



General Certificate of Secondary Education

Geography 40301

Specification A

40301H Full Course

Report on the Examination

2010 examination - June series

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General

This was the first Higher Tier physical options examination on the new AQA GCSE Geography A specification. Unlike its predecessor paper 3031/1H, geographical skills questions were integrated into the content based questions. The Restless Earth was the most popular question in Section A followed by Water on the Land and The Coastal Zone in Section B. As a result of its modular nature, this first paper was sat exclusively by Year 10 students. At times, there was clear evidence of this as candidates struggled to engage with the questions and apply the knowledge that many clearly had. The same was true of skills aspects where candidates had difficulty describing the pertinent aspects of photographs as in 2(b)(i) or selecting appropriate map evidence, such as in 3(c)(i) and 4(b)(ii). Candidates struggled to make effective use of diagrams when describing changes as in 3(a) and 6(a). Candidates knew relevant case studies, but often did not target the information to the question asked, nor did they make specific enough use of the material they knew. Specific facts, figures or place names are needed to tie the content to the example and a more precise style of writing is required. There is a need to obey command words – for example ‘describe’ requires sufficient detail so that the place, feature, object being described can be visualised. This is different to list or identify, although candidates did not necessarily make this distinction. Often, candidates drifted into explanation when the command was describe or vice versa. For example, in 3(c)(ii) the command to describe was often ignored in favour of irrelevant explanation. Similarly, in 7(d) there was a need to explain why both hard and soft engineering strategies were used, not just describe them. The concepts given in the question also need careful consideration – for example the need to consider responses to a tsunami in 1(c), and not cause or effects. Next year, the cohort will consist of a mix of Year 10 and 11 and relative immaturity for the exam will be less apparent. There were clearly many candidates who were inexperienced in exam technique and floundered even where there was evidence of knowledge and understanding. This was largely due to the question being asked not being addressed. However, from a centre point of view, greater drilling of exam technique is essential if the modular system is to deliver – and take the pressure off Year 11. The following question by question report has a recurring theme – of the need to de-construct the question and to answer the question asked with a degree of precision.

SECTION A

Question 1 *The Restless Earth*

Almost all saw the significance of the plate boundaries in (a)(i). Many were able to identify clusters, such as along the west coast of the Americas, or to recognise the importance of destructive and/or conservative plate boundaries. However, there is a need to write precisely to convey accurate meaning – ‘most occur on Pacific plate’ is not the same as ‘many occur on the boundary of the Pacific plate’. The quality of diagrams was variable in 1(a)(ii). There was some confusion with constructive and destructive plate boundaries. Many opted for a plan view which was appropriate. There was a need to show the plates moving in a similar parallel direction. Many could identify a clear sequence in their labels relating to the culmination of the earthquake with the sudden release of the pressure that had built up. Some benefited by numbering their labels to make the sequence clear.

(b)(i) and (b)(ii) were generally well answered. Many located X accurately using the distance and direction given. Y proved straightforward for most (although identifying the point of intersection of the lines was incorrect). Many could locate Z in the south east section of the grid square, but struggled to pinpoint the location which was needed (within a limited margin) for

both marks. In (b)(iii), the points made rarely went beyond the general. Some related to the Richter scale or few buildings. Better responses made specific use of the map – recognising the presence of woodland. However, this information had to then be used to explain why there was little damage. Thus a ‘so’ statement would have been the anticipated follow up on recognising the absence of buildings/people etc. Where the map was used in conjunction with explanation, candidates produced some good responses.

In (c), the vast majority used the Indian Ocean tsunami of Boxing Day 2004. The very best answers categorised the responses in terms of time or scale/origin and supported this with reference to specific facts and figures. These were the hallmark of a level 3 answer. They were relatively rare as candidates were inexperienced in exam technique. Those who perceived what was required wrote about burying the dead in mass graves, the posting of photos to find loved ones and so on. Mentioning places such as Banda Aceh or Phuket was very rare, but it is good practice and should be encouraged. Immediate and long term responses were a frequent classification. Too many clearly had done the case study, but they wrote at length about the specific cause of the tsunami or its effects – which were not relevant to **this** question.

Question 2 Rocks, Resources and Scenery

There were some vague answers to (a)(i) as candidates either knew the answer or didn’t. Many were aware that an era is longer than a period and often referred to the subdivision into periods for the second mark. Some used the table effectively to indicate contrasting time scales.

In (b)(i), it was notable how many candidates disregarded the prominent limestone cliff, but focused on bedding planes and joints. Too many described tenuous aspects or referred to features that were clearly not on the photograph, such as limestone pavement and caverns. There is a clear need to develop this basic geographical skill of describing what can be seen in a photograph so that the reader can visualise the key features of the rock and landscape.

There were some very good answers to (b)(ii) with a clear sequence describing the process beginning with rainwater being a weak carbonic acid and noting the mixing of the water with carbon dioxide. This is not the same as acid rain – and this was not permissible. Some were clearly guessing; some noted the formation of the rock itself.

Few candidates entered level 2 on (c) as they did not make reference to the OS map. Often, candidates seemed to be answering a different question – describing the location or being distracted by the danger area, and there was some diversion to economic impacts and tourism. Responses were often basic, mentioning noise and dust without being developed to consider the source of the pollution. This was often the case even where Westbury had been identified and there was the potential for a level 2 response.

Hope quarry and cement works was a frequent case study in (d), but by no means the only one. Examples were known, but information was often not targeted to the question. There is a need to comply with the question requirements and consider how one case study can be used to consider management **both** during **and** after extraction. It is possible to refer to areas that have already been restored following extraction, even if the quarry itself is still operational. Two case studies of two different quarries did not meet the question requirements. Level 3 answers were seen but were rare due to the need for specific case study information – such as the planting of trees and the need for a greater degree of balance between during and after extraction. There was a need to link the strategy to the problem and this was a clear feature of a level 2 answer.

Question 3 Challenge of Weather and Climate

In (a)(i), there was a varied response. The map was poorly used overall as a resource. In fact many failed to look at the map at all to identify how the temperature varied. It was not just about making statements about specific locations. Many noted that it was cooler in the north or warmer in the south. Few noted the location of hottest or coldest areas and the change with

direction that was apparent. Some wrongly sought to explain here disregarding the command word describe and pre-empting the next question. In (a)(iii) there was only a basic idea of the factors responsible – often just lists of them or recognition that the south was ‘nearer the equator’. The best related the identified factor to the pattern observed and looked at the impact of latitude and the sea in summer

There was a wide range of responses to (b). Some just lifted relevant parts of the text, whilst better responses noted that it was clearly unusual. The best and those that accessed level 2 supported the notion of the weather being unusual/not normal by referring to relevant parts of the text and used the statistics effectively in support.

About a third of candidates correctly positioned an appropriate shape in (c)(i). This is not an easy skill – to cross reference the resources provided – but is a critical skill that needs developing. Some shaded on all areas of the sketch map – clearly going beyond what the question demanded, whilst others shaded randomly. There was a tendency to suggest why the area had flooded. The command word was not addressed and candidates often answered a different question. Those who did seek to answer the question were often very vague, picking minor features such as the church. There was reference to built-up areas, but little reference to the nature of the roads. Only the best sought to describe a picture of the area – many just listed features. Many also shifted their attention out of the relevant area, with much reference to the River Hull.

Few engaged with the global scale demanded by the question in part (d). The emphasis was frequently on a local or UK scale, where East Anglia and London were effectively used. References to the shrinking habitat of polar bears as a result of climate change were often a ticket into level 2. The best answers referred to, and offered specific support from, a range of areas including Antarctica, Bangladesh, Maldives, Canada and the Netherlands. Candidates did try to follow the structure given in the question regarding economic and environmental, but points often lacked appropriate development.

Question 4 *Living World*

In (a)(i), many merely described what was given in the figure e.g. caterpillars live in the tree and the birds eat them. This did not really address the main thrust of the question. Often the terminology used was colloquial and not always clear. Those who realised that the tree was the producer and described photosynthesis and subsequent stages in the food chain clearly engaged with the question. Few recognised the pivotal role of the tree and how it underpinned the whole food chain explicitly. A significant proportion disregarded the phrase ‘in the tree’ in the question and so wrote about any nutrients – often focusing on dead animals. The best responses appreciated the idea of the cycle and began with the tree and leaf fall and described subsequent stages. There was a recognition that the nutrients would be taken up by the roots and the cycle would begin again. Few referred to decomposers, despite the label in Figure 11.

The recreation activities demanded by the question were frequently absent in responses to (b)(ii). Many listed features whether or not they were in the forest. The camp site and golf course were particular distractions. There was a need to describe, not just list. The best responses identified the evidence on the map and the ensuing activity – such as walking on paths. Some strayed into management of the forest.

The skill of describing photographs proved to be problematic again here. Candidates need to describe what can actually be seen in the photographs provided. Often generic descriptions of desert vegetation were given with no reference in the photos. Some described how vegetation adapts to the climate – again not relevant here – and temperature, rather than rainfall, was

given as a reason. The best noted the changing vegetation – the presence of cactus in Figure 13 and the yellow flowers in Figure 14 and considered the effect of rainfall.

There were some candidates who selected a hot desert in a poorer part of the world, illustrating the need to read the question carefully. Water was often a focus and many answers were general, even when an appropriate case study was selected. The most common case study was south western USA. Some answers did have precise detail and referred to the developments within the national parks and retirement areas such as in Phoenix and the demand for water in places, such as Las Vegas. Again, there is a need for candidates to explicitly make the links between different aspects and not leave them implicit, assuming the examiner will make the links between separate sections for them.

SECTION B

Question 5 Water on the Land

Many were able to access full marks in (a). The best described the changing valley profile from being narrow, steep sided, V-shaped at the start, increasing in width in stages and becoming much wider, with low and gentle valley sides near the mouth. Some described a channel – which was acceptable, but some were under the misconception that the channel became wider, but also shallower.

The photograph here was much better described than the one in Question 2. A substantial number accessed the 3 marks available. There was recognition of the plunge pool and the gorge and the best responses noted the stepped profile and the steep drop. There were some very good responses to (b)(ii) where candidates drew either one, two or even three or four diagrams to identify the sequence and process involved in the formation of a waterfall. These diagrams were often effectively labelled. The position of the layers of hard and soft rock and differential erosion were recognised in a clear sequence by the best answers. By contrast, level 1 responses were disjointed and the sequence was unclear. They also showed some confusion with coastal cliffs.

In (c)(i), many candidates contrasted the peak discharge, the lag time and even the rising and falling limbs. There was little precise use of evidence (except for peak discharge), whilst some saw the lag time as from the start of the storm, rather than the peak rainfall. Some responses were so vague that credit could not be given – e.g. stating that the discharge was higher, rather than the peak discharge. Most recognised that rainfall was not the cause of the differences in 5(c)(ii) – some explicitly making this point. Factors such as vegetation cover, rock type, amount of built-up areas were valid suggestions. However, all too often the next steps in the sequence were not taken. There was a need to relate the presence of impermeable rock to increased runoff that would get to the river quicker.

Many identified areas of surplus and deficit in part (d). However, often there was little specific support – just a vague notion that it was wetter up north. The idea of transfer was often equally vague – sending it down south. Better responses quoted examples such as Lake Vrynwy supplying Liverpool. There was frequent drift into advantages and disadvantages of reservoirs or other uses of these areas of water. There was a need to make links and explain how reservoirs or reducing waste helped to meet the demand, not just a recognition of the ways demand was met. Some clearly explained how new technology was helping such as dual flush toilets and newer washing machines. At the other extreme, there were those who believed that we imported water or related demand to the production of bottled water.

Question 6 Ice on the Land

The lack of exam practice probably explains why relatively few could see the overall change in the ice cover – namely its reduction – and support this with evidence from Figure 17. There was a tendency to describe limited aspects or the maximum extent, rather than see the changes to the whole. Some sought to use latitude as evidence – many perceived the North Pole as being ice covered which is clearly not the case. Some described what they knew without reference to the diagram – quoting rates of change. In a different question, such information may have been valid, but not in this context. Many accessed 3 marks in (a)(ii), but not all. Some omitted the X and others were careless or imprecise in their positioning. Some placed Z in a period where part went above 15 degrees Celsius.

There were variable answers to (b). Weaker responses adopted a step by step approach describing the rise or looking at the start and end points only. Many struggled to have an overview. Where this was achieved and supported by evidence of the changes across the whole period, candidates were able to access level 2 with ease.

Answers to (c)(i) ranged from excellent to irrelevant. There were some that used appropriate terminology beyond that identified in the specification to give an accomplished account of the sources of material and the various places and ways in which ice carries the material. Many disregarded the bulldozing process. Others drifted into erosion processes and confused river transportation processes. Many recognised the importance of deposition in (c)(ii), but frequently this was the extent of the answer. Recognising particular types of moraine provided a structure for explanation. For example the presence of lateral moraine at the sides could be explained by material being weathered on the valley sides and falling onto the glacier. The need to identify a coherent sequence of events is the key to answering such questions effectively.

There was no requirement to use a case study in (d). However, some candidates chose to do so and this often enhanced their answers where there was specific reference to it. Chamonix in the French Alps was the most frequent choice, but Aviemore in Scotland was also used with regard to too little or unexpected high snowfall. Identifying a variety of economic and environmental effects was a good strategy as was considering the types of jobs and economic impacts on business specifically, with reference to knock-on effects such as young people leaving the area. Some considered strategies for dealing with less than expected snowfall. Weak answers noted jobs lost, shops closed and so on.

Question 7 The Coastal Zone

In (a), some clearly were aware of the process of mass movement and made pertinent statements relating to the movement of material down slope due to gravity. Sliding and slumping were recognised and the best distinguished between these. For others, there was a drift into reasons and confusion with weathering, erosion and longshore drift.

Various landforms were recognised in (b)(i), such as the stack, stump, cliff and wave cut platform. However, some missed marks by inaccurate positioning of arrows where the arrowhead did not clearly indicate the specified landform. Candidates must ensure that the feature is visible on the photograph and that it is landforms and not processes that are labelled, i.e. that they are labelling as directed by the question. There was a need to focus on the cliffs and wave cut platforms shown in the X rectangle and when candidates did this their responses were often sequential and purposeful. Some used diagrams to illustrate the sequence. However, too many explained the formation of headlands and bays and arches and stacks – none of which were evident in the rectangle.

In (c)(i), answers showed knowledge and understanding of global warming resulting in the melting of ice caps and a significant number considered the impact of warming on the water leading to thermal expansion. Some looked at the underlying causes of global warming. Weak responses talked vaguely about ice melting. Effective responses to 7(c)(ii) used areas such as the Maldives with a focus on the impact on the fishing industry and the impact on tourism of the airport being closed. For level 2 there had to be use of case study and an economic focus as demanded by the question. Weaker responses drifted into environmental effects and also tended to be generic. Some referred irrelevantly to river floods such as Boscastle and Carlisle.

Almost all candidates could describe hard and/or soft engineering strategies in (d). However, applying this knowledge to answer the question proved more problematic. The difference between the two strategies was not always clear. Many accessed level 2 by identifying advantages and disadvantages. These often centred on costs but also environmental considerations and their complementary nature was implicit. The diagram – Figure 22 – was underused. Only the best sought to really explain why areas such as Lyme Regis opt to use both strategies. Some validly used their own examples in support of the need for secure protection and a compromise regarding cost and environmental attractiveness.