



General Certificate of Education

Geography 6036

Specification B

GGB4 Global Change

Report on the Examination

2007 examination - January series

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General

Only a small number of candidates, below 300, took this unit. Within this small number, there were some excellent responses from some candidates but also some very poor ones from others. There were few incidences of rubric contravention, often only where candidates answered all four questions, and in such circumstances, the better one for each section is counted. In terms of popularity, in Section A, Question 2 was far more popular as only six candidates answered Question 1, and in Section B, Question 4 was more popular than Question 3 in the proportion of 2:1. In terms of relative performance, there was little variation in the median marks for the two questions in each section. In Section A, the median marks for Questions 1 and 2 were 13 and 12 respectively, and in Section B, the median mark was 15 for both Questions 3 and 4. As can be inferred from these figures, the mean marks were higher this session in comparison with previous January series. There are two reasons for this. Firstly, Examiners felt that all questions were accessible to candidates, and in the great majority of cases, candidates wrote two appropriate responses to their chosen questions. Secondly, in Section A, both questions carried two 5 mark sections. For each of these the mark scheme was adjusted such that the Level 1 range became 0 to 3 marks (previously 0 to 2 marks), with Level 2, starting at 4 marks. The outcome of this relatively minor change to the mark scheme was that marks were raised for all candidates.

It is normally the case that general issues and concerns are addressed in the earlier sections of such a Report. Bearing in mind the small nature of the entry, such issues and concerns will be addressed at greater length within the sections dealing with individual questions. However, one common theme should be stated at this point – those candidates who provide an appropriate A2 level of response, with, for example, good use of case study material, and sophisticated discussion of processes will gain higher marks. Candidates who construct their answers simplistically throughout can only gain lower marks.

The questions will now be examined in turn.

Section A

Question 1

As stated earlier, only six candidates answered this question, with two of these being rubric contraventions. Consequently, detailed feedback on this question will not be given. However, it was apparent that all the candidates who attempted this question struggled to answer part (b) and, to a lesser extent, part (c). These both assessed theoretical elements of the specification on soils, and their lack of understanding was apparent.

Question 2

Part (a) was, on the whole, answered poorly. Many candidates failed to appreciate the word “global” in the question, tending to give generic locations, such as plate boundaries, or names of specific volcanoes and/or earthquakes, rather than giving an overview of the pattern of activity around the world. Hence, candidates who named the Pacific Ring of Fire gained Level 1 credit, but if they then developed their answer to describe the various locations that make up that global phenomenon then they would have progressed to Level 2. Many candidates only accessed Level 2 by referring to hotspots, and in particular the hotspot activity around Hawaii. This was, of course, only applicable to “volcanoes” rather than to “earthquakes”. There was good knowledge and understanding of processes demonstrated for these aspects of tectonic activity that surprisingly was not matched by knowledge and understanding of the distribution of the more tectonically active areas in the world.

Many answers to part (b) were also disappointing. The great majority of answers were very general, and non-specific. The key element of the question was “reasons”, which many

candidates had already given in (a). Candidates were expected to write of the processes that cause their chosen hazard. For example, for volcanoes, Level I credit was awarded for subduction, the melting and subsequent rising of oceanic crust, and the creation of andesitic volcanoes. Level 2 credit was given to precise detail of named plates and named volcanoes/earthquakes that have been occurred at an identified plate boundary. There was a great deal of scope to gain good marks here, yet few did.

Parts (c) and (d) will be commented upon together. There was a clear requirement in (c) to refer to an example or examples studied, and too many candidates failed to do so. Consequently, their answers did not move beyond the general, giving statements of effects that could apply to any earthquake or volcanic eruption. Such an account is not acceptable at A2, and will not move beyond Level I. Candidates who could describe the precise effects of the Kobe earthquake, or of Mount Pinatubo, immediately accessed Level 2 and gained further credit as their answer progressed along similar lines. Another issue concerned those candidates who tried to attribute inappropriate effects to named examples, which were false. Good examples of this were those candidates who described the devastating impact of lava flows from Mount St Helens, or from Mount Souffriere. There were no lava flows in these eruptions. Similarly, death is frequently associated with these events, but candidates should ensure that the figure given of deaths approaches reality. The same principles were utilised in (d), where although named examples of hazards were not required, the candidates had to provide some specific detail of management strategies that went beyond evacuation, monitoring and relying on fate.

Finally, and once again returning to volcanoes, the question concerned hazards and their management. Hence, to write that volcanoes provide fertile soil and potential for tourist activity is not to describe their effects as a hazard. Such material is neither relevant nor creditworthy.

Section B

Before discussing each of the essays in turn, there are two points in general that need to be made.

The first concerns the design of the tasks in this section. The essays will always provide guidance to the student as to how the task should be completed. This guidance is given in the form of bullet points. These bullet points are also mirrored in the mark scheme – candidates will be assessed according to the degree to which they have satisfied the requirements in the bullet points. Therefore, candidates should be instructed to follow the logic of the bullet points in the construction of their essay, and in addition not to venture too far away from them.

The second concerns the context of the essays in any one series. It is a requirement that all of the specification will be assessed within a three year period – that is within six series of examination papers. Centres are reminded that there are no peripheral areas of the specification; all aspects will be assessed at some point.

Question 3

Candidates who knew the climatic changes that had taken place in the British Isles since the Pleistocene Ice Age in detail and quoted clear chronological changes of temperature and precipitation from 10/15000 years BP to the present day were able to access Level III for the first bullet point. Level 2 was awarded to those candidates who gave some detailed description of climatic changes with either a clear sense of time or sequencing. An example of this would have included an accurate reference to the “Little Ice Age” in medieval times. This was a general statement to make, but candidates either knew this part of the question well, or they did not.

Responses to the second bullet point showed more variety of quality. Less able candidates simply gave a list of various techniques for measuring climatic changes, whereas better candidates were able to give detailed explanation of how the technique demonstrated climatic change. Candidates who were able to do this for a variety of techniques again accessed the Level 3 range of credit. Examples of techniques quoted included dendrochronology, pollen analysis and isotope analysis. The latter proved to be quite challenging for some, with some very complex explanations being offered. In some cases it was difficult to be sure that the candidate fully understood what they were endeavouring to explain. Two concerns need to be addressed here. Firstly, some candidates quoted historical sources as being evidence. This initially appeared correct, but unfortunately, many did not go on and explain how the historical sources give evidence of climatic change. Those who referred to written accounts, or paintings (not photographs!) of people skating on frozen rivers and Dutch waterways gained credit for an appropriate use of this source. Secondly, a number of candidates referred to carbon dating techniques. These could only be of relevance when linked to another source re climatic change. The dating of pieces of evidence provides information of age only, not of climatic change.

Surprisingly, it was the third bullet point of this question that caused the most difficulties for candidates. Many gave simplistic accounts of the causes of global warming and its effects. Many of these accounts were not at a level above that of GCSE, and hence could not progress beyond Level 2. To access Level 3 here, more detailed accounts were required. For example, the precise origins of the increases in carbon dioxide, nitrous oxide and methane (such as the increase in the number of wetlands, cattle ranching and rice growing) were required. Similarly, more detailed effects in the context of the British Isles (as stated in the initial statement) were required to access Level 3. For example, references to the potential effect on tourism in the UK: a "Mediterranean" south coast, or a damaging effect on the Scottish skiing industry; or to an increase in mosquito related diseases in the country, as both temperatures and marshland areas increase in size, were required. One other issue is of concern here, and that was the frequent references to the ozone layer and its depletion. This is not a cause of global warming, and neither is the prospect of increased rates of skin cancer an effect of global warming. All references to ozone depletion were considered irrelevant. This maybe another important environmental issue facing the world, but it is not applicable to this specification.

Question 4

Whereas in the past this question has not been answered well, it is pleasing to report that in this examination series there were significantly more high quality responses. Countries selected included Italy, Brazil, Mexico and China. From the outset, the key discriminator was the depth of knowledge and understanding of the core / periphery relationship within the identified country, and its impact on national development. Candidates were able to access Level II by naming specific areas of either the core or periphery, and indeed of other areas within that country where economic development had, or had not, taken place.

Similarly, within the third bullet point, Level 2 was awarded for some statement of the policies put in place to address the issues that have arisen. In both cases, Level 3 was attained by well-developed geographical detail of either the core, or the peripheral areas, or of resource frontiers, or by offering details of temporal change in the core / periphery relationship. Likewise, this level was also attained by a detailed outline of a range of strategies that sought to address the imbalances in socio-economic conditions within the chosen country. In addition, within the third bullet point, any basic statements of success or otherwise of any of the policies and strategies offered accessed Level II, whereas comments that demonstrated a higher level of understanding of the success or otherwise accessed Level 3. In practice, these tended to feature comments which stated short-term benefits, for example employment created by new industrial enterprises, followed by longer-term assessments of the same schemes. By definition, these comments introduced a temporal element to the evaluation of success.

Similarly, those candidates who offered comments on the benefits and costs of the government policies were able to access this higher level.

Finally, it is also pleasing to record that in the cases of some well-documented examples, such as Italy, centres had clearly brought the case study up to date. Here students not only wrote of the ill-fated Cassa per il Mezzogiorno, with some evaluation of its success, they also wrote of more recent initiatives, often linked to European Union involvement. It is reassuring to note that centres are recognising the evolving nature of the specification and its emphasis on change within the last 30 years.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results statistics](#) page of the AQA Website.