

Mark Scheme (Results)

June 2011

GCE Geography 6GE02 Geographical Investigations Edexcel is one of the leading examining and awarding bodies in the UK and throughout the world. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers.

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You can also telephone 0844 372 2185 to speak to a member of our subject advisor team.

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ALWAYS LEARNING PEARSON

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 <u>meaning</u> 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.

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	
Series		 Data reveals several patterns (or distributions / characteristics of extreme weather): Highest risks in NW Italy. Highest risk from snow + ice (x6). Some risk from thunderstorms (x2), rain (x2) and wind (x1). Only one occurrence of 'very dangerous'; 5 x 'dangerous' and 4 x 'potentially dangerous'. Southern + NE flank of Italy not generally at risk / no weather risk. Credit a description rather than explanation. Also provide some credit to candidates who may reflect on the resolution of the data in terms of its accuracy / ability to reveal patterns. 	
Level	Mark	Descriptor	
Level 1	1-4	Limited structure and very basic response using one or two lift-offs only, rather than any mention of patterns or distribution. Vague / may include errors. Considerable errors in language.	
Level 5-7 2		Some use of data to comment on either type (icons) or level (colours) of risk, but may lack balance. Patterns / distribution may be mentioned. Some structure, and some written language errors. Some use of terminology.	
Level 8-10 3		A clear understanding of, and effective use of, a range of data from map. Comments on both level and type; patterns also included. Well structured response. Written language errors are rare. Good use of terminology.	

Question Number		Question		
1(b) QWC (i, ii, iii)				
Series		Indicative content		
		Various techniques could be used to investigate flood risk:		
		Fieldwork (primary): Basic land use map. Flooding evidence can come from qualitative sources, e.g. historic / eye witness accounts. Use of interviews / focus groups. Evidence of levels may be anecdotal, i.e. come from marks on walls, 'strand-lines' etc. Also could measure river discharge; bankfull measurements, infiltration etc. Also credit primary weather data collection (and flood risk). Various flood risk maps.		
		Research (secondary): GIS EA maps; also flood risk maps for insurance companies; gauging station data Historic newspaper cuttings / reports and other documentary evidence e.g. newscasts, blogs, YouTube. National Rivers Flow Archive. The best responses will provide evidence of specific sources, e.g. specialist weather / flood websites detailed etc, rather than 'the internet'.		
		Credit a focus on design i.e. locations for collecting data, sampling approaches etc. Some work on recording the weather etc may also be appropriate and should be given credit. For Level 4, expect fieldwork and research to be clearly linked to a study location.		
Level	Mark	Descriptor		
Level 1	1-4	Very limited range of fieldwork / research described. Fieldwork will probably not be appropriate / linked to flood risk. Lacks structure. Considerable errors in language.		
Level 2	5-8	Some statements about fieldwork / research approaches vaguely linked to some aspect of flooding. Lacks focus on the question / less relevant techniques. Likely to be unbalanced and lacking detail. Expect limited use of geographical terminology. There are some written language errors.		
Level 3	9-12	Describes some fieldwork and /or research approaches linked to flooding and partially flood risk, but may lack balance. 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 a balanced range of flood risk fieldwork and research techniques in detail, with good use of terminology. Written language errors are rare.		

Question		Question			
Number					
1(c) QWC (i, ii,	iii)				
Series		Indicative content			
This is a big topic, so expect a range of strategies, including sust options. May be split short term vs longer term. Managing impact likely to involve a mixture of improved water h distribution techniques, together with water conservation measure or forced via payment). Sustainable approaches are likely to presimprove the quality / nature of the existing water resource. A range of countries and regions can be used to illustrate solution Australia, Cyprus, China, parts of Africa etc; also UK, e.g. SE En Farming is a big user of water so modification of crops and pract			mproved water harvesting and inservation measures (voluntary es are likely to protect or er resource. b illustrate solutions, e.g. USA, so UK, e.g. SE England.		
		form part of the	Developed, e.g. UK	Developing, e.g. parts of	
		New supplies	Seek out new suppliesissue o	Africa of exploitation	
		Reducing demand	Hosepipe bans etc, paying for consumption (water meters) & public campaigns, education etc		
		Water collection and	- abstract water from aquifers water from reservoirs in	 use bunds, line of stones, etc fit pumps, repair or dig new wells 	
		distribution	Wales - repair leaking infrastructure - government or business decisions	- communally owned/built facilities - help from aid and NGOs	
		Adapting farming techniques	reduce irrigation useshift to Mediterraneancropsuse gene technology	- change from nomads to cultivators - use of drought resistant crops - use of intermediate technology	
		Recycling and conserving water	recycle more river wateruse more 'grey' waterreduce water footprint(meters)	- collect and store rain water underground until dry season - separate 'clean' and reusable water	
		down / governm	may contrast types of solution, on ment or choose to contrast locati rategies and ideas.		
	ark	Descriptor			
Level 1-4	4	Basic and generalised with one or two ideas only relating to 'more supply' or 'use less'. Very weak or no exemplification. Lacks structure and very limited use of geographical terminology. Considerable errors in language.			

Level 2	5-7	Some strategies explained, but lacks range or depth. Some exemplification is present but may be generalised and / or not very well selected. Some structure and some written language errors.	
Level 3	8-10	Explanation of a range of strategies supported by examples with some detail, linked to managing drought. Well structured and balanced response. Written language errors are rare.	

Question Number		Question	
2(a) QWC (i,	ii, iii)		
Series		Indicative content	
		Photo 2a: Milford Haven Large natural harbour / sheltered position Flat land = easier construction of infrastructure Rural/not built up (limited NIMBYism) Close to industry which may use gas. Coastline appears stable; lack of erosion. Photo 2b: Miami Long flat beaches / golden sands Ideal location for hotels due to flat land / close to beach. River/lagoon is ideal for yachts/swimming/ water front properties. Large urban hinterland (Miami) can be seen in distance = large possible catchment for the coast. Trading opportunities. Attractive environment for development. Warm coastal seas / climate = ideal tourist area Credit other sensible suggestions. No knowledge of Milford Haven or Miami is assumed. Response needs to focus on the 2 images shown, but give credit for other exemplification if relevant. Credit the factors that made the two areas initially attractive for development as well as current factors.	
Level	Mark	Descriptor	
Level 1	1-4	Basic response only with limited range / detail. Restricted to simple lift-offs from the images; no factors. May be one image only. No real understanding of resource. Considerable errors in language.	
Level 2	5-7	Uses resource to identify some factors. May be unbalanced. Some focus on coastal development. Expect some written language errors, but generally satisfactory structure.	
Level 3	8-10	A clear response with effective use of both images. Identifies a range of factors with some detail and focus on development. Well structured good use of correct terminology. Written language errors are rare.	

Question		Question	
Number			
2(b) QWC (i, ii, iii)			
Series		Indicative content	
		Pressures will overlap with impacts, e.g. social (e.g. antisocial behaviour, noise), economic (over-reliance on tourism income) and environmental (e.g. litter, pollution etc). For the vast number of students, however, fieldwork in coastal areas could focus on a range of themes such as beach pollution, trampling, litter, visitor surveys / activity patterns, ecosystem condition, patterns of growth etc. All of these are relevant and should be rewarded. Coastal defences could add pressure also, such as one area's defences affecting another downdrift.	
		Fieldwork (primary): Field sketches, video / dvd, focus groups and extended interviews with community groups, resort managers, local authorities etc, activity map. Also: footpath analysis, litter surveys, graffiti surveys, biodiversity surveys (using plant keys etc) or assessment of ecological value, conflict matrix, landscape assessment sheet etc. Research (secondary): A range of historical documents may support impacts, e.g. newspaper extracts, postcards, local reports etc. Historic census for population increases. Old maps and postcards to see growth. Also GIS mapping using Google Earth to provide digitised backdrops. Water quality surveys from local	
		authority / Blue Flag Award etc. Provide credit for possible reference to sampling strategies, e.g. systematic and stratified, number of people interviewed etc; also some candidates may have used a pilot survey, e.g. to format questionnaires. Reward fieldwork and research which seems to be focused on pressures, rather than general coastal activities, e.g. beach profiles etc. For Level 4, expect fieldwork and research to be clearly linked to a study location.	
Level	Mark	Descriptor	
Level 1	1-4	Very limited range of fieldwork / research described. Fieldwork will probably not be appropriate / linked to pressure / human activities. Lacks structure. Considerable errors in language.	
Level 2	Some statements about fieldwork / research vaguely linked to press / human activities. A description that lacks focus on the question / l relevant techniques. Likely to be unbalanced and lacking detail. Exp limited use of geographical terminology. There are some written language errors.		
Level 3	9-12 Describes some fieldwork and/or research approaches linked to pressures and human activities, but may lack balance. 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 a balanced range of fieldwork and research techniques in detail linked to coastal pressures and human activities, with good use of terminology. Written language errors are rare.

Question Number		Question
2(c) QWC (i, ii, iii)		
Series	_	Indicative content
		Coastal development may take various forms including urban expansion, new buildings / facilities, or increasing economic importance. Development is likely also to be associated with more tourists and greater population numbers. There may be a number of environmental costs.
		 Land-take at coastal margin Land / coastal area degradation Possible marine pollution affecting beach / corals etc. Ecosystem damage / reduction in ecosystem quality (especially for 'high value' environments) Loss of biodiversity / specialist habitats Visual impact / loss of aesthetic quality Increasing traffic / transport congestion + pollution Problems of fresh water supplies, e.g. Spanish Costas Impacts of coastal defences e.g. interference with longshore drift.
		Examples can be interpreted as either locations (i.e. Dibden Bay, Southampton water etc, plus a host of examples from overseas) or examples could be seen as different types of environmental costs.
Level	Mark	Descriptor
Level 1		
Level 2	-	
Level 3		

Question		Question	
Number 3(a)			
QWC (i, i	ii, iii)		
Series		Indicative content	
		Credit should be given for both a description and attempts at explanation as well as comments on the patterns revealed by the two maps. Carlisle / Cumbria /Scottish Border Much lower density of all facility types. Only concentration is Carlisle (urban area) None in remoter rural areas (fewer settlements or roads). Fewer sports halls compared to grass pitches, which are cheaper) Wide separation of points (lower pop density, rural areas). Follow transport routes to some extent (access) Follow transport routes to some extent (access) Accept sensible descriptions / reasons as part of comments on the two maps, which may include use of own fieldwork or case study material. Unequal provision could be within one area, or between areas.	
Level	Mark	Descriptor	
Level 1	1-4	One or two basic items of data described from the resource, but limited to simple description. Lacks structure and considerable errors in language.	
Level 2	5-7	A range of comments linked to the resource including one or two statements about unequal provision. Considers both maps, or one in detail. Some structure; there are some written language errors.	
Level 3	8-10	A clear response with good use of both maps which makes reference to unequal provision. Well structured and expect use of specific places on the maps. Written language errors are rare.	

Question Number		Question		
3(b)				
QWC (i, i	ii, iii)			
Series		Indicative content		
		There are a range of possibilities here – they may include:		
Collect Credit both fieldwork and research ideas here Fieldwork: Accessibility audit of the urban environments, focusing on key groups, i.e. w users (using photos to support and describe) of 'dial a ride', zones of exclusion etc. Could culminate in a local town accessibility map. which examine the geography of access in te public transport, parking etc. Questionnaires interviews / oral histories – how and why gro people are excluded or feel inequality. EQ su may also feature. May also be surveys of crime, graffiti or 24hr ideas, e.g. land-use maps linked to exclusion Research: Use of internet blogs, forums etc the 'hidden' or excluded, e.g. skateboarders frequently do not have a voice). Research ac employment, education, higher-order shoppi Creation of personal / group isochrone maps, access to services.		Collect Credit both fieldwork and research ideas here, e.g. Fieldwork: Accessibility audit of the urban environments, focusing on key groups, i.e. wheelchair users (using photos to support and describe), location of 'dial a ride', zones of exclusion etc. Could culminate in a local town accessibility map. Maps which examine the geography of access in terms of public transport, parking etc. Questionnaires / interviews / oral histories – how and why groups of people are excluded or feel inequality. EQ surveys may also feature. May also be surveys of crime, graffiti or 24hr city ideas, e.g. land-use maps linked to exclusion. Research: Use of internet blogs, forums etc to find the 'hidden' or excluded, e.g. skateboarders (who frequently do not have a voice). Research access to employment, education, higher-order shopping. Creation of personal / group isochrone maps, e.g. for access to services. Researching 'geo-demographic' data, e.g. neighbourhood profiles, census etc.		
		Present: Choice will be largely influenced by data type, e.g. quantitative lends itself to graphs such as the ubiquitous pies, line, scatter, histogram, whereas qualitative analysis may use more descriptive narrative techniques, e.g. to describe a particular photograph illustrating change. Data can be spatially represented, e.g. mini-pictures of evidence of changes in village on a large scale base map of the study area. Note – urban or rural.		
		 For Level 4, expect fieldwork and research to be clearly linked to a study location. For Level 4, expect some mention of both collection and presentation. 		
Level	Mark	Descriptor		
Level 1	1-4	Very limited range of fieldwork / research described poorly linked to inequality. Lacks structure. Considerable errors in language.		
Level 2	5-8	Describes some fieldwork / research and possibly presentation vaguely linked to inequality. A description that lacks focus on the question. Unbalanced and lacking detail. Limited use of geographical terminology. There are some written language errors.		

Level 3	9-12	Describes some collection / presentation of fieldwork and/or research linked to inequalities; response may lack balance / depth. 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 a balanced range of fieldwork and research techniques in detail linked to inequality, including how the data was both collected and presented, with good use of terminology. Written language errors are rare.

Question Number		Question		
3(c) QWC (i, i	i, iii)			
Series		Indicative content		
		Management of inequalities may be depending on examples chosen, the separate of the depending	•	
		All management requires resources Accept any reasonable ideas from o Note areas could be rural and urbai subtle differences / issues.		
Level	Mark	Descriptor		
Level 1	1-4	Basic and generalised with few ideas on features of inequality. Lacks structure and very limited use of geographical terminology. Very limited or no reference to examples. Considerable errors in language.		
Level 2	5-7	Some understanding of problems and management of inequality. Some structure. Likely to be lacking in either range or depth, some use of examples. There are some written language errors.		
Level 3	8-10	A clear response which shows an understanding of the difficulties of managing inequality. Well structured and balanced response which uses example(s) effectively. Written language errors are rare.		

Question Number		Question				
4(a) QWC (i, ii, iii)						
Series		Indicative content				
		some description	vs a range of rural rebranding strategies. Expect of strategies combined with explanation of how they reas rebrand. Some may contribute / be more nan others: Can be large scale, drawing a large number of visitors to an area. Important in terms of linked businesses, rural employment, perhaps development of improved infrastructure. Often the			
		Strategy B: Renting buildings	focus of rural rebranding. Low key and small scale, limited impact on areas. May encourage diversification of rural economy. Can create a 'tidier' environment. Used in combination with other approaches.			
		Strategy C: Adding value locally	Reliant on consumer conscience. Tends to be pretty localised and small scale, but may reach wider through internet marketing etc. May be of increasing significance as the buy local movement gains momentum.			
		Strategy D: Env farm schemes	An increasingly important aspect of farming to make it viable. Could be fairly small scale and localised and used in combination with another strategy.			
		Note answers may focus on the economic regeneration as rebranding and / or the reimaging of rural areas. Credit any other sensible ideas, which may include use of fieldwork or case study material. Note candidates are required to choose 2 strategies.				
Level	Mark	Descriptor				
Level 1	1-4	One or two basic items of data described from the resource, but limited to simple lift-offs. May describe one / two strategies. Lacks structure and considerable errors in language.				
Level 2	5-7	Describes strategies used to rebrand rural areas with some suggestions as to how the strategies might help rebrand the rural area. Some structure; there are some written language errors. Max 6 one strategy only.				
Level 3	8-10	Detailed comments on two strategies; suggests reasons for how the strategies contribute to rural rebranding. Well structured good use of geographical terminology. Written language errors are rare.				

Question		Question				
Number 4 (b)						
QWC (i, i	i, iii)					
Series	· · · ·	Indicative content				
		There are a range of possibilities here – they may include:				
		There are a range of possibilities here – they may include: Collect Credit both fieldwork and research ideas here, e.g. Fieldwork: Visit location(s), collect qualitative and quantitative evidence, e.g. oral histories of change, perception of reputation, looking for evidence of change in functional hierarchy etc. Looking for evidence of improvements to 'place image', 'product image' and imaging urban people. Opportunity at busy rural or urban rebranded locations to determine sphere of influence etc (use of questionnaire?). Lots of photographic and video evidence expected, e.g. architectural icons / design features. Especially important as part of urban branding process. Research: Photos / postcards illustrating change, changes in employment, visitor profile and published catchment survey data etc. Urban areas e.g. crime statistics, visitor numbers / footfall patterns. Data from town / city centre management. Also use of geo-demographic data e.g. postcode checkers on the internnet etc. Present: Choice will be largely influenced by data type, e.g. quantitative lends itself to graphs such as the ubiquitous pies, line, scatter, histogram, whereas qualitative analysis may use more descriptive narrative techniques, e.g. to describe a particular photograph illustrating change through the process of rebranding. Data can be spatially represented, e.g. mini-pictures of evidence of changes in village on a large scale base map of the study area.				
		 Note – urban or rural. For Level 4, expect fieldwork and research to be clearly linked to a study location. For Level 4, expect some mention of both collection and presentation. 				
Level	Mark	Descriptor				
Level 1	1-4	Very limited range of fieldwork / research described poorly linked to rebranding. Lacks structure. Considerable errors in language.				
Level 2	5-8	Describes some fieldwork / research and possibly presentation vaguely linked to rebranding. A description that lacks focus on the question. Unbalanced and lacking detail. Limited use of geographical terminology. There are some written language errors.				

Level 3	9-12	Describes some collection / presentation of fieldwork and/or research linked to rebranding; response may lack balance / depth. 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 a balanced range of fieldwork and research techniques in detail linked to rebranding, including how the data was both collected and presented, with good use of terminology. Written language errors are rare.

Question Number		Question				
4(c) QWC (i, ii, iii)						
Series		Indicative content				
		 Indicative content Success may be interpreted a number of ways, socially, economically, environmentally or politically. There may be a number of reasons as to why projects may are not always fully successful: Value for money in terms of costs -v - benefits of the strategy. Failure to deliver promised outcomes / legacy e.g. Sydney's 'green games' or Athens legacy. Issues of legacy for big infrastructure projects. Might argue that it is too early to judge in case of London 2012. Social benefits - failure to reach all people within an area / region e.g. Docklands impact on local people. Who benefits e.g. jobs going to migrants rather than locals. Schemes designed to bring environmental benefits but actually bring problems of visitor numbers / congestion etc. Flagship / landmarks projects which fail to act as a catalyst for additional benefits economic regeneration. Money runs out / put on hold due to economic downturn. Lack of customers / market e.g. Earth Centre in Doncaster. Failure to attract e.g. rural areas with a 'brand image' that does not attract visitors. One areas success leads to another to decline e.g. new shopping centres versus traditional high streets. Expect examples to include major sporting events, e.g. Barcelona, Sydney and London 2012 etc. Also rural projects, Eden Project, Jamie's 15 etc. 				
Level	Mark	Descriptor				
Level 1	1-4	Basic and generalised; descriptive of schemes. Lacks structure and very limited use of geographical terminology. Limited or no reference to examples. Considerable errors in language.				
Level 2	5-7	Some description of schemes and understanding of their success or lack of it. Expect some weaknesses of schemes at top of band. Some structure. Likely to be lacking in either range or depth, some use of examples. There are some written language errors.				
Level 3	8-10	Well structured response with a range of reasons for lack of success which uses specific, located, rebranding strategies effectively. Written language errors are rare.				

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