences change therefore data can be easily out-of date - only considers a limited range of impacts, no accounting for impacts on view etc - assumes observer knows how system works and is able to make sensible comments -only relatively short stretch identified - incomplete	
		•	ticularly better than the other, alth it appears less subjective. Accept o	nough the bottom has arguably more ther reasonable comments.	
Level	Mark	Descriptor			
Level 1	1-4	Limited structure and very basic response using one or two lift-offs only. No real understanding of information in resource; unable to make comparisons. Considerable errors in language.			
Level 2	5-7	Some use of information in resource to make comparisons. Likely lacking either balance or range in advantages or disadvantages. Some structure and some written language errors. Some use of terminology.			
Level 3	8-10	A clear response with effective use of information in resource. Comments on both advantages and disadvantages for both approaches. Well structured response. Written language errors are rare.			

Question	Number	Question
2(c) QWC (i, ii	i, iii)	
Series		Indicative content
		Technology/equipment can include a range of ideas, allow a liberal interpretation of the concept. Also credit responses which use technology in terms of data processing and presentation. Overlap of approaches for both flooding and erosion.
		Fieldwork (primary):  GPS to locate particular features / housing etc; geo-tagging digital photos; DVD to record landscape. Noise recording using a dB meter at different locations; Pollution recording (could be air / water / land), e.g. using different environmental probes Various coastal equipment types may be relevant, stone boards etc. Recording (audio or video + transcript) of interviews with people discussing changes. Spreadsheet can also help with data processing of information, e.g. from questionnaires  Research (secondary):  Google Earth, Google maps etc. Digital maps can be used to plot results, e.g. locate images. Can be used to get historic data, e.g. growth, pollution etc. Old photos and postcards may be held electronically / digitally. Blogs and other online research; electronic records of newspaper editorials / letters etc.
Level	Mark	Descriptor
Level 1	1-4	Very limited range of fieldwork / research described. Fieldwork may not be appropriate / linked to coasts. No real mention of technology/equipment. Lacks structure. Considerable errors in language.
Level 2	5-8	Descriptive style but with some statements about either fieldwork or research approaches partially linked to coastal flooding or erosion. Likely to be unbalanced and lacking detail. Expect limited use of geographical terminology. There are some written language errors.  Max 8 if just case study with no mention of fieldwork.
Level 3	9-12	Describes a range of fieldwork and/or research approaches linked to coastal flooding or erosion, but may only include reference to one or two items of technology /equipment. Some use of geographical terminology. Response shows some structure, limited written language errors. Max 10 if only fieldwork or research.
Level 4	13-15	Structured account which describes in detail how a range of technology/equipment have been used to assist in fieldwork and research in to coastal flooding or erosion. Shows good use of own / group fieldwork, with good use of terminology. Written language errors are rare.

Question Number		Question
3(a)	: :::\	
QWC (i, ii	1, 111)	Indicative content
3ei ies	1	
		<ul> <li>There are a number of observations of the data, including:</li> <li>Miles per person / yr generally increase with increasing rurality / smaller settlements</li> <li>Cars / vans become increasingly important as a proportion of travel with increasing rurality.</li> <li>Rail accounts for the largest relative proportion of travel in London, compared to other settlements. In all other areas it is much lower ~ 5-15%</li> <li>Other private shows the lowest frequency across all settlement types.</li> <li>Buses are most widely used in London.</li> <li>Reward candidates that use numerical data to support ideas.</li> <li>The reason for the increasing distances in more rural areas is linked to accessibility / availability of services and functions. In the rural area they are more dispersed hence people need to travel further. Car dominates the rural scene since public transport (mainly buses) is either infrequent, non-existent, not convenient or too costly.</li> <li>London is unusual with large numbers of rail passengers. The reason for this is the much wider availability of train and tube facilities.</li> </ul>
		Reward other valid reasons.
Level	Mark	Descriptor
Level 1	1-4	One or two basic items of data described from the resource - limited to simple lift-offs. Lacks structure and considerable errors in language.
Level 2	5-7	Some descriptive comments linked to resource including one or two ideas regarding transport type and / or frequency and settlement size. May use examples of data. Some structure; there are some written language errors.
Level 3	8-10	A clear response with use of resource to suggest valid ideas linking together data. Likely to suggest possible reasons. Well structured and expect use of specific items of data to support. Written language errors are rare.

Question	Number	Question
3(b)		
QWC (i, i	i, iii)	
Series		Indicative content
		Quality of life usually refers to the uneven distribution of opportunity in different places. The idea can have a wide range of interpretations, e.g. employment, education / training, access to credit etc. Can be at a range of scales from local / regional / national and international.
		Processes leading to variation in quality of life include: level of income, health deprivation, employment (seasonal / tourist etc), personal mobility, access to employment, access to services, barriers to housing (affordability of homes), physical environment, upbringing and background, culture, religion, resourcefulness / entrepreneurialism etc. Physical geography / access to basic resources may also be significant in some instances.
		When discussing processes, candidates are likely to refer to negative multiplier effect and downward spirals. Causes may be linked to decline in traditional industries (UK). People on lower incomes living in deprived areas often find themselves trapped in a web of deprivation. Poor living conditions closely linked with poor health etc.
		Note - can be URBAN or RURAL. Credit LEDC and MEDC contrasts.
Level	Mark	Descriptor
Level 1	1-4	Basic and generalised with few ideas on inequality / QoL. Lacks structure and very limited use of geographical terminology. Limited or no reference to a place. Considerable errors in language.
Level 2	5-7	Examines variation. Likely to be lacking in either range or depth. Some structure. There are some written language errors.
Level 3	8-10	Examines some reasons why there are variations in QoL. Well structured response which does more than one place. Written language errors are rare.

Question	Number	Question
3(c) QWC (i, ii, iii)		
Series	-	Indicative content
		Note this is focused on results and conclusions, but may also include elements of data presentation and analysis.
		Results and conclusions:  May provide a summary of the fieldwork and research data collected (e.g. patterns, trends etc) with reference to schemes investigated. May include evaluation and comments on reliability. Moves towards providing conclusions based on data.
		Expect a wide variety of ideas discussed, but limit credit to describing the end of the research / fieldwork process (not how it was done).  Credit responses may make links to previous data and therefore able to judge success. Must be urban.  Can still get to Level 3 if schemes or options are suggested within answer, rather than actual projects that have been implemented.
Level	Mark	Descriptor
Level 1	1-4	A limited description of the fieldwork/research undertaken. May not be linked to inequality. Lacks structure. Considerable errors in language.
Level 2	5-8	May be a description of fieldwork/research with some link to urban inequality. Likely to be unbalanced and lacking detail. Expect limited use of geographical terminology. There are some written language errors.  Max 8 if just case study with no mention of own research.
		A summary of results and/or conclusions from the candidates own fieldwork/research linked to a scheme/schemes. Some use of geographical terminology. Response shows some structure, limited written language errors.
Level 4	13-15	Structured account which summarises the results and/or conclusions of the candidates own fieldwork and research and comments on success of a scheme/schemes. Good use of terminology. Written language errors are rare.

Question	Number	Question
4(a)		
QWC (i, i	1, 111)	Indicative content
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		There is big variation across all cities: only London has similar extremes of low and high levels of deprivation.
		<ul> <li>Liverpool stands out as having 50% of very high levels of household deprivation making it by far the highest; this contrasts with Bristol which only has ~10%.</li> </ul>
		Most cities have larger frequencies of very high deprivation compared to very low deprivation (exceptions being Bristol and London).  The second
		There is arguably a N-S divide, with Bristol and London having lower frequencies of very high household deprivation.
		Reasons for the variations may be historic, e.g. loss of traditional industries in some northern cities, size of city (bigger cities may have greater disparities), population structure, influence of migration patterns (recent and historic). Note in the structure of the structur
		Biggest <i>need</i> in Liverpool by far (50%) high levels of deprivation; Birmingham, Manchester + Tyneside similar ranked 2 <sup>nd</sup> . Lowest in London + Bristol. Credit reference to data.
Level	Mark	Descriptor
Level 1	1-4	One or two basic items of data described from the resource, but no real ideas linking to deprivation / regeneration; limited to simple lift-offs. Lacks structure and considerable errors in language.
Level 2	5-7	A range of descriptive comments linked to resource including one or two ideas regarding deprivation and need to regenerate. Some structure; there are some written language errors.
Level 3	8-10	A clear response with good use of resource to suggest valid ideas linking together deprivation data + need for regeneration. Likely to suggest a possible reason(s). Well structured and written language errors are rare.

Question	Number	Question
4(b) QWC (i, i	i, iii)	
Series		Indicative content
		Rebranding can be used as a tool or catalyst to improve quality of places (economic, social and environmental) and there are a range of linked ideas here. Inward investment attracting other businesses etc and positive spirals. One of the issues with rebranding is to what extent schemes actually benefit all rural communities, especially those that are the most deprived or hidden.  Simple idea is that high levels of deprivation (or inequality) may mean that places are in need of rebranding, i.e. they become special priorities. Therefore there should be a strong linkage. Rural areas discussed could be wide variety of locations - obviously inaccessibility (including coastal) will feature highly.  High levels of deprivation + poverty may not equate with basis of rebranding. Process more likely to be driven by commercial opportunity / entrepreneurism - places that are highly accessible + close to large catchments may be highly prised.
Level	Mark	Descriptor
Level 1	1-4	Basic and generalised with few ideas on deprivation / rebranding. Lacks structure and very limited use of geographical terminology. Limited or no reference to a real place. Considerable errors in language.
Level 2	5-7	Some structure. Likely to be lacking in either range or depth, but shows / implies some understanding of deprivation and need for rebranding. There are some written language errors.
Level 3	8-10	A clear response which examines possible link between deprivation and rebranding. Considers 'need'. Likely to exemplify. Well structured and balanced response Written language errors are rare.

Question	Number	Question
4(c)	: :::\	
QWC (i, i	1, 111)	Indicative content
Series		Indicative content
		Note this is focused on results and conclusions, but may also include elements of data presentation and analysis.
		Results and conclusions:  May provide a summary of the fieldwork and research data collected (e.g. patterns, trends etc) with reference to schemes investigated. May include evaluation and comments on reliability. Moves towards providing conclusions based on data.
		Expect a wide variety of ideas discussed, but limit credit to describing the end of the research / fieldwork process ( <i>not how it was done</i> ).  Credit responses may make links to previous data and therefore able to judge success. Must be urban.  Can still get to Level 3 if schemes or options are suggested within answer, rather than actual projects that have been implemented.
Level	Mark	Descriptor
Level 1	1-4	A limited description of the fieldwork/research undertaken. May not be linked to rebranding. Lacks structure. Considerable errors in language.
Level 2	5-8	May be a description of fieldwork/research with some link to urban rebranding. Likely to be unbalanced and lacking detail. Expect limited use of geographical terminology. There are some written language errors.  Max 8 if just case study with no mention of own research.
Level 3	9-12	A summary of results and/or conclusions from the candidates own fieldwork/research linked to a scheme/schemes. Some use of geographical terminology. Response shows some structure, limited written language errors.
Level 4	13-15	Structured account which summarises the results and/or conclusions of the candidates own fieldwork and research and comments on success of a scheme/schemes. Good use of terminology. Written language errors are rare.

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