

A-LEVEL GEOGRAPHY

7037/1 Physical geography Report on the Examination

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General

We have now had multiple examinations of the 7037 specification and all stakeholders are well used to the format and structure of the papers. Over 14,000 students sat 7037/1 and this is an increase on the last full sitting of this paper in 2019. Students had a range of exemplar questions from both specimen assessment materials and recent AS / A Level papers. The Centre Assessed Grades of the last two years meant that no summer series occurred. However, resits were available and this has produced additional papers for centres to use as preparation for future series.

The structure of the paper was identical to previous papers and the targeting of assessment objectives was also very similar.

In summary, short tariff questions (4 marks) targeted AO1 only i.e. knowledge and recall. There were two resource-based questions: one type targeted AO3 (geographical skills and analysis of data) and the other type targeted AO1 and AO2 (knowledge and understanding applied in unfamiliar contexts). 9- and 20-mark questions targeted both AO1 and AO2 (with specific focus upon links within the specification which are not specified). There is always one question each series which targets AO2 and specifically tests links across specification units. This question type was found on Paper 2 in this series (questions 3.4/4.4/5.4 in the optional units).

Students should note that synopticity was tested through the application of knowledge both to unfamiliar situations and by exploring links within / across specification units. Students were required to 'think on their feet' in the examination and apply their knowledge and understanding to the context of the question. Students who recited learned material irrespective of the question set, were likely to score low marks on questions which tested AO2. This is because the AO2 type extended writing questions were not derived from only one part of the specification. These questions were a blend of content from within one specification unit or across specification units.

This particular series saw the first use of Advanced Information (AI). This provided additional information about the content of the specification that formed the basis of the questions. It did appear to help and it was noticeable that many students were very well prepared for the examination.

The mean mark for this paper was 63 (53%). This examination has allowed the strongest students to score well over 100 marks out of the 120 available with many comfortably achieving Level 3 and Level 4 on the corresponding 9- and 20-mark questions. Typically, over 12% of students accessed Level 4 on 20-mark questions. This again shows that many were well prepared and that the paper was very accessible.

The number of students answering questions across the optional units was slightly different this year when compared to previous series. The Hot Deserts unit was the least popular in Section B, with a very small uptake. Glaciation is normally more popular, but this year had only a few hundred more responses than Deserts. We hypothesise that this may be due to a lack of fieldwork opportunities and that this made the glaciation unit less attractive for teachers. The overwhelming favourite was once again the Coasts unit. In Section C, almost all centres opt for Hazards, with only a very small percentage opting for Ecosystems. However, it is important to stress that these optional units on Section B and Section C do perform comparably. There were minor differences in performance on each comparable question with no overall trends, indicating that that students had were able to access marks whichever question they opted for.

Writing stamina appeared to be less of an issue this year, though rubric infringements did feature more than in the past series. Students need reminding exactly which units to attempt. Also, the papers are demanding and students need to allocate time effectively across all questions and options.

Some students continue to struggle with the different resource-based questions. On the 6-mark questions which tested geographical skills, many tried to apply knowledge with limited success. Equally on the 6 marks questions with novel situations, many simply lifted information from the resource without bringing anything new in their response i.e. applied knowledge – AO2. There is detailed guidance available to students who need support in understanding this on the <u>AQA</u> <u>website</u>.

Students also need to be aware that some skills questions will include evaluation of multiple sources. In this series, Question 3.2 compared the relative usefulness of two sources. Those who tried to analyse the data only scored little credit.

Overall, as with the last full series in 2019, the paper did successfully differentiate between students but it also demonstrated a need for some to hone their skills around responding to the very clearly different assessment objectives demanded by each question.

Question 01.1

This question was very accessible, scoring an average mark of 2.19. Most understand the concept of negative feedback with a clear definition. The typical approach was then to offer an example. Most went with the idea of increased carbon promoting vegetation growth and returning carbon to the biosphere. Other considered the role of phytoplankton in restoring the dynamic equilibrium of the carbon cycle. This was also valid.

Question 01.2

This question differentiated well. Weaker responses magnified small details on the map and wrote at length without trying to identifying patterns, trends or anomalies. Stronger responses tried to manipulate data, look for patterns in varying ice thickness / water equivalent and link to cause where possible. Others noted that it was hard to identify patterns and to some extent that was true, making this a valid comment.

Question 01.3

The average mark was 3 for this question. The main issue holding back weaker responses was that many thought it was a AO3 skills question, rather than an application of knowledge AO1/AO2 question. For those responses, the challenges simply did not feature. Those responses that related the reduction of forest cover to a whole plethora of challenges around habitat loss, species diversity issues, soil related issues and climate challenges, readily scored marks and accessed Level 2.

Question 01.4

Most understood that this was essentially a question about mitigation versus adaptation in relation to increased atmospheric carbon. Those arguing for mitigation considered a whole range of strategies ranging from electric cars, carbon capture and storage as well as global agreements. Adaptation was probably less well covered. Students mainly considered agricultural changes, coastal management and changes in settlements to cope with warmer temperature and less predictable weather patterns.

Question 02.1

This was a very straightforward and accessible questions. Responses that were well prepared easily scored all available marks. Precipitation, aquifers, rivers originating outside the area, morning dew and fog all featured in such responses. As it was an AO1 question, students either knew the answer or they did not.

Question 02.2

The challenge in this question was to draw comparisons and relationships between the rainfall data and the temperature data in Australia. There were some clear connections but also plenty of anomalies. Some dealt with each resource in turn and made the connections in their second paragraph. A better approach was to make specific comparative comments. Those who dealt with each resource in turn with no connections did not gain credit.

Question 02.3

Most understood that this was a ventifact though we did credit reference to yardangs. Wind is clearly a factor and particularly its abrasive power. Not many picked up the other important factors such as the absence of vegetation, the climate, the rock type and source of sediment for example. Nevertheless, the average mark was 3.13 which compares favourably with the other resource based AO1/AO2 questions.

Question 02.4

Weaker responses never really got to grips with the theme and demands of the question. It suggests that more work is needed in terms of understanding the systems approach in this part of physical geography. Successful responses considered the water cycle as a key input of precipitation as well as the need to try to stop water leaving the system. Stronger responses considered ideas initiatives such as the Great Green Wall as attempts to interfere with natural systems to stop deserts encroaching into semi-arid environments.

Question 03.1

Many were well prepared and started their responses by considering glacial erosion as a key factor in shaping the trough prior to submergence and eustatic sea level change. Others considered possible isostatic readjustment. These were all valid approaches. Weaker answers simply described the characteristics and not the processes / factors leading to formation.

Question 03.2

These AO3 questions can require students to evaluate as well as analyse data. Students can therefore be required to assess the usefulness of sources in displaying information. This is clearly distinct from analysing data and many did not read the question carefully. As a result, they scored few marks where they simply analysed data. Even where they did try to evaluate, some simple opportunities were missed. Responses could have successfully referenced the different timescales, the presence of longitude and latitude, the difference in the two keys and the curious way that the landmass was shown in **Figure 5a**. It would be helpful to ensure that students are given opportunity to practise these types of AO3 questions as well as those that require analysis.

Question 03.3

Many quickly established that this is a mudflat and saltmarsh area in an estuary. Those that did, readily accessed credit with some sound argument around the importance of different factors. Many argued that it is actually the vegetation being highly adapted and trapping sediment which is the most important factor. Students were free to argue their own position as long as there was a sustained line of reasoning.

Question 03.4

A small number missed the context of the question and wrote about a British case study. The mean mark was 11.47. Most chose Bangladesh (the Sundarbans), the Maldives or India (Odisha). Some responses were a little narrative in approach, writing about the challenges and issues facing the coastal regions without necessarily focusing on the question. More effective responses concentrated on the role of human intervention (intended or otherwise) and how this has affected the landscape. Coastal management (ICZMs), afforestation, fishing and tourism tended to feature here. Others contrasted this with natural processes and made broader links to global warming and its impact. This was also creditworthy.

Question 04.1

Students seem to perform less well on this question generally. As with other AO1 only questions, those that had the knowledge, readily scored high marks. For example, over 20% scored all four marks.

Question 04.2

This resource differentiated fairly well. There were two distinct elements to the data: the distribution of glaciers in this region and the changing mass balance of the different types of glacier. There were plenty of different ways to access the credit and plenty of data to analyse. Some were really confused by what the graph element was displaying and this held them back. More sophisticated responses looked at patterns and picked out anomalies with data used to support.

Question 04.3

Those that identified Striding Edge as an arete, readily accessed the marks. They were able to bring in their knowledge of corries and arete formation and the interaction between two landforms in the glaciated landscape. We did ask for an assessment of the role of erosion and some forgot to do this. Others brought in factors such as the role of rock type and other processes such as weathering. These were inevitably stronger responses provided there was some assessment.

Question 04.4

It was good to see many international examples used by the students who attempted this unit. Svalbard, the Alps and Alaska were the main choices and these were all valid exemplars. It is very important that when teachers select case studies, they chose examples where there are plenty of issues and exemplifications of the subject content. The question gave scope to explore both more and less sustainable practice in cold environments. Many took this opportunity and tried to consider how the future might be more positive than the present trajectory suggests. As long as there was a sustained line of reasoning and the conclusion was based on the preceding content, then this was a route to success.

Question 05.1

It was surprising to note that many of the students did not know what a mudflow was in the context of volcanic hazards. Some drifted into the characteristics of mudflows and the damage they can cause without actually addressing the factors leading to the formation of them. There was no credit for this.

Question 05.2

This was a straightforward resource, but with plenty of information to digest and analyse. Those that spotted patterns, performed a few calculations to support the patterns, and identified anomalies, generally scored well. Some produced slightly more complex calculations working out ranges, total donations and even averages. These were features of Level 2 responses. Those that lifted individual data, referencing little more than lowest and highest donations for example, generally struggle to get out of Level 1. The average mark was 3.52 suggesting that this was an accessible question.

Question 05.3

This was probably the least well answered question on the entire paper despite having had similar questions before. Students need to digest the information and think as a manager working in the area trying to address the challenges. Too many simply analysed the data and did not consider the management challenges. Many drew comparisons with Hurricane Katrina and this was useful. However, the management challenges of evacuation, scale of area affected, likely thin spread of emergency services, communication issues, protecting livelihoods and properties, simply did not feature enough. Students would benefit from engaging with the mark schemes when practising for these sorts of question in the future.

Question 05.4

Students generally found this to be an accessible question. Many had prepared well and wrote confidently about what prediction actually means in the context of wildfire. They also contrasted this with other approaches around planning, preparation and mitigation. Case studies also complimented the responses with content related to Australia (Black Friday) and Canada (Fort McMurray).

Question 05.5

This was another highly accessible question which allowed students full access of the mark range depending on their preparation. The main differentiators related to the depth of support and the quality of the argument. Most agreed with the statement, though some considered the super volcano concept or Pinatubo eruption as evidence of global impact, thus challenging the statement. In this sense, they split predictability and scale and produced quite sophisticated responses.

Question 06.1

The few who attempted this unit found this question to be relatively accessible with a mean mark of 2.24. Most were able to define climatic climax with relative ease. This was often related to the concept of dynamic equilibrium in the biosphere. Stronger responses related the climax to the stages in succession. Approximately 15% then went on to score full marks with this sort of approach.

Question 06.2

There was plenty to analyse in this question. Stronger responses took an overview of the trends and patterns and then used some data to exemplify. Manipulation of data was relatively easy to perform but some seemed to do this without connecting to patterns or anomalies. It was also possible to connect different aspects of the data e.g. the dot maps and pie charts. This is a key feature of a Level 2 response and some need more practice on this skill. Helpful.

Question 06.3

There was plenty of evidence that the issues facing the Savanna can only really lead to the conclusion that current human activity is highly unsustainable, not least due to the dramatic decline in big game. Some brought in their knowledge and understanding of the impact of farming on the biodiversity and soils and this was an effective approach. Those who described / analysed the data without applying their own knowledge or drawing a conclusion on the implications of the data, scored little or no credit.

Question 06.4

Most were able to describe the climate, vegetation and soils of the temperate deciduous woodland but the question was about the interconnections. For this, students needed to show understanding of how climate affects vegetation and how vegetation affects the development of the brown earth soils. There was also opportunity to relate this to nutrient cycling and exemplify this with the carbon cycle for example.

Question 06.5

The local scale case study was generally well understood and case studies were readily available for the small number who attempted this option. The underlying focus was that of sustainability and weaker responses never really picked this up. Instead the responses simply described a learned case study. This could still score reasonable marks for AO1 but little credit for AO2. This became a feature of a partial L2 response. It was the evaluative comment which raised responses to Level 3 and Level 4, especially where the case study was appropriately detailed.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the <u>Results Statistics</u> page of the AQA Website.