AQA

ASSESSMENT and QUALIFICATIONS ALLIANCE

Mark scheme
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GCE

Geography A

Unit GGA4

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General Guidance for Examiners

Quality of Written Language

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.

Level 3: Accurate and appropriate use of language; descriptions and explanations are expressed with clarity throughout.

Levels marking – General Criteria

The following general criteria relate to knowledge, understanding and their critical application and the quality of written communication as outlined in the AQA Geography A subject specification. They are designed to assist examiners in determining into which band the quality of response should be placed, and should be used when assessing the level of response an answer has achieved. It is anticipated that candidates' performances under the various dimensions will be broadly inter-related and the general guidelines for each level are as follows:

Level 1: An answer at this level is likely to:

- display a basic understanding of the topic;
- make one of two points without support of appropriate exemplification or application of principle;
- demonstrate a simplistic style of writing, perhaps lacking close relation to the term 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: 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;
- demonstrate a clear style of writing, which clearly addresses the terms of the question
- demonstrate a degree of organisation and use of specialist terms.
- demonstrate sufficient legibility of and quality of spelling, grammar and punctuation to communicate meaning clearly.

Level 3: An answer at this level is likely to:

- display a detailed understanding of the topic;
- make several points with support of appropriate exemplification and/or application of principle;
- demonstrate a sophisticated style of writing incorporating measured and qualified explanation and comment as required by the question and reflecting awareness of the complexity of subject matter and/or incompleteness/tentativeness of explanation;
- demonstrate a clear sense of purpose so that the responses are seen to closely relate to the requirements of the question with confident use of specialist vocabulary;
- demonstrate legibility of text, and qualities of spelling, grammar and punctuation, which contribute to complete clarity of meaning.

N.B. A perfect answer is not usually required for full marks. Clearly it will be possible for an individual candidate to demonstrate variable performance between the levels. In such cases the principle of best fit should be applied. Experience suggests that the use of exemplars within this mark scheme and the discussion which takes place during the Standardisation Meeting normally provides sufficient guidance on the use of levels in marking.

Annotation of Scripts

- Where an answer is marked using 'a levels of response scheme' the examiner should annotate the script with a 'L1' 'L2' or 'L3' at the point where that level is thought to have been reached. The consequent mark should appear in the right-hand column. Where an answer fails to achieve Level 1, zero marks should be given.

- Where answers do not require levels of response marking, each script should be annotated to show that one tick equals one mark. It is helpful if the tick can be positioned in the part of the answer, which is thought to be credit-worthy.

General

It is important to recognise that many of the answers shown within this marking scheme are only exemplars. Where possible, the range of accepted responses is indicated, but because many questions are open-ended in their nature, alternative answers may be equally credit-worthy. The degree of acceptability is clarified through the Standardisation Meeting and subsequently by telephone with the Team Leader as necessary.

Question 1

a) Response should show knowledge and understanding of OS map evidence. At least 4 separate points should be clearly labelled.

Alignment of coasts - south/south west as high energy, north/north east being low energy (underlying awareness of conditions on British coast. (1) This point could be expressed in terms of the direction of the prevailing wind (1) lack of beach/deposited material (1) presence of spit (1)
Headland Bay sequences on south coast - at variety of scale (1)
Cliffs, wave cut platforms present on south coast (1)
Possibly features names/ place names (at least one precise reference) (1)
Mud and Sand in Loughor Estuary (1)
Salt Marshes (1)
Relic cliff line (1)
Sand dunes at Whiteford Burrows (and elsewhere)
Any anomalous feature which may be used to query a simple north-south division. (1) **(4 marks)**

b) Both H & L features to achieve max mark. Response should show knowledge and understanding of notions of high and low energy coasts. Low energy subject mainly to low frequency low energy waves, limited fetch, limited winds, offshore winds, infrequent storm events; low tidal range, absence of tidal currents, tidal scour effects, etc. High energy coasts being opposite frequent waves, frequent/ intense storms onshore winds, long fetches, therefore varying exposure to energy leading to coast with different typical processes and characteristics. (1-4 related to different dominating energy conditions, beware of repetition). Querying simplicity of division, especially in "real world" environments. (1) **(4 marks)**

c) Response should show knowledge and understanding of the notion of coastal cells as sections of coasts within which coastal processes operate, both erosion and deposition, generating supply of sediment for deposition, inputs and outputs of sediment using appropriate systems terminology. Between Worm's head and Whiteford Point extensive sandy beaches present along with sand dunes. Possibility that erosion at Worm's Head and also further east generates sediment for beach and dune supply, that attempts to manage this high energy coast may interrupt sediment supply leading to depletion of beaches at Rhossili, Brough and Whiteford Sands and increase vulnerability of Whiteford Burrows. Further possibility of knock on effects on Llanrhidian Marsh if Whiteford Burrows damaged. Not necessary for all aspects of above to be captured for Level 3 - rather that response conveys clear understanding of cell with application of idea to the specified section of coast allowing some references to areas beyond.

Level 1 Generic Descriptor (1-3) Simple understanding of coastal cell within systems idea and or some reference to coast between A and B.

Level 2 Generic Descriptor (4-5) More refined understanding in clear systems context, some reference to coastal cells, clear use of relevant terminology and plausible statements about effects on coasts between A and B. Some sense of explanation in the response.

Level 3 Generic Descriptor (6-7) Full understanding with confident and apt use of relevant terminology, more than one application of idea to coasts between A and B. Clear sense of explanation in the response. **(7 marks)**

Total for this question: 15 marks

Question 2

a) Response should show knowledge and understanding of notion of hazards in context of vulcanicity. Primary as being directly related to volcanic processes/outputs with relatively immediate impact; secondary as being indirectly related, generally following a volcanic event and precipitated by it whether physical or human in nature (1-3 depending on detail and development). Account of primary or secondary only, no matter how detailed (1). Appropriate reference to data from Figure 2 to illustrate points (1). **(4 marks)**

b) Response should show knowledge and understanding of lahars as being mudflows of volcanic material associated with torrential rainfall, ice melt and so on - resulting mix of debris regolith, water, lava and ash in flow of considerable mobility, tendency to channelled flow at considerable speed leaving little time for late evacuation, modification and so on. Communities vulnerable because already dislocated. (1-4 depending on detail).

Apt and useful reference to example (s) which illustrate points made (probably Nevado del Ruiz) (1) **(4 marks)**

c) Response should show knowledge and understanding of principles of hazard management/responses particularly in vulcanicity context. Hazard modification being deliberate and potentially effective intervention into the hazard attempting to control it. Responses should be realistic in tone and perhaps only refer to lava cooling and lava diversion as realistic; responses should recognise the enormous possibly cataclysmic scale of volcanic eruptions. Vulnerability modification should be known/understood especially in terms of prediction, warning, evacuation, possibly land use planning. Answer may creditably be informed by references to the relevant technology. Distinctions between primary and secondary hazard modification, etc., are creditable.

Relevant exemplification, which contributes to illustration of points made, should be credited. probably Etna for hazard modification and Pinatubo for vulnerability modification.

Level 1 Generic Descriptor (1-3) Simple understanding of the two types of hazard response, no or scant reference to volcanic context. Fuller reference to one type of response with some reference to volcanic context.

Level 2 Generic Descriptor (4-5) More refined understanding of two types of hazard response with clear reference to volcanic context. Relevant examples clearly contribute. Possibly some imbalance between the two types but both referred to.

Level 3 Generic Descriptor (6-7) Clear understanding with detailed account of both types of response with balance between them. Comes to a view on which is the more realistic.**(7 marks)**

Total for this question: 15 marks

Question 3

a) Response should show knowledge and understanding of tundra biomes. Climatic characteristics, low(ish) precipitation, summer maximum; cool summers, very cold winters, large annual temperature range, therefore short growing seasons, extensive physiological drought, etc. (1-3 per point depending on detail and development.) Most nutrient flows and inputs/outputs at a low level, with biomass leaf decay dominant (1-2 per point depending on detail and development). Eco-system being vulnerable to disruption (1-2 depending on detail and development). **(4 marks)**

b) Response should show knowledge and understanding of the impact of climatic characteristics such as low temperatures, many average monthly temps below 0 degrees, short growing seasons, low humidity and precipitation, limited amounts of heat energy and water in the environment and their links with ecological characteristics with little energy available for soil formation processes such as humification/mineralisation so leaf fall dominates. (1-2 per point depending on detail)**(4 marks)**

c) Response should show knowledge and understanding of the ways in which cold environments affect development, particularly in terms of insolation levels, seasonal characteristics, annual temperature/precipitation regimes, impacts on ecological processes, geomorphologic processes and so on. Remoteness, e.g. of sub-polar regions of lower latitude mountainous areas. These should be linked to the opportunities or (lack of) for settlements and economic activity particularly limitations in farming, emphasis on hunting, fishing, possibly even gathering. Limitations on human habitation and economic activity. Expect and credit references to cost of technological solutions to problems of social and economic support for tundra communities, comments on whether problems can be overcome, etc. Encyclopaedic knowledge and coverage is not necessary for Level 3. Some trade off between breadth and depth.

Relevant exemplification, which contributes to illustration of points made, should be credited.

Level 1 Generic Descriptor (1-3) Simple awareness and understanding one or several of basic characteristics of natural environment, climate, Eco-system, geomorphology with brief reference to human development.

Level 2 Generic Descriptor (4-5) Fuller account of one or more characteristic and clear relationship to development possibly with solutions.

Level 3 Generic Descriptor (6-7) Clear understanding and full account of more than one characteristic with details on impacts and clear view on extent of impact. **(7 marks)**

Total for this Question: 15 marks

Mark Scheme for Synoptic Essays

Preamble

Examiners should bear in mind that these questions are synoptic in nature and offer candidates the opportunity to demonstrate knowledge and understanding:

1. across a range of geographical subject matter;
2. of connections between the different aspects of geography in the specification;
3. of the importance, where relevant, of human perspectives on themes and issues.

Candidates are advised of this both in the Assessment Unit Rubric and in the Note to Candidate which precedes the essay questions in Section B. Synoptic elements might therefore feature in answers matching all the criteria bands but can be expected to feature more prominently in higher mark bands. It will be seen that explicit synoptic content is a necessary feature of the two band ranges 19-24 and 25-30.

Additionally essay writing is an important vehicle for the demonstration of communication skills – at level 3 these refer to writing in a manner appropriate to purpose and complex subject matter; organising relevant information clearly and coherently using specialist vocabulary as appropriate and ensuring clarity of meaning through legible text, accurate spelling, punctuation and grammar. (Key Skills – Communication Level 3 C3.3 [QCA]; Para. 13 AS/A Level Geography Specification Outlines [QCA].

Synoptic content and communication aspects should be kept in mind when assessing the unit and are incorporated into the criteria bands set out below which refer to knowledge, understanding and skills. Indicate synoptic content using the letter 's' in the margin as appropriate.

CRITERIA BANDS

Examiners will use the criteria below to evaluate the work, placing the candidate's performance in the appropriate band and attributing the mark from the left-hand column appropriate to the question concerned. They should seek the best fit from the band descriptor – work adjudged to be in a particular band might not contain all the features attributed to that band.

25 – 30

A very good answer. Consistently relevant to the theme and to the demands of the question. Evaluates explicitly where required. Displays a very confident range of knowledge and understanding by using the appropriate terminology, critically referring to concepts and theory where necessary and establishing relationships between different physical and/or human factors and processes. Synoptic elements are a prominent feature and are fully integrated into the answer and used to purposeful effect in respect of the question's requirements. Demonstrates, where relevant, either implicitly or explicitly awareness of human perspectives upon geographical themes and issues. Argues coherently and in an organised, logical and balanced fashion. Support is consistent, accurate and detailed. A well developed essay style. Detailed and sophisticated communication skills with fluent and cogent writing style.

19 – 24

A good answer which remains relevant to the theme and demands of the question. Evaluation may now only be implicit. Displays a confident range of knowledge and understanding, but with a few omissions at the lower end, e.g. some terminology missing or some pertinent relationships left unexplored. Synoptic elements should be a feature of the answer and seen to be meeting the questions requirements. Some possibly rather uncritical reference to theory; some reference to awareness of human perspectives and decisions taking on geographical issues and problems. Argues well, but organisation may be suspect in places. Support is invariably there, but may not always be detailed. A competent essay style. Effective communication skills with accurate spelling, punctuation and grammar.

13 – 18

A satisfactory answer ranging down to the mediocre, which always attempts, but not always succeeds to be relevant. Lacking in evaluation. Displays a reasonable grasp of knowledge, but understanding is suspect in places. Relevant theory and concepts might be mentioned but with basic uncritical application. The interconnections and relationships between different physical and/or human processes are briefly mentioned but understanding of their significance is limited. There is some synoptic content that is relevant to the question. Argument and analysis are partial and become less significant in relation to mere description. Increasingly unbalanced as an answer, and the logic and organisation are clearly deficient. Support is not detailed here, occasionally inaccurate and barely consistent. The bare bones of an essay format. Appropriate communication skills so that meaning is almost invariably clear with adequate language skills. Possibly some spelling/punctuation/grammar errors.

7 – 12

A very mediocre answer which is only occasionally relevant to both the theme and the demands of the question. Decidedly deficient in knowledge and understanding with only simplistic notion of relevant theory and concepts. Little if any relevance to inter-relationships between physical and/or human processes and factors or subject matter from other elements in the specification. Increasing irrelevance in a predominantly descriptive context. Clearly lacks an ability to organise material and may drift into another answer. Support is scanty and usually suspect. A weak, barely perceptible, essay format. Basic communication skills – many spelling errors and/or oddities of grammar and punctuation.

1 – 6

A very weak answer, which shows little, attempt to follow the theme and the demands of the question. A very low level of knowledge and understanding, with even the simplest of concepts avoided. Very inaccurate and may completely miss the point. No idea of how to organise material with haphazard format, evidence of guesswork and little or no support. No attempt at an essay format. Little or no language and communication skills. Many errors in spelling, punctuation and grammar.

Question 4

When management coastal environments it is always better to work with nature rather than against it. How far do you agree with this view? Discuss the view that coastal environments change over time for many and varied reasons.

This question is intended to enable candidates to engage in broad human and physical geographical themes represented elsewhere in the specification (and quite possibly and creditably from outside the specification as well) from a *Coast processes and problems* specialisation. It should enable the introduction and elaboration of such human and physical geographical themes and allow for the human environment relationship to be explored. The response can be exemplified and illustrated at a variety of scale and contexts and the assigned task enables a discussion of values and policy aspects to be incorporated.

See generic scheme for criteria band - examiners are reminded that clear synoptic content is required for credit of 19 and over. However, it is difficult to imagine an answer of reasonable quality without some synoptic content.

Appropriate content might include:

- The nature of coastal management methods/techniques, including a variety of strategies and techniques and purposes including erosion protection, flood protection, landscape/eco-system conversation, for economic purposes such as tourism and navigation and port facilities in a variety of environments. Legitimate distinctions might be made between hard and soft engineering approaches and so on. Clearly, however, the response must move beyond this and in total, this material should in no way dominate the response.

- The idea of working with rather than against nature, might be explored through the use of natural systems concepts and responses should show familiarity with relevant terminology and concepts. An outline of natural cycles of erosion transportation and deposition in relation to cliff retreat or salt marsh formation or similar, might creditably be included, perhaps leading to the opportunities and reasons for intervention. The interconnected nature of coastal systems/environments might be reviewed with ideas of coastal cells, knock on effects of intervention and so on.

- Putting the issue in the wider context of manageability, the power and magnitude of at least some of the natural systems being managed might prompt the issue of sustainability to be considered. Cost-benefit analysis and terminology may prompt a review of whether it is better in some, all or no circumstances, to work with or against nature.

- Illustration of themes is possible from a wide variety of spatial/regional settings and types of coastal environment - cliffs, estuaries, dune systems, high energy/low energy and so on.

Synoptic elements will be signified by content such as:

- Variations in the validity of the view connected to conditions prevalent in different environments and influencing complexity scale of coastal systems and how these are variable from place to place.

- Difficulties associated with availability of resources/know how/technology associated with the cultural predisposition, willingness and technological/economic capacity to engage in management, human value judgements or priorities, especially as between different goals, available resources and perceptions of opportunity costs.

- Case study material/exemplars might come from anywhere. Valid comparisons and contrasts for example as between LEDCs and MEDCs will inform a response and give it substance and credibility. Contrasting examples are extremely likely to produce synopticity, etc.

The question clearly requires a discussion approach and in the response the candidate should come to a view - any conclusion is creditable as long as it is reasonable and related to the preceding contents and discussion. We might expect that the great majority of candidates would be expected to agree with the view. However, candidates who argue that there will be/may be some circumstances in which it is worthwhile going against nature should not be penalised if the view expressed is supported by the proceeding content.

Question 5

Knowledge of plate tectonics does not just help in understanding many geographical processes and features but also in managing them. How far do you agree with this view?

This question is intended to enable candidates to engage in broad human and physical geographical themes represented elsewhere in the specification and quite possibly and creditably from outside the specification as well from a *geomorphological processes and hazards* specialisation. It should enable the introduction and elaboration of such human and physical geographical themes and allow for the human environment relationship to be explored. The response can be exemplified and illustrated at a variety of scale and contexts and the assigned task enables a discussion of values and policy aspects to be incorporated.

See generic scheme for criteria band - examiners are reminded that clear synoptic content is required for credit of 19 and over. However, it is difficult to imagine an answer of reasonable quality without some synoptic content.

Appropriate content should include an accurate and secure review of the theory of plate tectonics to include earth structure, mantle convection currents, sea floor spreading, tectonic plates, crustal creation and destruction, constructive, destructive and conservative margins with reference to evidence and so on. This content should then be related to the idea of understanding and management explicitly either interweaving the discussion with the outline of theory or in separate/discrete section(s) of the response.

- Geographical processes might include vulcanicity and seismicity attracting comment under both understanding and management. The plate tectonic focus is likely to focus responses on these particular aspects.

- Features rather than processes might similarly be concentrated on major relief features of the earth's crust to include, mid oceanic ridges, abyssal plains, ocean trenches, island arcs, high/young fold mountain ranges.

- Processes might reasonably (and synoptically) extend into other types of geomorphic processes (weathering, mass movement, fluvial, glacial, etc) and other categories of process, including atmospheric, ecological where more or less direct links can be made between plate tectonics via its impact on topography, climate and weather, etc.) Of course a sceptical view might be taken, in passing at least, on the role of plate tectonic knowledge in understanding many other geographical processes and features - such statements are perfectly creditable where they clearly contribute to a debate on the statement under discussion.

- References to human aspects, processes, e.g. of settlement and development, features, e.g. distributions of population and economic activity such as agriculture, tourism, etc., with varying amounts, densities, intensities, exposure to/risk of hazards and so on might justifiably form prominent elements in the response.

- Management aspects can be expected to cover different general approaches to risk/hazard management with specific exemplification and illustration securely related to relevant processes and features. Management may also legitimately include informed resource development for settlement and economic development - tourism, geothermal energy development and so on.

Case study material/exemplars might come from anywhere. In offering valid comparison and contrasts, which inform a response and give it substance and credibility the potential of making broad and specific comparisons between LEDCs and MEDCs. Contrasting examples are extremely likely to produce synopticity.

Synopticity will be indicated generally by the breadth and depth of the response in terms of the processes and features covered and more specifically by references to capacities and willingness to understand and manage in different spatial contexts with likely and creditable emphasis on levels of economic and technological development and different human perspectives on natural events and features.

Clearly an accurate secure and detailed account of plate tectonic is a firm basis for a response but if the response comprises only an outline of theory without relating to question - maximum 12. If such a response has concluding comment which relates the account briefly to the terms of the question (understanding and management) maximum - 18. Responses which cover one rather than both of understanding and management - maximum 24.

The question clearly requires an analytical approach, which contains an argument, and the response should come to a view - any conclusion is creditable as long as it is reasonable and related to the preceding contents and discussion.

Both processes and features required for top band.

Question 6

This question is intended to enable candidates to engage in broad human and physical geographical themes represented elsewhere in the specification and quite possibly and creditably from outside the specification as well from a *cold environments and human activity* specialisation. It should enable the introduction and elaboration of such human and physical geographical themes and allow for the human environment relationship to be explored. The response can be exemplified and illustrated at a variety of scale and contexts and the assigned task enables a discussion of values and policy aspects to be incorporated.

See generic scheme for criteria band – examiners are reminded that clear synoptic content is required for credit of 19 and over. However it is difficult to imagine an answer of reasonable quality without some synoptic content.

Form and character could be seen in purely physical terms, but character in particular might perfectly include human aspects such as land use, settlement patterns and so on. It is important to bear in mind that the response to this task could be purely physical and remain synoptic by the incorporation in some depth and detail of fluvial processes for example and/or an exploration of ecological and/or climatic aspects.

Appropriate content might include the following:

- A review of the form - primarily in physical terms of glaciated landscapes - this could be typical glaciated uplands and/or lowlands, landscapes predominantly or erosion or deposition and so on. Credit should be given for any landscape as long as it is the product of previous glaciation. Periglacial landscapes can be expected to figure but they will need clearly to have been previously glaciated.

- A sound and secure outline of glacial and periglacial processes relevant to the chosen environment (s) should be supplied, perhaps with an emphasis on erosion or deposition or an emphasis on periglacial rather than glacial - depending on the setting.

Responses that convey detailed understanding of only the role of glacial and periglacial processes should be limited to maximum of 18 - apart from being an incomplete answer they are unlikely to be synoptic.

- Review of other factors and processes in the development of glaciated landscapes should be included and credited. This might include more general fluvial processes, weathering and mass movement not conventially associated with glaciation/periglaciation. Similarly, an exploration of ecological processes, atmospheric processes including typical climatic conditions and so on might also contribute to understanding both form and character.

- A review of human aspects including traditional and more modern patterns of human occupation and economic development will also contribute to conveying character. Creditable content and emphasis would depend on the chosen environment(s) and human impacts on character should not be over-emphasised in areas such as the Antarctic.

Synoptic content will be signified by the breadth and depth of the response particularly where it extends beyond the narrowly glacial and periglacial. A more critical view of the notion that there are really distinctively and exclusively glacial/periglacial processes would signal wider and deeper thinking and could be perfectly justified in relation to the more generic processes of weathering, mass movement and involving the role of water.

The "to what extent" element should be addressed in the conclusion by coming to a measured and reasonable conclusion clearly related to the preceding discussion.