

Mark Scheme (Results)

Summer 2012

GCE Geography Geographical Investigations 6GE02



ALWAYS LEARNING

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications come from Pearson, the world's leading learning company. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information, please visit our website at <u>www.edexcel.com</u>.

Our website subject pages hold useful resources, support material and live feeds from our subject advisors giving you access to a portal of information. If you have any subject specific questions about this specification that require the help of a subject specialist, you may find our Ask The Expert email service helpful.

www.edexcel.com/contactus

Pearson: helping people progress, everywhere

Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk

Summer 2012 Publications Code US032265 All the material in this publication is copyright © Pearson Education Ltd 2012



ALWAYS LEARNING

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.

PEARSON

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.

Question	Number	Question
1(a) QWC (i, i	i, iii)	
Series		Indicative content
		 The diagram shows variability in types of weather extremes. It can be applied to a range of types of weather including rainfall (intensity / duration), wind speed etc. Title makes reference to precipitation and temperature. It may help classify in that: Most weather extremes are within the normal range of variation (although there is lots of variability here). May link to magnitude. On occasion weather can become noteworthy. Extreme and very extreme events are very rare, but do happen over an extended period of recording. The diagram indicates that noteworthy, extreme and very extreme events are either potentially hazardous or hazardous. We can assume risk of danger to life or economic consequences. In many respects the diagram is useful as it tells us things about the frequency and duration of events, i.e. very extreme events are short lived and very infrequent. However some candidates may criticise the diagram for only having relative scales on both axes. Perhaps the reader would also want a bit more explanation on 'noteworthy', 'extreme' etc. Note: 'examples' can be interpreted as: (i) examples of weather types (e.g. flooding, heatwave etc), (ii) events or incidents, and (iii) places.
Level	Mark	Descriptor
Level 1	1-4	Limited structure and very basic response using one or two lift-offs only. No mention of how resource may assist in understanding extreme weather. Considerable errors in language.
Level 2	5-7	Some aspects of the diagram examined. May refer categories and uses at least one example to develop answer, perhaps showing partial linkage to idea of helping to understand. Some structure, and some written language errors. Some use of terminology.
Level 3	8-10	A response where there is good understanding of the resource. May mention ideas linked to frequency and variability. Considers how it might 'help' and uses examples (at least 2 types). Well structured; written language errors are rare; uses terminology well.

Question Number		Question		
1(b) QWC (i, ii, iii)				
Series		Indicative content		
		 over different associated with take a mixture pictures. Expect many caranticyclones et Some candidate the use of a rate also be pooled Fieldwork 	 veather diary can take a variety of forms and be conducted amounts of time, e.g. few days to look at changes in a depression, or over 1 term / even a year. The dairy can of forms, e.g. e-diary (on web), written notes, video / andidates to record changes in air masses, weather systems, i.e. May be part of planning idea. es may also recognise that the most reliable records involve nge of techniques and research opportunities. Data could as a group. Use of various local weather instruments, e.g. anemometer, thermometer, whirling psychrometer, rain 	
		(primary): May be linked to 'completing / undertaking'	gauges etc. May use 'apps', or use school automated weather station, e.g. Davis. Also more qualitative observations, e.g. changes in cloud cover, what it 'feels' like, whether the heating is required, seeing starts at night. Time when measurements take, how, use of group and or individual data etc.	
		Research (secondary): May be linked to 'planning'	Use of various sources to get a picture of weather (in near future 5 day forecast) - websites, newspapers, blogs etc. The best responses will provide detailed evidence of specific sources, e.g. specialist weather websites etc. May use GIS to help select suitable locations / ensure fair testing etc. Links to local factors, topography, buildings, vegetation etc.	
		Note: Focus is on both planning and delivery / completion . Credit reference to fair testing, repeat sampling / surveying etc to try and increase accuracy and / or reliability of result.		
Level	Mark	Descriptor		
Level 1	1-4	vaguely linked to v	eldwork / research described. Fieldwork will be only veather diary and some may be inappropriate. Reference to 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 some aspect to a weather diary. A description that lacks focus on the question / less relevant techniques. Expect limited use of geographical terminology. There are some written language errors.		
Level 3	9-12	linked to the recor Some use of geogra limited written lar Max 10 if only fiel	dwork or research.	
Level 4	13-15	Structured account which describes a balanced range of appropriate weather diary fieldwork and research techniques. Also includes details about the idea of planning. Good use of terminology. Written language errors are rare.		

Question	Number	Question
1(c) QWC (i, ii	i, 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(and or heavy rainfall), blizzards, heat waves, fires and drought. Causes will be particular to the type of event, but expect some natural / physical factors, e.g. threshold temperatures, levels of precipitation, topography, antecedent conditions etc, plus linked comments possibly relating to patterns and spatial distributions. The role of people may also be significant, e.g. modification of catchment in relation to flooding etc. Note: accept 'depression' if clearly linked to idea of tropical storm OR extreme mid latitude / extra tropical event. Otherwise Max L1.
Level	Mark	Descriptor
Level 1	1-4	Basic and generalised with one or two descriptive ideas only relating to the chosen extreme weather. Very little, if any, on causes. Lacks structure and very limited use of geographical terminology. Considerable errors in language.
Level 2	5-7	Some causes described, but likely in be restricted either in range and or depth. Partially linked to an appropriate extreme weather event / type. Some structure and some written language errors.
Level 3	8-10	A response where some range of causes are discussed providing depth and / or detail. Clearly linked to an appropriate extreme weather event / type. Well structured response. Written language errors are rare.

Question	Number	Question
2(a)		
QWC (i, ii	i, iii)	
Series		Indicative content
		The diagram / model shows that there can be different responses and options with regard to coastal management depending on the value of the land. It indicates that where the value of coastal land is less than the cost of protecting it, the communities and people living there will have to accept 'do nothing' and 'managed retreat'. Consequently these places are likely to be at increased risk from coastal storms, cliff collapse, sea level rise etc. Coastal realignment / do nothing is of particular concern to people in areas with rapid coastal retreat, e.g. Yorkshire coast.
		Where land values are higher than the cost of protection, the diagram indicates that the coast will (or should) be protected, i.e. 'hold the line' or perhaps, more unusually 'advance the line'. 'Value' can refer to value from tourism revenue, ecosystem quality / biodiversity or perhaps if coastline is valuable because of some strategic importance, e.g. nuclear power station, tropical storm buffer zone etc.
		The diagram does generally help to understand the relationship , but may not hold true for all locations. Therefore it more often than not does help to explain some coastal management choices in some areas. There will of course be many exceptions and many examples, however, when this is not the case. Students may also argue that the diagram is too simplistic / irrelevant etc. Also many SMPs use large-scale integrated approaches which again will mean the diagram may not always be relevant.
		Credit students who exemplify through location detail and data about the value of land, costs of schemes etc.
Level	Mark	Descriptor
Level 1	1-4	Limited structure and very basic response using one or two lift-offs only. No Linkage to idea of helping to understand choices or options. Examples very weakly developed or wholly absent. Considerable errors in language.
Level 2	5-7	Some aspects of the diagram examined. May refer categories / options and uses at least one example / data to develop answer. Some structure, and some written language errors. Some use of terminology.
Level 3	8-10	A response where there is good understanding of the resource and mentions ideas linked to both cost and value. In some way considers how it might 'help' and uses examples with range and / or depth. Well structured; written language errors are rare; uses terminology.

Question Number		Question		
2(b) QWC (i, ii, iii)				
Series		Indicative content		
		There are a range include:	of fieldwork and research opportunities - expect these to	
		Fieldwork (primary):	Measurement / evaluation of existing defences, e.g. use of field sketch, video, digital pictures, use of bi-polar sheet; speaking to residents and visitors (questionnaires / structured interviews / oral histories). Use of video or transcripts to record findings (could be group approach). Rates of coastal retreat can be sometimes calculated in the field from known reference points. Some candidates may have also done cliff erosion / stability surveys. Cost- benefit-analysis could also feature.	
			Historic maps to illustrate change in position of coast / coastal features, e.g. <u>www.old-maps.co.uk</u> ; also local newspapers, blogs / forums etc. Old photographs and post cards may be a useful source (again could be internet sourced). Possible use of GIS / electronic maps to illustrate changes. possible reference to sampling strategies, e.g. systematic	
		and stratified, no of people interviewed etc; also some candidates may have used a pilot survey, e.g. to format questionnaires.In reality difficult to measure schemes - credit any acknowledgment that results may be partial and tentative; based on more subjective observations.		
			come from a variety of sources to build up a more complete difficult will be an investigation of the temporal dimension	
Level	Mark	Descriptor		
Level 1	1-4	5	ieldwork / research described. Fieldwork will be probably e / linked to coastal management. Lacks structure. rs in language.	
Level 2	5-8	Descriptive style but with some statements about either fieldwork or research approaches vaguely linked to some aspect of coastal management. A description that 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 generally appropriate fieldwork and/or research approaches linked to coastal management and / or scheme(s). 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 coastal fieldwork and research techniques well linked to different management schemes. Good use of terminology. Written language errors are rare.		

Question	Number	Question	
2(c) QWC (i, ii	i, iii)		
Series		Indicative content	
		Coastal development may give rise to costs. Some of these can be reasonab and should be credited, if appropriate include: • New port developments, refine activities as well as coastal def	ly associated with environmental costs . Coastal development examples could eries and revenues from associated fences. seaside resorts revenues from tourism,
		 br & Guil 2010), also beach? corals etc, cleanup costs Cost of addressing problems of fresh water supplies, e.g. Spanish Costas Ecosystem damage / reduction in ecosystem quality (especially for 'high value' environments) Loss of biodiversity / specialist habitats Visual impact / loss of aesthetic quality - drop in house prices Increasing traffic / transport congestion + pollution 	 development of associated support services. There may be other knock-on or multiplier effects, e.g. tourism New transport links and infrastructure New (affordable) housing may provide benefits to particular groups
1	A	benefits or place details.	or development, anterent costs /
Level	Mark	Descriptor	and using one or two basis ideas asly
Level 1	1-4	Limited structure and very basic respo Costs/benefits barely covered (if at al exemplification. Considerable errors in language.	l). Likely very brief with little or no
Level 2	5-7	and some written language errors. Son	n either range or detail. Some structure, ne use of terminology.
Level 3	8-10		

Question	Number	Question
3(a) QWC (i, ii	i, iii)	
Series		Indicative content
		 Based on the map, it seems that where you live will largely determine your chances of educational success in Sheffield. Clearly there is a complex pattern of geography here. If you have a degree, you are more likely to be able to afford to live in a 'smarter street' than someone without any GCSEs. The map shows: Overall, clear divisions between qualified to degree level and not qualified. Most qualified in Sheffield Hallam (south west of the city centre). Least qualified in Brightside (north east of centre) and also the eastern side at Attercliffe. There are many other patterns that could be discussed. Expect candidates to perhaps refer to opportunity and cycle / spiral of decline. Low educational achievement may also be due to nature of family, opportunity and environment as well as other linked factors such as ethnicity, peer aspirations etc. Filtering and gentrification could also be relevant processes leading to division and inequality. Availability of good and less-good schools (or independents / fee-paying etc) within different areas is perhaps another factor. Credit own knowledge and understanding of inequality applied to the resource.
Level	Mark	Descriptor
Level 1	1-4	Limited structure and very basic response using one or two descriptive lift-offs from the resource. Reasons likely to be wholly absent or not-feasible. Considerable errors in language.
Level 2	5-7	Some aspects of the map examined. May refer categories and / or places and likely uses some data to develop answer. Reasons provided but may be brief. Some structure, and some written language errors. Some use of terminology.
Level 3	8-10	A response where there is good understanding of the resource. Refers to a number of specific places from the map with supporting data. Considers reasons in some depth and detail. Well structured; written language errors are rare; uses terminology.

Question Number		Question
3(b)		
QWC (i, ii, iii)		
Series		Indicative content
		Marginalisation (i.e. being 'on the edge') is strongly linked to deprivation. This usually refers to the lack of something, compared to a national or international average. 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.
		Factors (processes) leading to marginalisation include: level of income, health inequalities, employment (seasonal / tourist etc), personal mobility, access to employment, access to services (including technology and fast broadband), 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 factors, candidates may refer to negative multiplier effect and downward spirals. These factors and processes 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.
		Groups can also have a wide interpretation: local people, rural vs urban, poor vs rich, elderly, ethnic and religious minorities, children etc. Deprivation may create marginalisation 'hotspots' only affecting certain groups. Sometimes deprivation is also hidden.
		Note - can be urban or rural (but should not be both). Credit appropriate examples from outside of UK.
Level	Mark	Descriptor
Level 1	1-4	Basic and generalised with very few ideas on marginalisation or groups. Lacks structure and very limited use of geographical terminology. Very limited or no reference to examples. Considerable errors in language.
Level 2	5-7	Uses at least one example to support response. Some structure. Likely to be lacking in either range or depth, but shows some understanding of factors causing marginalisation. Idea of groups may not be well developed. There are some written language errors.
Level 3	8-10	A clear response which shows understanding of factors leading to marginalisation. Well structured and balanced response which deals well with both examples and groups. Written language errors are rare.

clude:	
, ide', own is of d why d ity ys be	
' or have order aps, hood or the	
nt that	
/ not _acks	
Descriptive style but with some statements about either fieldwork or research approaches vaguely linked to some aspect inequality. A description that lacks focus on the question / less relevant techniques. Idea of patterns is only just evident. Expect limited use of geographical terminology. There are some written language errors.	
Describes some fieldwork and/or research approaches linked to the recording of a patterns of inequality, but detail may be absent. Some use of geographical terminology. Response shows some structure, limited written language errors. Max 10 if only fieldwork or research.	
ork and	
he	

		 complexities involved in undertaking and managing the rebranding process. A large number of players are needed since there are so many groups, organisations and individuals involved at different stages from the initial idea, to fund-raising, planning, development and management of a scheme. The diagram illustrates the need for the involvement of a number of different players at different times. Many projects in rural areas cut across different themes, e.g. business, tourism, food, culture, technology etc meaning different organisations will be involved. Credit only rural examples. Candidates are expected to use their own knowledge and understanding to provide examples from their own studies of a wide range of players - these could be linked to fieldwork. However, there must be direct reference to the resource as part of their answer. Credit any reference to the need for cooperation and the possible conflicts are often centred around paid vs volunteers, or local vs big co's (or top-down vs bottom-up). There may also be conflicts in terms of the scale of proposals in the rural area and 'too much change'.
Level	Mark	Descriptor
Level 1	1-4	Limited structure and very basic response using one or two lift-offs only. No mention of valid ideas of why so many players may be involved. Considerable errors in language.
Level 2	5-7	Some aspects of the diagram examined. May refer to explicit groups and could use own examples / data to develop answer. Some structure, and some written language errors. Some use of terminology.
Level 3	8-10	A response where the resource is clearly used as a stimulus. Recognises the complex nature of processes and/or different stages. Expect players to be both local and national scale. Likely to build-in own exemplification. Well structured; written language errors are rare; uses terminology.

Question	Number	Question
4(b)		
QWC (i, ii, iii)		
Series		Indicative content
qu di at cc • • • • • • • • • • • • • • • • • •		 Marketing the historic or event significance Cities / towns gaining reputations for high quality food, e.g. Ludlow Promoting excellent shopping destinations Towns and cities with theatre and night life (night-time economy) - 'tourist cities' Places for the arts / culture / literature which attract visitors, especially national museums, e.g. Tate Modern Film heritage and creating trails Special festivals (especially music) + air shows
Level	Mark	Descriptor
Level 1	1-4	Basic and generalised with few ideas about urban re-imaging / improvements. Very limited or no reference to any examples. Lacks structure and very limited use of geographical terminology. Considerable errors in language.
Level 2	5-7	Uses at least one example to support response. Some structure. Likely to be lacking in either range or depth, but shows some understanding of use of strategies to re-image, but may not make link to more visitors. There are some written language errors.
Level 3	8-10	A clear response which shows a good understanding of how different strategies are needed to re-image places (linked to attracting more visitors). Uses examples effectively. Well structured and balanced response and written language errors are rare.

Question Number		Question	
4(c) QWC (i, ii, iii)			
Series		Indicative content	
		There are a range of fieldwork and research opportunities linked to need for rebranding -these may include:Fieldwork (primary):Shopping and retail quality linked to land-use map Maps of building age etc. 	
		Questionnaires / interviews / oral histories - how and why groups of people are excluded or feel place is run down. EQ surveys may also feature. May also be surveys of crime maps , graffiti or 24hr city ideas, e.g. land-use maps linked to quality of shopping.Research (secondary):Use of internet blogs, forums etc to find out about how people feel about a place - reputation. 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.	
		In reality it is quite difficult to get evidence - credit any acknowledgment that results may be partial and tentative; based on more subjective observations. As question relates to patterns, credit any spatially-linked ideas. Note can be either urban or rural.	
Level	Mark	Descriptor	
Level 1	1-4	Limited range of fieldwork / research described. Fieldwork will probably not be appropriate / linked to rebranding. Lacks structure. Considerable errors in language.	
Level 2	5-8	Descriptive style but with some statements about either fieldwork or research approaches vaguely linked to some aspect of rebranding. A description that lacks focus on the question / less relevant techniques. Likely to 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 the need to rebrand, but detail may be absent. 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 relevant fieldwork and research techniques in detail, to find out why somewhere needs to rebrand. Good use of terminology. Written language errors are rare.	

Further copies of this publication are available from Edexcel Publications, Adamsway, Mansfield, Notts, NG18 4FN

Telephone 01623 467467 Fax 01623 450481 Email <u>publication.orders@edexcel.com</u> Order Code US032265 Summer 2012

For more information on Edexcel qualifications, please visit our website www.edexcel.com

Pearson Education Limited. Registered company number 872828 with its registered office at Edinburgh Gate, Harlow, Essex CM20 2JE





