

Version



**General Certificate of Secondary Education
June 2012**

Geography A

40301F

(Specification 4030)

Unit 1: Physical Geography (Foundation)

Report on the Examination

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General

All questions were done well by some students whilst others fared less well, indicating that the questions discriminated as anticipated. As on Higher Tier, the most popular combination was made up of Questions 1, 5 and 7. There were clearly differences in how the specification content had been approached and delivered between centres, and indeed within centres, and it appeared that in some cases students struggled with certain aspects of the specification. It is worth stating clearly at this point that it is **imperative** that **all** the content specified within a particular topic is taught. It may be that certain preferred elements are favoured by students and teachers alike but this does not mean that the rest of the specification content for that topic can be neglected. If it is in the specification content section then questions should be expected on that content. There is a requirement to ensure complete specification coverage within the lifetime of the specification so there should have been no surprises in the questions set providing there was adequate knowledge and coverage of the specification content.

Another element that impacted on exam performance related to the perennial need to de-construct the question. The following is an extract from last year's report:

“It is essential that candidates obey command words – for example, ‘describe’ requires writing about something so that it offers some detail/can be visualised. This is different to identification... Candidates must take the time to look at the question and take it apart so that they understand exactly what is wanted. Questions that involved the description of features present were often poorly done. Candidates need to practise how to describe – whether using words or labels, and be aware that only what is visible should be written about.”

There was evidence in student responses that this advice is not being followed. This was especially apparent on question 1(d). The command word was ‘Describe’ so students were expected to draw on their own knowledge and write about what was required, i.e. a description of the **effects** of earthquakes in contrasting parts of the world. ‘Effects’ invited students to describe impacts such as deaths, injuries, buildings and roads collapsing, and the question required that contrasts be drawn out between richer and poorer areas. Yet the vast majority of students answered a different question, covering either the *responses* rather than the effects or giving *reasons why* the effects were more severe in a poorer area. In both of these approaches, correct information was included but only incidentally as the responses did not answer the question that had been asked. As a result, many students scored at a relatively low level – possibly one or two marks for effects were teased out of an answer that focused on contrasts in building quality, the presence of earthquake drills etc. Therefore, it is important that students have a good understanding of command words and specific subject terminology.

The assessment of mapwork and other skills has always been integrated into this specification content. OS maps in this series were included in all Section B questions where there is an explicit attempt to ensure questions have a similar structure and, where appropriate, require similar skills. The OS map related questions were completed to a variable standard. Students who knew the basics fared well but others lost what should have been relatively straightforward marks. It is therefore worth revising the basics of grid references, direction, scale and use of key in preparation for the examination. When labelling maps, suggesting labels for parts of a photograph or describing attractions students must show clear use of the resource and, where there is a requirement to ‘mark with an arrow and label’, the arrow head must locate the specific feature and have a written identifier.

Students fared better this year at describing the formation of landforms or processes with a series of diagrams to support. It is important that the descriptions of, or references to, such resources reflect what is visible in them (though not too literally) and that a sentence is given in each box. There was also progress in the use of case studies and some students used them without an explicit requirement to do so in the final part of Question 1 - this approach should be encouraged. It was also encouraging that more took on board the need to include specific detail or material to access level 2 as this is a good, clear discriminator regarding the quality of the answer.

SECTION A

Question 1 The Restless Earth

Most were able to get the three marks available in 1(a)(i). Occasionally, some believed that there were ocean trenches off the African coast but this was unnecessarily careless given the information on the map, and this should remind students of the need to use the resources carefully. Students are also reminded of the need to tick the prescribed number of boxes – ticking more than required is self-penalising. 'Deep' was the most commonly recognised characteristic in 1(a)(ii) but other points were vague, often including 'long' and 'dark'. Better responses noted trenches occurred in long lines, near fold mountains or at destructive plate margins. The best responses in 1(a)(iii) expressed a clear sequence using the information displayed as a trigger. Some were too literal and described rocks falling into the sea in the first box, and some talked about deposition here, which was not the case. There was a need to use the first word which gave clues to the sequence. The plate movement was generally recognised in the third box and phrases such as rocks were pushed up, crumpled or squeezed together were effective in completing the sequence in the last box.

Responses to 1(b)(i) were variable – the exemplars provided should have been used as illustrations to inform what sort of answer might be given and then students needed to note what could be seen in Figure 3 with some accuracy. For the Epicentre element, some measured the distance from the word Haiti without seeming to be aware that this was the name of the island. Some correctly noted that it was near to Port au Prince. In the second space (Area affected by shockwaves), some were inaccurate and there was confusion between east and west. The central part of Italy and L'Aquila itself were sound responses here and, for the Faults box, the recognition of a single fault through the epicentre or two single faults was valid. Candidates should take time to study the resource carefully. 1(b)(ii) was fairly well done – the vast majority noted the scores on the Richter scale and often recognised that Haiti was stronger for 2 marks, with the best showing an awareness of the difference either by calculation or comment.

In 1(c), many understood that the Mercalli scale measured the observed effects of an earthquake. The better responses knew the range and could exemplify describing, for example, what V was in contrast to XII. There was some confusion with the Richter scale and the use of instruments.

The responses to part 1(d) were probably the most disappointing on the paper. The specification indicates the need to cover effects and responses to earthquakes in a rich and poorer area. This question focused on **effects** but the majority of answers disregarded this and launched into reasons for differences, rather than an account of how they were different, or they considered responses and how people dealt with the effects.

Question 2 Rocks, Resources and Scenery

Most students were able to access the marks in 2(a). However, whilst most identified the correct rock type in 2(b), fewer could explain why Carboniferous limestone is a sedimentary rock. Part 2(c) was well done with most putting the stages into the correct order. Occasionally one letter was used twice.

The description of the landforms shown in Figure 5 was poorly done. Students needed to recognise the escarpment/cuesta and vale that was shown and describe the contrasting slopes or the presence of springs and dry valleys. Many described features other than landforms such as land use. Often the escarpment was the only thing identified. Students fared better on 2(d)(ii) with a substantial proportion gaining all marks. There was some confusion regarding which eroded faster but there were clues in Figure 5 for those who looked back or remembered.

It is a requirement of the specification to cover a case study of a quarry, including its location. This did not generally appear to have been fulfilled as the response to 2(e) was poor. Many did not appear to know the name of a specific quarry as a starting point. Where this was known, there then had to be a description of where it was with a sense of place to support this. This was largely absent, but a name of a nearby town/village, road number or name, and whether there is a railway or whether it is on the edge of somewhere, etc. would be expected.

In contrast, 2(f) was answered better. Popular choices were the quarry owner and the school leaver in support of the quarry, and the local cafe owner and second home owner against the quarry. Poorer responses focused on jobs and money but better students developed their points with regard to the lack of alternative employment and the importance in helping the local economy. Arguments against

followed a similar pattern and some good contrasting responses were given regarding noise from traffic and blasting, or the dust and the level of visual intrusion for the second home owner in search of peace and a beautiful landscape.

Question 3 Challenge of Weather and Climate

Many gained the available marks in 3(a)(i). The range proved a stumbling block for some whilst others stated the first three months as being the wettest instead of looking along the graph. Part 3(a)(ii) was best completed when read in context as this gave a sense of changes. The last two marks proved more difficult to access and there was some confusion between the Atlantic and the Pacific Ocean. In 3(a)(iii), most identified the fact that Princetown was higher than St Mawgan but could not go on to explain the significance of this.

In 3(b), the description of weather during a summer anticyclone was poorly done. Many seemed to confuse it with a depression and, where there was an appreciation of what an anticyclone is, statements were often vague and limited. Only a minority gave a variety of points that linked together to describe the hot, dry conditions with sun in cloudless skies and the occasional reference to heat waves.

Knowledge seemed equally limited in 3(c) with no real awareness of the conditions in which tropical revolving storms form. There was some reference to warm seas and temperatures of 26 degrees Celsius but little more.

In 3(d)(i), it was often the case that only the eye was identified and, at times, the correct term was not used – alternatives offered, such as ‘centre’, did not gain any credit. Again, students need to describe what is present in the photo or image, such as the thick cloud at Z and the swirls of cloud denoting the anticlockwise movement at Y. There were some candidates who drifted to or even focused on effects in 3(d)(ii) as was seen in answers to the final part of Question 1. However, this did not occur here on the same scale as most did consider responses, with Hurricane Katrina as the most popular choice. The key to move from level 1 to level 2 was to refer specifically to the case study, for example, the recognition that thousands had been placed in the sports stadium (the Superdome in New Orleans in the context of responses). Many responses were generic and there is a requirement to use the case study to progress to level 2.

Question 4 Living World

The responses to 4(a)(i) were variable. By no means did all candidates pick up all 3 marks. Some circled energy whilst others saw the climate and soil as a two way, rather than a one way, link. Most recognised that decomposers were involved in the breaking down/rotting of plants and animals in 4(a)(ii). Many recognised the importance in recycling nutrients and allowing things to begin again or to continue. Some noted that decomposers are fungi and bacteria but there was some misconception that these ate the plants and animals. In 4(a)(iii), most candidates saw the sequence, recognising that drought would cause plants to struggle to grow and consequently there would be less food for the herbivores, causing the carnivores to then struggle to find enough food. Sometimes ideas were overstated, for example, indicating that everything would die, and the final statement proved more challenging with a need to recognise the impact of fewer plants to hold soil in place thus resulting in soil erosion.

In 4(b)(i), there was a need to describe the characteristics of the leaves, trunks and layers as shown in the photograph in Figure 12. Often these were not accurate if this was attempted. Phrases such as broad, tall and low growing or brambles attracted marks. Often, reasons were given or the function of these different parts and there was some confusion with tropical rainforest. The climate of areas of temperate deciduous woodland – clearly stated as part of the specification content - appeared not to be known by the vast majority. There was, again, confusion with tropical rainforest and many wrote in very vague terms and displayed no specific knowledge. Thus, suggestions that it was warm, cool and wet were common, with often no reference to seasons or change throughout the year, and supporting figures were almost non-existent despite their value.

In 4(c)(i), most identified a reason such as logging or farming but failed to comply with the command to ‘outline’. A brief description was needed and consideration of whether the wood was to be sold and for what, or for what type of farming. Some were aware of the strategies and what they entailed in part 4(c)(ii). Others were aware of sustainable management. However, some struggled to link the two

aspects and recognise how selective logging – restricting the number and type of trees that are felled - can lead to the preservation of the rainforest, not just providing a habitat for wildlife but also protecting the soil and ensuring a long term income.

SECTION B

Question 5 Water on the Land

Responses to 5(a) were somewhat disappointing. Students had 6 terms to choose from, two of which related to erosion rather than transportation, but fewer than expected achieved the full 4 marks here. Abrasion and attrition featured all too often, demonstrating a lack of basic knowledge of transportation processes. There was confusion between saltation and suspension and some appeared to place the terms randomly on the diagram.

In 5(b), there had to be some recognition of a change in conditions. Stating that the load was heavy was not creditworthy – it had been carried but what had happened to change this? Students gained marks by referring to a decrease in the amount of water and a drop in speed which meant less energy was available and so deposition occurred.

In 5(c), most were able to obtain the marks. The most common answer in 5(c)(i) was 20m showing use of the contour lines on the map. However, there were some very large figures that bore no relationship to what was evident on the map. Most recognised what happened at 411564, such as a tributary joining or the presence of a bridge. Some perceived that the river split but this was allowed as a valid observation from the map. Most noted the correct distance in 5(c)(ii) but there were a number that put 1km or significantly more. Part 5(c)(iv) was less well done with the 'describe' command largely being seen as 'identify'. Two marks were allowed for the recognition of any two features – usually the meander and embankment and then the flood plain. Many identified any feature that was present, irrespective of whether they were landforms.

Overall, the explanation of the flood plain formation in 5(d) was poorly done. It seemed as if students were not prepared for this landform in the way they would have been for a waterfall or a meander but it is just as much a part of the specification. Often, flood plains were described, or their advantages for agriculture or how they could be used for flood protection were given. In fact, some students included anything apart from what was needed. Some just noted that the river flooded but more was needed to attract credit. There had to be reference to the deposition process and why this happened with some detail and recognition of repetition for level 2. Some candidates did have this reference to sequence and process but they were all too rare.

Part 5(e)(i) was generally well done with candidates accessing the available marks. Boscastle, Tewkesbury, Carlisle and Bangladesh were common case studies in 5(e)(ii). Most did state a case study even if many included no specific information on this. This is essential for level 2 and candidates should practise this. There was some drift into responses to flooding rather than effects. Some answers were little more than lists of effects, whilst developing a range of generic effects could access the top of level 1. For level 2, there had to be range, linked statements and, importantly, something specific about the case study. For Boscastle, this may have been reference to people having to go onto their roofs; the cars – 116 of them – being washed down the river; the piling of cars and trees at the bridge; 58 buildings being flooded.

Question 6 Ice on the Land

Part 6(a) was generally well done with clues picked up from the diagrams: a recognition in the first box that water entered the cracks in the rock; the subsequent freezing and/or expansion in the second box; melting and/or a reduction in pressure in the third box; the repetition over time and/or the breaking off of bits of rock in the last box.

The correct compass direction was often not given in 6(b)(i) – some reversed it, others seemed almost random. Most could identify the steep slopes but few achieved the height mark as there had to be some idea of the exact height, not just 'high', whereas the recognition of 'steep' from the contours was enough for the slope aspect. Some failed to answer part 6(b)(iii) while others arrowed landforms but did not label them; some failed to be accurate in the positioning of the arrow head; some just guessed at any landforms – often rivers rather than ice-linked landforms. The best answers accurately located

and labelled features such as corrie tarn, arête, pyramidal peak, glacial trough and ribbon lake. It was rare to identify 3 different landforms – occasionally a corrie was labelled despite having already been given. A corrie is a favoured landform of glacial erosion but responses to 6(b)(iv) were variable and at times disappointing for a 4 mark question. Some believed that snow, not ice, was responsible for the corrie. Some described rather than explained. Some established – in detail – the formation of the ice but then stopped at this point. Others had an idea of the processes but could not link them clearly to the formation. The best had a clear sequence and were aware of the role of different processes such as freeze thaw weathering, plucking and abrasion, and where they occurred to form the corrie.

There was a requirement to describe the attractions in 6(c)(i), not just identify them, and candidates had to comply with this command to attract marks. They also had to refer initially to the attractions that were visible in the photograph before perhaps going on to link to activities. Thus, for X there may have been reference to the cable car to take people up to see the view. Many seemed to struggle with part (cii) as the people involved in the conflict – such as the tourists and the locals - were not identified with reference to litter, noise, crowding, parking problems.

Chamonix was the case study usually named in part 6(d) although often not subsequently used. Answers tended to be generic and at times list-like with regard to money, jobs, noise and traffic. More developed responses which described the impacts progressed through level 1. Some included both positives and negatives which was a good way of answering the question. The best made precise use of their case study by identifying the sort of jobs, like ski instructors or in hotels, that are on offer due to the 100,000 visitors per day in summer and the resulting footpath erosion.

Question 7 The Coastal Zone

A minority of students in part (a) apparently guessed the definitions but many achieved 3 out of the 4 marks. Here, there was confusion between abrasion and attrition. Students must ensure that the start and end of their lines is clear.

Most were able to transpose the feature found at the grid reference to identify the nature reserve in 7(b)(i). However, a significant number either guessed or got the wrong feature, such as the Bird Observatory or Old Den. The distance measured generally attracted at least one mark but two marks were relatively rare. There were many accurate sketches for the shape which began and ended in the correct places and followed the outline of the spit - which had to be joined to the land and not seen as an island. Often irrelevant detail was added, such as the location of roads and car parks, rather than specific features of the spit. Valid labels identified features evident on the map, such as the sandy beach, the shingle to the east and the narrowest part, rather than processes such as longshore drift. As with the flood plain in Question 5, spits did not seem to have been given the same coverage as headlands and bays or arches and stacks even though it has the same prominence in the specification. In 7(b)(iv), many had little idea about spit formation, at best recognising deposition or longshore drift as being responsible somehow. Better responses noted the change in direction of the coastline, the role of a dominant (and secondary) wind direction and the process of longshore drift.

In 7(c), a lack of clarity or the fact that the terms were not known prevented some students from scoring marks. Many could define one or the other and the best were aware that the spit extended from one side of the land whilst the bar was joined at both ends.

If the photograph was referred to and the vegetation described, as the command word demanded in 7(d), marks were gained. Often there was a drift into reasons and statements were vague and inaccurate. The presence of patchy grass, longer grass and green shrubs was enough to access all three marks. A coastal habitat is clearly an important component of this section, comprising one of the six sections. However in 7(e), many candidates did not appear to have understood what a coastal habitat is and wrote about headlands and bays, caves, arches and stacks. There was some merit in coastal management strategies – even in the absence of a habitat - as these would have an impact on the management of it. The best answers referred to a salt marsh or dune area – sometimes additionally naming an area such as Keyhaven Marshes - and identified the methods in place, such as designated footpaths, boardwalks, information boards and the designation of areas as SSSI's with recognition of what this meant.

Mark Ranges and Award of Grades

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