



General Certificate of Education

Geography 2030
Specification

GEOG2 Geographical Skills

Mark Scheme

2010 examination - January series

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.

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GEOG2 General Guidance for GCE Geography Assistant Examiners

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. Once the Level has been determined, examiners should initially set the mark at the middle of the mark range for that level (or the upper value where no mid value exists). Then refine the mark up or down using the General Criteria, Notes For Answers and the additional question specific levels guidance. 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
- 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:

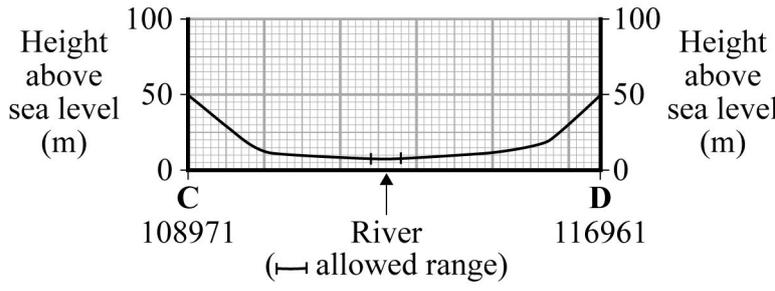
- display a clear understanding of the topic
- make one or two points with support of appropriate exemplification and/or application of principle
- give a number of characteristics, reasons, attitudes (“more than one”) where the question requires it
- provide detailed use of case studies
- give responses 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

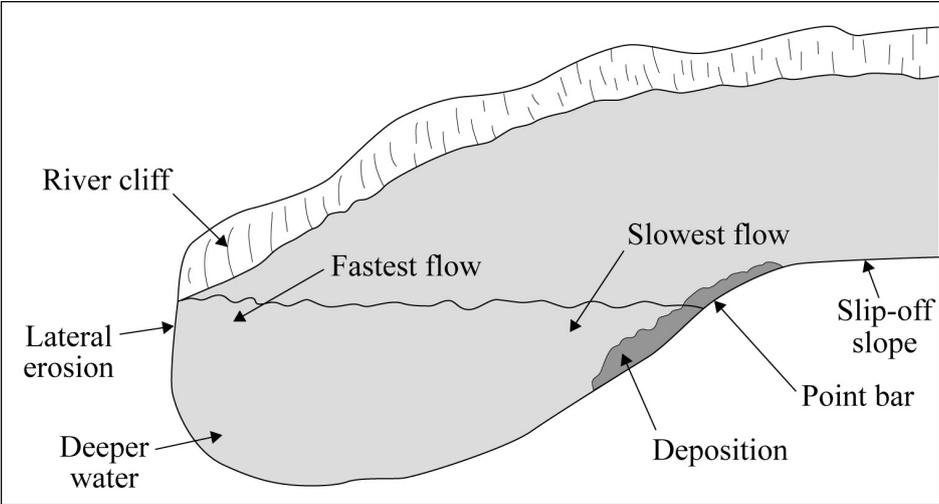
- The annotation tool will be available for levels response questions.
- Where an answer is marked using a levels response scheme the examiner should annotate the script with 'L1' or 'L2' at the point where that level has been reached. In addition examiners may want to indicate strong material by annotating the script as “Good Level...”. Further commentary may also be given at the end of the answer. 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

- Various codes may be used such as: ‘rep’ (repeated material), ‘va’ (vague), ‘NAQ’ (not answering question), ‘seen’, etc.
- Unless indicated otherwise, always mark text before marking maps and diagrams. Do not give double credit for the same point in text and diagrams.

<p>1 (a)(i)</p>	<p>2 x 1 mark for each accurate plot. 1 mark for accurate calculation of the median (841 mm). No requirement to add numbers to dispersion diagram.</p>	<p>(3 marks)</p>
<p>1 (a)(ii)</p>	<p>3 x 1 mark for calculation of each element (UQ = 1019; LQ = 662; IQR = 357) i.e. 1 mark for correct upper quartile, 1 mark for correct lower quartile and 1 mark for overall calculation. No credit for rank only. Allow UQ/LQ reversal and negative IQR. Accept only 357 or -357 for IQR.</p>	<p>(3 marks)</p>
<p>1 (a)(iii)</p>	<p>One mark per valid point with additional credit for manipulation of data (max 1) e.g: The distribution shows considerable variation in rainfall across England in 2005. May exemplify with reference to the full range of data (763). IQR of 357 shows that without extreme values, the range is much smaller. Identification of some evidence of clustering around 800-900mm. No credit for simply re-stating the IQR without contextualising or qualifying. Calculation of mean (846.47 or 846). No credit for simple lift of data without context.</p>	<p>(4 marks)</p>
<p>1 (b)(i)</p>	<p>Starting and finishing at 50m- 1 mark. Accurate change of gradient both sides 1 mark. Accurate flat base 1 mark. Reserve 1 mark or accurately locating the river (i.e. max 3 if river location is incorrect or missing). Max 3 without overall accuracy. No need to name river.</p> 	<p>(4 marks)</p>

<p>1 (b)(ii)</p>	<p>Notes for answers</p> <p><u>Description (D)</u> Responses should show how the Linbeck Gill channel changes from being very narrow and relatively straight, apparently carrying little water, to the river Esk which is much wider showing evidence of meandering. Grid references should be used to support this.</p> <p>The valley changes from being steep and narrow around Linbeck Gill to a wide, low-lying gently sloping valley around the River Esk. Map evidence (M) could refer to contour lines and heights above sea level to support this.</p> <p><u>Explanation (E)</u> Likely to be linked to upland versus lowland processes. Expect to see reference to vertical versus lateral erosion. Abrasion / attrition / hydraulic action as well as deposition leading to the formation of the meanders. Some may refer to glacial processes shaping the lowland valley around the River Esk which is creditworthy.</p> <p><u>Level 1 (1–4 marks)</u> Fails to address differences. May only consider one of the two areas- valley or channel. Unlikely to use map evidence effectively if at all. Simplistic comments. Predominantly descriptive. Lacking explanation.</p> <p><u>Level 2 (5–7 marks)</u> Clearly aware of the channel and/or valley differences. May not use map evidence well at the bottom end. Explanation present though may not be complete. Does show awareness of processes. For full marks there must be description, explanation and specific map references.</p>	<p>(7 marks)</p>
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<p>1 (b)(iii)</p>	<p>There are many ways in which candidates might approach this question.</p> <p>A typical recognisable meander cross-section- Accept plan view (1 mark)</p> <p>River cliff, point bar/slip-off slope (1 mark for each). Max 2 for landforms</p> <p>Correct location for erosion and/or deposition (1 mark)</p> <p>Correct location of fastest and/or slowest flow (1 mark)</p> <p>Indications of depth (1 mark)</p> <p><i>For full marks there must be evidence of both landform and process.</i></p> <p><i>Max 3 if not.</i></p> <p>See sketch below</p> 	<p>(4 marks)</p>
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<p>2 (a)(i)</p>	<p>Notes for answers</p> <p>There must be an aim which is clearly geographical and also generated from within the specification. It should point towards an investigation which can be realistically completed by a student, particularly in terms of time and scale.</p> <p>e.g. to investigate the changing pattern of sediments across a shingle beach at location x.</p> <p>The method should be described in such a way that the reader could replicate it without any prior knowledge.</p> <p>e.g. We sampled sediments along a transect across a beach. Starting at the cliff line, we took our compass bearing to ensure that we kept a straight line. We then used a tape measure to mark out five metre intervals. At each interval along the transect we used a random number table to generate picking points for the sediments. We selected ten pieces of beach material at each point. We used Powers Index of Roundness to judge the angularity of the sediments. We then took three measurements of the depth, width and long axis of each piece of material.... Etc.</p> <p>Level 1(1–4 marks) A dubious aim which might not be clearly rooted in the specification. The method is poorly explained and difficult to follow, perhaps giving a sense that the candidate either did not understand the method or did not undertake the method. Obvious/important gaps in the method making it difficult to replicate from information given.</p> <p>Level 2 (5–6 marks) A clear aim well rooted in the specification. The method is detailed and clear. It is easy to follow, possibly with some obvious omissions at the bottom end. For full marks it has to be able to be replicated from only the detail provided.</p>	<p>(6 marks)</p>
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<p>2 (a)(ii)</p>	<p>Notes for answers</p> <p>This is an opportunity for candidates to demonstrate their ability to evaluate the method. It is reasonable to expect candidates to offer improvements whilst discussing weaknesses. There is likely to be a trade off between breadth and depth in terms of range of strengths (S) and weaknesses (W) considered. Some may refer to strengths in terms of what the gathered data would subsequently be used for.</p> <p>e.g. The method was effective because within our groups we all completed four transects during the course of the day. This allowed us to build up a picture of sediment changes across a large area of the shingle beach. Also, we all used the same sampling technique and this gave us strong consistency etc...</p> <p>One weakness was related to the Powers Index of Roundness technique for classifying material. This is quite a subjective analysis and we had lots of disagreements etc...</p> <p>Level 1 (1–4 marks) A very limited awareness of the strengths and limitations of the chosen method. Unlikely to consider both elements, or offer dubious evaluative comment.</p> <p>Level 2 (5–6 marks) A clear awareness of the strengths and weaknesses. May be unbalanced, but does consider both aspects. Some explicit evaluation for full marks. For full marks there should be more than one strength/weakness.</p>	<p>(6 marks)</p>
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<p>2 (b)</p>	<p>Notes for answers</p> <p>Responses should show an awareness of the data transformation process. The response should show how the various stages in the generation of the technique occur. The specific technique should be appropriately named. Some candidates may describe the presentation of a technique using electronic media such as Microsoft Excel. This is acceptable as long the process is explained at a comparable level of detail. Max L1 for an approach which is clearly based around analysis, e.g. Spearman's test. Max L1 for describing technique with no reference to candidate's own data.</p> <p>e.g. We used proportional divided circles to represent our beach study data. We first calculated the estimated volume (length x breadth x depth) of each piece of beach material and then took an average of the ten sediments. This gave us an average volume for each 5 metre interval. We then used a simple formula where radius is equal to the square root of the area divided by π (pi). For area we used the volume of the pebble measured in cm^3. This gave us a proportional radius which, using a compass then gave us a proportional circle for each transect. We then used an overlay to display this data on a sketch map of the area.</p> <p>Level 1 (1–3 marks) The technique may not be correctly named. At the bottom end, description may not relate to the named technique. Poorly explained, with clear gaps in understanding of how to construct the chosen presentation technique. May choose an inappropriate presentation technique or describe a very basic technique such as creating a table.</p> <p>Level 2 (4–5 marks) A step by step guide through the transformation of data from numerical form through to the completion of the chosen technique. Bottom L2 may have some obvious error or omission but with a general sense that the technique is understood.</p>	<p>(5 marks)</p>
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<p>2 (c)</p>	<p>Notes for answers</p> <p>Response should summarise findings and in doing so, link these to the expected outcomes. This should be based upon the theory concept or idea from which the study was based. The key is in the linkage.</p> <p>e.g Our theory suggested that the largest beach material would be found at the back of the beach (nearest the cliff) this is due to the sorting action of waves on a beach...etc.</p> <p>However our data was inconclusive in relation to the expected outcome. We found that average particle size at the back of the beach was ...For some transects the data did indeed show a decline in volume with distance from the back of the beach in line with the theory, but for others the findings where inconsistent. Transect 7 for example showed an increase in particle size of 14cm³ at a distance of 20 metres from the back of the storm beach. If this were just an isolated case, we might explain this as faulty data collection, but several other groups reported similar trends. This highlights the need for further research into the phenomenaetc.</p> <p>Level 1 (1–4 marks) Likely to summarise findings in only the most general terms. Theory is basic and at the bottom end may be completely absent or clearly erroneous. Does not come to a view. May only describe findings without linking to theory concept or idea.</p> <p>Level 2 (5–8 marks) May explain how/why findings differ from theory or expected outcomes. May only come to a view implicitly at the bottom end, but does use findings in a more detailed fashion. Links findings to the expected outcomes, but still may be fairly superficial at the bottom end. For full marks response must come to an explicit view showing a detailed understandings of how the findings relate to the theory concept or idea.</p>	<p>(8 marks)</p>
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