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General Certificate of Education

Geography 2030

GEOG2 Geographical Skills

Mark Scheme

2009 examination - June series

Post Standardisation

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

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GEOG2 General Guidance for GCE Geography Assistant Examiners

As required by QCA, the marking scheme for this unit includes an overall assessment of quality of written communication. There are no discrete marks for the assessment of written communications but where questions are "Levels" marked, written communication will be assessed as one of the criteria within each level.

Level 1: Language is basic, descriptions and explanations are over simplified and lack clarity.

Level 2: Generally accurate use of language; descriptions and explanations can be easily followed, but are not clearly expressed throughout.

Marking – the philosophy

Marking should be positive rather than negative.

Mark schemes – layout and style

The mark scheme for each question will have the following format:

- a) Notes for answers (nfa) – exemplars of the material that might be offered by candidates
- b) Mark scheme containing advice on the awarding of credit and levels indicators.

Point marking and Levels marking

- a) Questions with a mark range of 1-4 marks will be point marked.
- b) Levels will be used for all questions with a tariff of 5 marks and over.
- c) Two levels only for questions with a tariff of 5 to 8 marks.

Levels Marking – General Criteria

Everyone involved in the levels marking process (examiners, teachers, students) should understand the criteria for moving from one level to the next – the “triggers”. The following general criteria are designed to assist all involved in determining into which band the quality of response should be placed. It is anticipated that candidates’ performances under the various elements will be broadly inter-related. Further development of these principles will be discussed during Standardisation meetings. In broad terms the levels will operate as follows:

Level 1: attempts the question to some extent (basic)

An answer at this level is likely to:

- display a basic understanding of the topic
- make one or two points without support of appropriate exemplification or application of principle
- give a basic list of characteristics, reasons and attitudes
- provide a basic account of a case study, or provide no case study evidence
- give a response to one command of a question where two (or more) commands are stated eg “describe and suggest reason”
- demonstrate a simplistic style of writing perhaps lacking close relation to the terms of the question and unlikely to communicate complexity of subject matter
- lack organisation, relevance and specialist vocabulary
- demonstrate deficiencies in legibility, spelling, grammar and punctuation which detract from the clarity of meaning.

Level 2: answers the question (well/clearly)

An answer at this level is likely to:

- display a clear understanding of the topic
- make one or two points with support of appropriate exemplification and/or application of principle
- give a number of characteristics, reasons, attitudes
- provide clear use of case studies
- give responses to more than one command e.g. “describe and explain..”
- demonstrate a style of writing which matches the requirements of the question and acknowledges the potential complexity of the subject matter
- demonstrate relevance and coherence with appropriate use of specialist vocabulary
- demonstrate legibility of text, and qualities of spelling, grammar and punctuation which do not detract from the clarity of meaning.

CMI+ annotations

- The annotation tool will be available for levels response questions.
- Where an answer is marked using a levels response scheme the examiner should annotate the script with 'L1' or 'L2' at the point where that level has been reached. At each point where the answer reaches that level the appropriate levels indicator should be given. Where an answer fails to achieve Level 1 zero marks should be given.
- Where answers do not require levels of response marking, the script should not be annotated. For point marked questions where no credit-worthy points are made, zero marks should be given.

Other mechanics of marking

- Unless indicated otherwise, always mark text before marking maps and diagrams. Do not give double credit for the same point in text and diagrams.

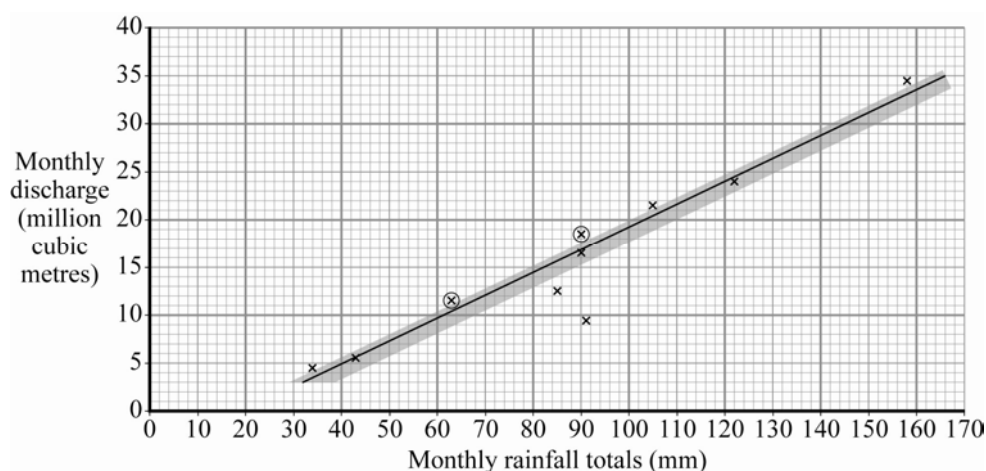
Q1(d)	Ec = Economic En = Environmental
Q2(a)(ii)	D = Describe
Q2(a)(iii)	L = Limitations
Q2(b)	O = Outline J = Justify

Question 1

1 a (i) 1 mark for each accurate plot. **2 marks**

1 a (ii) 1 mark for each valid point, e.g. 2007 is by far the wettest year comparing figures to July with the previous years. There is no other consecutive three month spell over the period in question with such a high variation from the norm. Also no other year has four months outside of the 50% range. 2007 also contains the largest negative anomaly (April). Max 1 mark for use of data to exemplify.
Any logical difference as long as clearly rooted in the resource. **4 marks**

1 b (i) 1 mark for each accurately plotted point. **3 marks**
Best-fit line – accept those drawn freehand as long as broadly placed in the correct place. Best-fit line originating 0,0 not accepted.



1 b (ii) 1 mark for each valid point, e.g. there is a strong positive correlation between the two variables. **2 marks**
As monthly rainfall totals increase, there is a proportionate increase in monthly discharge. Additional credit for exemplification using data. Allow reference to anomaly.

1 b (iii) 1 mark for each valid point, e.g. straight line drawn by eye to best represent correlation. Centre of the distribution of the points reflecting the trend. May have been drawn with equal number of points on either side. May refer to anomalies/extreme values, e.g. the 9.61 million cubic metres/90mm rainfall point in construction. In mathematical terms, some may refer to the fact that the sum of displacements should be equal on either side of the line. Close to as many points as possible. **2 marks**

- 1 (c) Max 1 mark for valid factor, with additional credit for development, e.g. increased surface run-off caused by impermeable surfaces. **4 marks**
 Development leading to increased runoff during heavy rainfall. Likely farmland drainage system speeds up movement of water off the land into the river. Also, allow flood plain/flat land idea.
 Lack of natural vegetation in the image which would naturally act as a store by intercepting rainfall or absorbing after infiltration into soil.
 Lowland section evidenced by meandering - possible increased propensity to flood linked to processes in meanders.
 Bridges may exacerbate flooding due to pile up of water behind.
 Credit simple statements with one mark, with additional credit for development of idea.
 Any logical possible cause as long as it is clearly rooted in the source materials. Max 1 for listing. Max 3 for 1 reason.

- 1 (d) **Notes for answers** **8 marks**

Economic issues (Ec)

Responses are likely to focus on the economic costs and benefits of the scheme. This is an entirely legitimate approach. Economic benefits relate to those associated with the protection offered by the scheme. 74 properties now protected from flooding means fewer insurance payouts and disruption to business in the area.

A likely issue raised might consider the financial cost of the scheme. Some might even calculate the cost per property saved from a 100 year flood (over £47000) and question the economic value of this – in other words is £3.5 million a worthwhile investment to protect what is a relatively small number of properties.

Environmental issues (En)

Despite attempts to enhance the local environment, construction of up to 700 metres of flood defences is sure to impact negatively upon the river bank particularly during construction, especially bearing in mind that the development took almost two years to complete. Reference to likely disruption of local ecosystems is valid comment also. Some may consider the built / human environment which is clearly valid in the context of the question. This is likely to focus upon environmental improvement as vegetation planting has occurred and walkways improved. Some may even link to the protected buildings and refer to this as environmental improvement. Valid comment might consider impact downstream.

Comment may be evaluative, impact based or analytical judgement.

Level 1 (1-4 marks)

A simplistic response which, at the low end, fails to engage with the theme of the question. Unlikely to consider both environmental and economic issues. Lifts heavily from the text and lacking in discernable structure. Basic comment.

Level 2 - (5-8 marks)

A more detailed response clearly focused on theme and recognises between the economic and environmental issues. At the bottom end, may still be unbalanced and lift from the text but there will be some comment. Clearly structured. For full marks there must be comment on both economic and environmental issues.

Question 2

2 a (i) The enquiry should come from the specification. **4 marks**

1 mark for each valid point.

E.g. location. Clear naming location (1 mark)

I chose Walton in inner-city Liverpool as the basis for our investigation.

I planned to survey the environmental quality of four streets in fairly close proximity known to have a high concentration of immigrant populations etc.

Responses may focus upon situation and/or characteristics.

Max 2 for describing location.

E.g. suitability.

My secondary data search had revealed that Walton has a large population of recent Eastern European migrants, which was part of the focus of our enquiry. The site was easily accessed from my school within an hour's travel.

This meant fieldwork could be easily carried out within a day.

The site had been risk assessed and was considered a safe place to undertake fieldwork. Allow a second mark for elaborated response on "safe" aspects of site.

Max 3 for outlining suitability.

2 a (ii) **Notes for answers** **5 marks**

Hypothesis/issue/research question able to be tested, generating primary data.

E.g. an investigation into the perceptions of residents of Walton about the quality of their local environment.

The methodology should be clear, logical and sequential. It should be possible for the reader to re-create the methodology based upon the information given and clearly address the previous hypothesis/issue/research questions.

E.g. I used an environmental quality survey and a quality decay index to investigate the local environment. This would be compared later with residents' perceptions of the local environment. For the environmental quality survey I selected four locations within our study area to undertake the survey. At each location I gave a score to various indicators such as green space, traffic, graffiti and litter. The score was a minimum of one a maximum of five. The scores were then totalled for each site. I repeated this at the four sites etc.

Techniques which do not clearly link to the theme of the enquiry should be held to Level 1.

Level 1 (1-3 marks)

A vague hypothesis/research question/issue which may have tenuous links to the specification. Methodology simplistic and/or vague, lacking sound geographical basis with obvious omissions.

Level 2 (4-5 marks)

A clear hypothesis/issue/research question. Methodology detailed, full and able to be replicated for full marks.

2 a (iii) Notes for answers**6 marks**

Candidates are expected to highlight the limitations of their chosen methodology. This is an important aspect of evaluating investigative work. Human error may contribute to limitation.

E.g. Discussion of limitations is largely dependent on the type of study. Expect some to refer to problems with the sampling technique such as the planned approach had to be abandoned once in the field due to unforeseen circumstances. Others may question the subjective nature of the qualitative data obtained (if that was the nature of the method). Another approach might be to discuss the limitations in terms of timescale. Responses may focus on the need for more visits to the study area. Some may consider technical aspects of the data collection methodology.

Level 1 (1-4 marks)

A very simplistic awareness of the limitations, perhaps limited to one or two statements, lacking detail. May drift into solutions. May only offer one limitation.

Level 2 (5-6 marks)

A more complex response which shows understanding of the limitations in the context of the enquiry. At the bottom end may still offer solutions. Detailed limitations linking to subsequent impact upon results or other aspects of the enquiry.

2 (b) Notes for answers**5 marks**

Any appropriate technique could be used here including those appearing in the A2 aspect of statistical skills. There should be some reference to the results obtained, particularly in justifying the technique/s.

Outline requires the candidate to demonstrate how to apply the chosen technique/s to the data. The response should be logical and sequential. Presentation techniques may feature. Level 1 unless there is a clear attempt to show how analysis took place.

Justification should be used to show why the technique/s was used in relation to the data collected. Emphasis could be placed on benefits and it is possible to see responses which reject alternatives as their justification for chosen technique/s.

Level 1 (1-3 marks)

A very basic response with more emphasis on description of a technique/s. Technique/s may not be appropriate to the results/data. Little or no justification.

Level 2 (4-5 marks)

Outlines the technique/s. Technique/s appropriately applied to the data collected. Justification relates to the benefits/appropriateness of the

technique/s in relation to the results/data or in rejection of other techniques. There must be clear outline and justification for top Level 2.

2 (c) **Notes for answers**

5 marks

Often, textbook theory cannot be replicated easily in the field, either due to the limitations of the enquiry itself (as discussed earlier in methodology) or some factors in the complex nature of the local situation and/or variables beyond the scope of the enquiry. Some may therefore refer to such complexity. Candidates should be able to demonstrate that the enquiry undertaken has broadened their understanding of the topic by referring to findings in relation to theory and/or original aim. Some may point to the need for further research and this is valid in the context of the question. No reference to findings maximum Level 1.

Level 1 (1-3 marks)

Findings may be suspect with a sense that the enquiry has not been effectively understood or perhaps even carried out in full. Generic summary linked to theory in a superficial descriptive context. Simplistic statements.

Level 2 (4-5 marks)

Findings clearly based upon enquiry undertaken. Shows awareness of how findings link to theory. Perhaps shows understanding of the complex nature of the local environment and how this impacts upon findings. May suggest further areas of enquiry/research.