

Geography

Advanced GCE

Unit **F764**: Geographical Skills

Mark Scheme for January 2013

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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Annotations

Annotation	Meaning
	Correct point (only to be used in the Standardisation sample).
	Omission mark. Further development needed, missing point or link between points.
	Level one.
	Level two.
	Level three.
	Unclear, inaccurate, dubious validity.
	Irrelevant, a significant amount of material that does not answer the question
	No example(s) used or provided.
	Rubric Error (place at start of Question not being counted).
	Highlighting an issue eg irrelevant paragraph. Use in conjunction with another stamp eg  or 
	Point has been seen and noted.
	Use in essays to indicate areas of evaluation.

All answers and pages with a response must have at least one annotation to show that they have been seen.

Question			Answer	Marks	Content	Guidance
						Levels of response
1	(a)	(i)	<p>Candidates should recognise that a wide variety of human and physical investigations are possible in this area, including: river survey, dune survey, traffic investigation, microclimate, tourism.</p> <p>and then explain why this is so:</p> <ul style="list-style-type: none"> • range of environments – physical and/or human • variety of relief and aspects • scale – size of area • safety – few risks • accessibility eg footpaths, road <p>Clear reference to map is expected.</p>	5	<p>Top level should have clear focus on the notion of variety of geographical investigations.</p> <p>Must refer to map eg Grid references, place names to get beyond L1.</p> <p>If simply justifying a single investigation in the map area then max L1.</p> <p>List of sites with an appropriate investigation for each then top L1.</p>	<p>Level 2 (4–5 marks) Candidates suggest one or more detailed reasons. Range of types of investigation possible in this area should be clear at this level. Clear reference made to map.</p> <p>Level 1 (0–3 marks) Candidates suggest one or more limited reasons. Limited reference to 'variety'. Limited, if any, reference made to map.</p>

Question		Answer	Marks	Content	Guidance
					Levels of response
	(ii)	<p>Clearly this will vary with the choice of concept and investigation.</p> <p>The main thrust of the question is justifying how it is suitable to be investigated in that area shown by the map. So clear reference to the map is expected.</p> <p>Justification may link to: scale, time, access, landscape, features etc but these should be clearly relevant to the map area.</p>	10	<p>L3 distinguished by tight link to features on the map. L3 needs realistic concept, solid justification and clear reference to map.</p> <p>Some may use the SMART approach but unless it is linked to the map it is unlikely to get beyond a mid L2 response.</p> <p>L2 – two of: realistic concept, solid justification and clear reference to map.</p> <p>Simple description of a concept or investigation is unlikely to get beyond L1.</p> <p>L1 – one of: realistic concept, solid justification and clear reference to map.</p>	<p>Level 3 (8–10 marks) Candidates offer a detailed description of the concept and justify it with clear linkage to the map. Clear cause-effect between concept and choice of investigation. Answer is well structured with accurate grammar and spelling. Good use of appropriate geographical terminology.</p> <p>Level 2 (5–7 marks) Candidates offer an unbalanced description/justification – probably the latter less detailed – of the concept/investigation. Limited reference to the map. Answer has sound structure but may have some errors in grammar and spelling. Some use of appropriate geographical terminology.</p> <p>Level 1 (0–4 marks) Candidates offer a largely descriptive answer of the concept and/or type of investigation, poorly linked to map. Answer has little structure and has some errors in grammar and spelling. Little use of geographical terminology.</p> <p>If either description of concept or justification clearly missing then max Level 1.</p>

Question			Answer	Marks	Content	Guidance
						Levels of response
	(b)		<p>Systematic sampling is collected at regular intervals – in time, space or numbered intervals on a list.</p> <p>It is quick, easy, ideal for covering an area. Usefulness may be related to the type of investigation such as using questionnaires.</p> <p>But is unsuitable if there is an irregular pattern, it is biased and as such is unsuitable for many statistical tests.</p>	5	<p>Both pros and cons need to be outlined at this level.</p> <p>Be careful that the answer isn't a generic one on sampling – this would be a low level response.</p>	<p>Level 2 (4–5 marks) Candidates give a clear outline of advantages and disadvantages - clear evaluation. Some exemplification may be offered at this level.</p> <p>Level 1 (0–3 marks) Candidates give a limited or vague outline of advantages and/or disadvantages - little evaluation or offers an unbalanced answer with one aspect missing.</p>
2	(a)	(i)	<p>The way the grid is set up invites a Chi squared test or central tendency measures but the latter may need a lot of explaining. Spearman's rank and Mann Whitney U are not acceptable so can gain no credit.</p> <p>Non purely statistical analysis is possible e.g. divided bars, pie charts but it must show how it is used analytically (comparator), but this is a low level response.</p>	5	<p>The stress is on analysis so purely representative methods/techniques are unlikely to get beyond Level 1.</p> <p>Simply stating the method is worth a mark but some development of how this analyses the data or details of the method is expected. There is no requirement to state formula or carry out the analysis.</p>	<p>Level 2 (4–5 marks) Candidates offer detailed comments on an appropriate method that could be used to analyse the data. Clear reference made to Fig. 2.</p> <p>Level 1 (0–3 marks) Candidates give limited or inaccurate outline of a method with little, if any, linkage to the data.</p>

Question		Answer	Marks	Content	Guidance
					Levels of response
	(ii)	<p>This is looking at ways such data could be shown:</p> <ul style="list-style-type: none"> divided proportional circles or squares divided proportional symbols bar charts or pie charts triangular graph table of data other – but they would need to be backed up with clear relevance for such data <p>Description can be the description of the technique or a description of its effectiveness.</p> <p>Comparison may consider both positive eg visual impact and negative eg difficulty of locating the symbol.</p>	10	<p>Credit attempts to show drawings of techniques – it counts as description. L3 is distinguished from L2 on depth of comparison. Needs to be clearly linked to ‘such’ data to get into L3.</p> <p>L2 if description of two ways but little comparison of effectiveness.</p> <p>L1 – description but no comparison. If only one way then comparison is not possible so answer stays in L1.</p>	<p>Level 3 (8–10 marks) Candidates clearly describe and compare in detail two alternative ways. There is clear linkage to the data used in Fig. 2. Answer is well structured with accurate grammar and spelling. Good use of appropriate geographical terminology.</p> <p>Level 2 (5–7 marks) Candidates describe and offer some comparison of two alternative ways – although they are likely to be unbalanced at this level. There should be some linkage to data used in Fig. 2. Answer has sound structure but may have some errors in grammar and spelling. Some use of appropriate geographical terminology.</p> <p>Level 1 (0–4 marks) Much may be descriptive with little, if any, comparison. Much will be superficial with little, if any, linkage to the data used in Fig. 2. Answer has little structure and has some errors in grammar and spelling. Little use of geographical terminology.</p>

Question		Answer	Marks	Content	Guidance
					Levels of response
	(b)	<p>Field sketches can be used to:</p> <ul style="list-style-type: none"> • give context for data collection • identify features and/or locations • give a subjective impression of a place or situation • draws attention to detail • can be labelled <p>Evaluation may focus on their usefulness or look at what they should have to be successful such as title, scale, annotations.</p> <p>Advantages – visual, reality, annotation, immediate.</p> <p>Limitations – time, skill.</p>	5	<p>Evaluation covers both positive and negative aspects.</p> <p>One 'use' evaluated well could be a L2 response.</p>	<p>Level 2 (4–5 marks) Candidates evaluate in detail the use of field sketches with a clear link to investigations.</p> <p>Level 1 (0–3 marks) Candidates give a limited or superficial evaluation of field sketches with little, if any, linkage to investigations.</p>
3	(a)	<p>This is about the effectiveness. Points could cover aspects of:</p> <ul style="list-style-type: none"> • length of time not given • timing • grouping of traffic and groups chosen • direction of flows • location • total traffic • 'other' is too vague. 	5	<p>Generic answers on tally sheets are unlikely to get out of L1.</p>	<p>Level 2 (4–5 marks) Candidates give detailed comments and evaluation on at least three aspects of the tally sheet. Clear reference to Fig. 3.</p> <p>Level 1 (0–3 marks) Candidates give vague or limited comments and little evaluation on aspects of the tally sheet. Limited reference to Fig. 3.</p>

Question		Answer	Marks	Content	Guidance
					Levels of response
	(b)	<p>There is a wide range of choices of factors which could include:</p> <ul style="list-style-type: none"> • type of data • purpose of presentation • scale/interval/range of data • location – where will it be placed • size of symbol • colour/shading • lettering/labelling • ability to extract data • dimension – 2D or 3D <p>Or candidates may be more generic and look at aspects of time, impact, cost, availability of ICT etc.</p> <p>The ‘assess’ part expects some type of evaluation of the relative importance of the factors chosen.</p> <p>This is not a question that asks for description of a technique.</p>	10	<p>Credit attempts to show drawings of technique if this supports or illustrates one or more of the factors or evaluation.</p> <p>L3 probably distinguished from L2 on range and depth of the evaluation of the relative role of the factor.</p> <p>Sound list of reasons for using a technique could reach the top of L2.</p> <p>L1 – pure description of one or more factors.</p>	<p>Level 3 (8–10 marks) Candidates clearly assess a range of relevant factors and may support this with some exemplification. Answer is well structured with accurate grammar and spelling. Good use of appropriate geographical terminology.</p> <p>Level 2 (5–7 marks) Candidates describe a range of relevant factors and may support this with some exemplification. Answer has sound structure but may have some errors in grammar and spelling. Some use of appropriate geographical terminology.</p> <p>Level 1 (0–4 marks) Candidates offer limited description of factors with little, if any, assessment of them. Answer has little structure and has some errors in grammar and spelling. Little use of geographical terminology.</p>

Question		Answer	Marks	Content	Guidance
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	(c)	<p>Candidates will probably suggest they are caused by errors in data collection due to faulty equipment, poor choice of strategy (sample size), human nature, lack of knowledge eg can't identify plant species.</p> <p>Others may take a more philosophical approach and suggest that in a normal distribution there will always be some anomalies or that it is at an instant of time for a dynamic system which is forever changing. They may suggest anomalies may be the norm – the model or concept is flawed.</p> <p>Others may focus on the geographical nature – weather, location etc that produce unexpected errors or anomalies.</p>	5	A high level response may suggest we normally work to a 95% confidence level so there is an implied acceptance or expectation of anomalies.	<p>Level 2 (4–5 marks) Candidates explain reasons for anomalies with clear focus on data collected in an investigation.</p> <p>Level 1 (0–3 marks) Candidates offer limited explanations for anomalies with little focus on data collected in an investigation. Much will be vague or largely descriptive.</p>

Question		Answer	Marks	Content	Guidance
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4		<p>This requires an evaluation of the methods they used to ensure:</p> <p>Accuracy – the level at which data is exact and free from error.</p> <p>Reliability – how dependable the data is eg does the sample (size, type, unit) reflect the whole population. It also has the meaning of – if the investigation was repeated would you get the same results every time.</p> <p>This defining of the terms may be an indicator of a high level response.</p> <p>Examples of increasing/ensuring accuracy may include:</p> <ul style="list-style-type: none"> • better equipment • more careful methods • human factors • knowing the data sources <p>Examples of increasing/ensuring reliability may include:</p> <ul style="list-style-type: none"> • better equipment • more careful methods eg more transects • using a pilot • human factors • knowing the data sources • timing of the investigation • location of the investigation • repeating the investigation 	20	<p>It is the tightness of focus on both accuracy and reliability that will distinguish higher Level 3 responses.</p> <p>L3 – clear evaluation of the methods.</p> <p>L2 – detailed description of the methods used to ensure accuracy and reliability.</p> <p>L1 – vague description of the investigation methods or generic answer with little linkage to their investigation.</p>	<p>Level 3 (16–20 marks) Candidates evaluate in detail the extent to which the methods they used to ensure both the accuracy and reliability worked in their named investigation. Cause and effect are clear and realistic. Answer is well structured with accurate grammar and spelling. Good use of appropriate geographical terminology.</p> <p>Level 2 (10–15 marks) Candidates evaluate the extent to which the methods they used to ensure accuracy and reliability worked in their named investigation. Some cause and effect are attempted. Answer has sound structure but may have some errors in grammar and spelling. Some use of appropriate geographical terminology.</p> <p>Level 1 (0–9 marks) Candidates offer limited, if any, evaluation of the extent to which the methods they used to ensure accuracy and reliability worked in their named investigation. No real cause and effect and much is descriptive. Answer has little structure and has some errors in grammar and spelling. Little use of geographical terminology.</p>

Question			Answer	Marks	Guidance	
					Content	Levels of response
			<p>Evaluation is the key with some attempt at identifying the strengths and weaknesses of the methods suggested. They should be evaluated against something – their ability to ensure accuracy and reliability.</p> <p>If no titled investigation stated then max Level 1. If little connection between their title and the strategy (ie largely generic) then max low Level 2. Credit detailed evidence of an individual investigation.</p>		<p>No credit for what could have been done to increase accuracy and reliability (speculation).</p>	

Question		Answer	Marks	Content	Guidance
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5		<p>Clearly this depends upon the nature of their original hypothesis or hypotheses. These do not need to be geographical i.e. spatial.</p> <p>Some offer multiple hypotheses or questions e.g. in the Bradshaw model.</p> <p>The evaluation should suggest what the underlying concept was that produced the hypothesis and then assess the relative success of the findings in supporting it.</p> <p>Data, graphs, statistical results may be offered to show the 'extent'.</p> <p>This is not about what could have done to improve the investigation. This gains no credit.</p> <p>If no titled investigation stated then max Level 1. If little connection between their title and the evaluation (ie largely generic) then max low Level 2. Credit detailed evidence of an individual investigation.</p>	20	<p>It would be reasonable to expect some explanation of the relative level of success.</p> <p>A purely negative evaluation is acceptable but there should be some reasoning demonstrated.</p> <p>L3 – clear assessment of the extent with reasoning.</p> <p>L2 – detailed description of the findings and hypothesis or question.</p> <p>L1 – vague description of the investigation findings.</p>	<p>Level 3 (16–20 marks) Candidates evaluate in detail the extent to which their hypothesis was supported by their named investigation. Cause and effect are clear and realistic. Answer is well structured with accurate grammar and spelling. Good use of appropriate geographical terminology.</p> <p>Level 2 (10–15 marks) Candidates evaluate the extent to which their hypothesis was supported by their named investigation. Answer has sound structure but may have some errors in grammar and spelling. Some use of appropriate geographical terminology.</p> <p>Level 1 (0–9 marks) Candidates offer limited evaluation of the extent to which their hypothesis was supported by their named investigation. No real cause and effect and much is descriptive. Answer has little structure and has some errors in grammar and spelling. Little use of geographical terminology.</p>

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