

Geography Specification B

Advanced GCE **A2 7833**

Advanced Subsidiary GCE **AS 3833**

Report on the Units

January 2007

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Chief Examiner's Report

The OCR Advanced Subsidiary GCE Geography B specification attempts to provide a coherent course in geography and a solid foundation for further study at A2. The philosophy of the specification is essentially about understanding how physical and human systems operate in order to consider how they might be managed in a sustainable way. As such, the use of contemporary examples is important in considering future geographical challenges.

The January 2007 examinations were sat by a significant number of candidates in all the available units. (Unit 2692 is not available in the January cycle.)

There was a considerable number of resit candidates in some of the units and it was evident that a proportion of these candidates improved their performance.

Principal Examiners have expressed the view that students were generally well prepared in terms of both subject content and examination technique. Standards appear to be consistent across the units with marginal improvements in some areas and slightly fewer very poor responses.

Very few candidates aggregated their marks in order to claim a final grade in this series.

The following sections give a more detailed breakdown of the individual units.

2687 Physical Systems and Their Management

General Comments

The examination was considered appropriate for AS level candidates and almost a full range of marks was achieved. There was still some imbalance in the choices in Section A with under half the candidates choosing to answer the question on Atmospheric Systems but over three quarters answering the Landform and Coastal Systems questions, the most popular question being the latter. Candidates should be encouraged to look at the whole balance of the Specification, including the headings to each module and study section. Care should be taken by A2 candidates who may be re-sitting their AS module that their more recent studies of topics such as Natural Hazards are not used in place of their AS case studies; they are rarely appropriate. Better candidates can demonstrate a synthesis and overview of the physical systems studied. This ability to see the whole picture of any of the physical systems, to understand how the processes interact, and then to appreciate the impact of management upon the system, together with the use of detailed located examples, are the qualities that characterise the good candidate.

Section A

The format of each question is the same as in previous examinations and, as in the complementary Human Systems module, there is a choice of two from three questions; one on each of the three study units. A resource provides stimulus material and data for parts (a) and (b) to show understanding and skills in different contexts, while part (c) requires greater use of knowledge. Parts (a) and (b) have 9 marks each, while part (c) has 12 marks.

Section B

In this longer essay section there is a choice of one from two questions that seek to combine elements of all three physical units, to show the ability to synthesise knowledge and understanding of all aspects of physical geography. There is space in the answer booklet to plan this more demanding task, worth 30 marks, and once again it was evident that the candidates who planned carefully were able to construct a more logical essay that fulfilled the requirements of the question.

There was some evidence of shortage of time, but few rubric errors. A few candidates failed to complete all of the sections of some questions. It is advised that the following comments are read in conjunction with the mark scheme.

Comments on Individual Questions

Section A

1 Atmospheric Systems and People

- a) **Study Fig. 1. Describe the pattern of temperatures shown.** [9]

The focus of this question was purely descriptive, requiring a clear appreciation of the pattern of isotherms shown on the map. A large number of candidates attempted to explain why the centre of London was hotter. Many answers merely listed the temperatures of the isotherm or produced very basic answers, such as:

“The centre of London is 5 degrees hotter than the surrounding countryside.”

This gives little of the pattern so was a level one answer. Better answers did recognise a simplistic pattern:

“The isotherms form concentric circles around the central London hot spot.”

The highest level responses, in addition, identified areas of anomalies with a clear appreciation of the extension to the north east and/or:

“Temperatures bend in towards the centre along the Thames. The isotherms bunch together here compared to the west of London.”

Some candidates still try to explain the pattern despite the direction to describe.

(b) Suggest reasons for the pattern of temperatures shown on Fig. 1. [9]

Most candidates understood and explained ‘urban heat islands’ but some left it at a basic level rather than linking the reason tightly to the pattern or even temperature level:

“Increased density of buildings in city centre leads to greater heat.”

Others identified good cause-effect to link to the ‘heat island’:

“The high density of buildings increases heat as the dark concrete absorbs heat during the day then they radiate it out at night so raising temperatures.”

There were some wide ranging reasons suggested, including: waste heat from air conditioners, central heating, heat from transport, buildings reducing wind etc. but some showed a limited understanding of the scale of various phenomena:

“The traffic produces lots of carbon emissions that lead to local global warming so making the congested city centre hotter.”

(c) Describe and explain the weather associated with either low pressure or high pressure atmospheric systems in the British Isles. [12]

This was a disappointing section for many candidates. Too many confused low and high pressure or referred to air masses. Many tried to explain the pressure system rather than the weather it brings:

“Low pressure forms as warm tropical air moving north meets colder denser polar air which undercuts it and forces the warm air to rise so creating low pressure.”

Some very effective answers were produced based around well drawn and annotated section through a depression. The sequence of weather was then well described and explained in terms of distance along the warm and cold fronts.

Those that chose high pressure either produced very high level answers that looked at the winter – summer contrast in terms of the weather resulting from clear skies or were weaker answers that focused on one season and assumed this was the normal weather:

“High pressure brings anti-cyclonic gloom so temperatures are low in the day but mild at night as heat remains trapped by the low cloud.”

The crucial explanation required some idea of the tendency of air to rise (low pressure) or sink (high pressure) or stability.

2 Landform Systems and People

(a) Study Fig. 2. Describe how human activity can increase the risk of flooding.

[9]

A range of ways that human activity can increase the risk of flooding was offered by most candidates. It was disappointing to see that not all candidates made full use of the ideas outlined in Fig. 2. Describe 'how' requires some development of the point:

"The building of impervious surfaces such as roads reduces infiltration and increases runoff. This results in flashy hydrographs."

Some offered limited description and left the linkage to flooding implied or unstated:

"Cutting down of trees and the ploughing up of grassland for crops results in increased flooding."

Or

"By building on floodplains there are more people so flooding risk increases."

Some candidates based their answers around specific case studies of rivers or floods eg the Mississippi at New Orleans. This was not required but often did make the cause-effect link clear.

It was possible to score at a high level by covering a few aspects in detail or more aspects with less detail. The crucial point was the clear linkage to how human activity can increase the flood risk.

(b) Explain the ways in which rivers can be managed in order to reduce the risk of flooding.

[9]

This was well done with a wide variety of ways with most candidates recognising 'hard engineering' approaches, eg dams, and 'soft engineering', such as afforestation of the catchment area. There was no requirement to exemplify but most candidates did link their ways usually to the *Mississippi* (sic).

Most kept close to the river itself with levees, diversion canals, straightening meanders and dams. The higher level responses looked at the wider context of the basin or floodplain:

"One management type is to ban building on the floodplain so not creating impervious surfaces that all too often lead to flooding."

(c) Using examples from a named river basin and with the aid of diagrams, describe and explain the formation of two landforms associated with fluvial processes.

[12]

This was a very good discriminator, especially the quality and accuracy of the diagrams. Most candidates chose two of: waterfalls, ox-bow lakes and meanders. The latter was often drawn well but it left the candidate with an uphill struggle to explain its formation. Some candidates chose inaccurate river basins eg The Humber, or had landforms that patently did not exist on that river:

"The river Dee has a birds foot delta formed by the deposition of silt at its mouth."

The better candidates did much of their explaining in the form of well annotated diagrams, especially waterfalls. Meanders were often well labelled with slow and fast areas of current but then candidates could not explain their formation:

“Meanders form as the river bends. This means the current varies which make the bends grow.”

Many answers resembled GCSE responses. The discriminator was those that appreciated the mechanism of formation:

“Ox-bow lakes form as the overcomplex river bends are cut through as the river tries to straighten its course to gain speed. As it does this most water follows this shorter straighter course so the old bend is avoided and silt builds up cutting it off from the main river.”

3 Coastal Systems and People

(a) Study Fig. 3. Identify and briefly describe the coastal landforms shown on Fig. 3. [9]

This was done well with most candidates achieving the top of level two by identifying a wide and exhaustive range of coastal landforms. A few drew annotated sketches to better locate their landforms. Description was far more limited with many drifting off into explanation of how the feature was formed. Too many clearly had not read part (b) before they embarked on their answer. Typically they resembled:

“The stacks formed as the arches were eroded by hydraulic and corrosion action so could no longer support the roof of the arch. It collapsed leaving the stack isolated.”

Descriptions could have been holistic with some reference to the chalk coastline but others described the location of the landform:

“The small beach has collected within the bay trapped between the two chalk headlands.”

Few offered descriptions in terms of shape and size.

(b) Explain the processes of erosion involved in the formation of coastal landforms. [9]

This was disappointing. This is a common question and yet candidates still repeat a lot of description (often supported by diagrams) of stack or stump formation rather than directly focus on erosion processes.

The focus was clearly on erosion which did allow non-marine processes such as wind erosion but **not** weathering. Far too many candidates did include weathering:

“Sub-arial (sic) erosion such as mass movement, freeze thaw and solution works on the coastline.”

The better candidates explained marine erosion processes such as hydraulic action, abrasion (often confused with attrition) and corrosion. The highest level responses related these to the formation of some of the landforms identified in (a).

- (c) **Using a named coastal area, describe and explain the methods being used to manage coastal erosion.** [12]

This was a well answered question. Evidence of well known case study material was common. Many used Holderness and Southern Hampshire coastal stretches as examples but others chose an individual seaside resort's methods such as Scarborough or Lyme Regis. The question asked for 'a' named coastal area so some candidates wasted time and space by looking at two separate areas with the same range of methods.

There was a good range of methods with an appreciation of the differences between hard and soft engineering methods and planned retreat. Some wandered off the focus of the question and attempted to evaluate the success of the particular method.

"Seawalls are expensive and eyesores. They cost a lot – thousands per metre and they may have to be continually raised as sea levels rise."

On the whole, descriptions were better than explanations. Many offered simplistic explanations or assumed it was obvious why it managed erosion:

"The council has spent £2 million dumping sand on the beach (beach replenishment) which further protects the coast from erosion."

This was a missed opportunity to explain why a larger beach reduces erosion, by waves, of the area behind it.

Section B

- 4 **Consider the view that managing one part of a physical system can create problems elsewhere. Use examples to illustrate your answer.** [30]

Question 4 was considerably more popular than question 5, and gained a higher average mark. It was particularly evident in this question that candidates were learning their case studies well. Most based their answers around coastal systems using both Holderness coast and the Barton on Sea area to illustrate how managing one area or aspect can have a 'knock on effect' on other areas. Some broadened their answers to include wide ranging problems:

"In the Gambia the heavy expenditure on protecting low lying sandy tourist beaches has meant that there is less money available for economic development so the country suffers."

This was a valid response but it had been hoped that there would have been more of a focus on 'systems' with some appreciation that there are implications for stores, flows, inputs and outputs.

More effective answers looked at river systems as well, often quoting the impact of dam construction such as the Aswan High Dam or Three Gorges dams on areas above and below the dam. Few looked at atmospheric systems although some did try to introduce global warming.

5 Why does the management of water supply require a good understanding of both atmospheric and hydrological conditions? [30]

This was not a popular question and those that did attempt it found it difficult to provide balance between the two aspects or did not relate them sufficiently to management of water supply. Many answers were simplistic:

“Knowing that it will rain in the west and less in the east means water should be transferred from west to east in Britain.”

This was essentially correct but needed more development to bring out the detail of the atmospheric conditions and why they needed to be understood. Few went into detail on the atmospheric system aspect and often the hydrological conditions were limited in scope usually focusing on the nature of rivers:

“Rivers carry water so their flow levels need to be understood if water is to be extracted for supply.”

Better answers looked at the flows in the hydrological cycle, which also helped link it to atmospheric. More effective answers identified the level of water tables, porosity of rocks, lakes and evaporation losses as critical for managing water supplies.

Many answers lacked detailed exemplification:

“Wales has lots of rain and has numerous lakes for storage. Naturally this makes it the source of water supply to the Midlands.”

Again a sound response but with some detail eg rainfall total, named lakes/reservoirs, cities in the Midlands that use such supplies etc. it would have been a much higher level response.

Candidates should be given practice in this extended writing, as the longer essay gives the examiner the opportunity to assess the quality of written communication to a greater degree than the shorter answers. Crucial in this is the ability to read the question carefully and respond in a focused way to the key concepts or terms used. Fluent use of geographical terminology, the logical structure of the essay, and the ability to draw together elements from all three of the study units of the Specification fulfil the requirement to synthesise knowledge throughout the AS course, and provide a good foundation for the higher level skills required in the synoptic paper at A2. It also provides confirmation of progression beyond GCSE in both knowledge and understanding of the subject.

Evident in this session was a lack of revision by some candidates as if they were relying on work done some time ago. Those who had revised well and thought carefully about the question wrote answers which were a pleasure to read and reflect the good teaching that is evident in many Centres.

2688/01 Human Systems and their Management

General Comments

The number of candidates was, as usual, much smaller for the January session than the one from the preceding summer. It was slightly smaller than the entry for January 2006. The entry differed from that of the previous summer in that there were few high ability candidates entered.

One encouraging feature was that the use of examples continued to be better than a few years ago. Even so, there were still some candidates, when asked for LEDC examples, who wrote 'in Africa', with no effort to identify any one individual country. Knowledge of EU countries was tested. Other than the UK, Italy was almost always chosen, with reasonably good knowledge, but no other country was used with more than very superficial knowledge. Choice of questions in Section A was very much determined by the topics studied by Centres. In particular, question 1 tended to be selected by all, or none of the candidates from individual Centres. There were only a few very brief or very poor Section B answers from candidates in this session. Candidates did show more ability to link separate parts of the Specification, even though those who did this well were more limited in number.

Although over three pages were provided for answers to Section B, many candidates used less than one side for their answer. It is unlikely that a question with an allocation of thirty marks could be adequately considered in such brief answers. These shorter answers seemed to arise because of difficulty in answering the question rather than from a lack of time.

Although the layout of the paper was set up for scanning, it was not scanned and marked on screen for this session. This is fortunate, for despite the instruction to 'not write outside the box bordering each page', a good number wrote outside of this area. In particular, even though pages 15 and 16 were provided for answers to be continued, one Centre continued answers on supplementary sheets of A4 that were not attached to the answer booklet in any way, and pages 15 and 16 were left blank. Two other Centres punched holes in the answer booklet and attached supplementary pages, ignoring pages 15 and 16.

There were fewer sets of answers in handwriting that caused problems for examiners in this session. Candidates should nevertheless be reminded of the need to produce legible answers. If legibility is affected by a disability, it may be appropriate to apply for a Special Arrangement (eg use of a word processor).

There were a good number of candidates with rubric errors, usually answering all questions from Section A. In one relatively small Centre over half the candidates took this approach. If candidates had been advised to do this in the knowledge that all would be marked and the best two marks carried through to the total, it was poor advice, as it is unlikely that candidates have the time to answer all three to a reasonable standard.

Comments on Individual Questions

- 1 (a) Use Fig. 1 to help describe the main features of the 'just-in-time' principle of manufacturing and how they differ from more traditional methods of mass production. [9]

This question was answered either very well or very poorly. It was clear that some Centres had studied the topic in detail and candidates went way beyond the information provided to describe just-in-time methods. In such instances, virtually all the candidates from the Centre selected this question. For other Centres, almost all candidates avoided the question, and the isolated candidate that did attempt the question had little idea of the subject, and did hardly anything more than copy out phrases from the resource. Of those candidates who knew the topic, the main weakness that occurred was to ignore or gloss over the differences from traditional methods. Another feature that kept some answers in Level 2 in otherwise good responses, was a tendency to neglect some parts of the process, by dwelling on one aspect, for example, in describing the rapid reaction to customer preferences or responding to innovations by competitors. Such answers sometimes failed to note any points about suppliers and parts.

- (b) Suggest in what ways 'just-in-time' manufacturing might lead to economic change. [9]

Candidates who answered part (a) well were usually able to answer this part too. A wide range of economic changes were credited provided they were linked to just-in-time methods. Weak answers were often just further repetition of material from Fig. 1 without including economic change at all. Most answers considered economic change in a positive way. These were often concerned with encouraging the establishment of nearby components factories, or increased earnings from multi-skilled employees stimulating spending in the nearby area. Although not a requirement of the question, good candidates illustrated their points with examples. Such answers almost always were able to meet Level 3 requirements.

- (c) With reference to one or more countries that you have studied, explain how inward investment may change the economic activity at regional and national scales. [12]

Candidates with a good knowledge of one or more case studies almost always achieved Level 3 or high Level 2. Of such candidates, those not reaching Level 3 did not really address the issue of scales. This was often a consequence of illustrating regional scale impacts and then never mentioning the national scale, or by ignoring scale altogether. Some candidates were not aware of what inward investment entailed, and described regional aid policies of national governments only. If these were later linked to attracting inward investment, they could of course reach Level 3. A small number of candidates did not seem to know what investment meant, and wrote answers that were difficult to credit in any way.

2 (a) What are the possible concerns of the public shown by the survey in Fig. 2? [9]

This was a popular question. Many candidates showed an ability to go well beyond the information given in Fig. 2. Many did this by showing that an underlying concern linked several of the planning issues, usually transport in general and its links with congestion, pollution and public transport. Others similarly linked development of urban fringes with access to the countryside, shopping facilities and affordable housing. Others showed how other concerns were linked to individual planning issues, for example, concerns over health resulting from pollution. Low level answers usually consisted of little more than reading off the names of planning issues, and sometimes their associated percentages without any attempt at identifying what concerned people.

(b) Explain how two of the planning issues in Fig. 2 may cause changes in settlements. [9]

Candidates with a good understanding of settlement dynamics easily linked two issues with change. For example, several candidates mentioned that traffic congestion could often lead to the building of new roads, particularly by-passes, or the introduction of congestion charging. Although not a requirement of the question, some candidates gave examples to illustrate their points. This often helped achieve Level 3 performances. The greatest weakness that occurred was to select only one planning issue. No matter how well just one was covered, it was not possible to award Level 3. Other weaker answers dwelt on for example, road building, without emphasising the change to the settlement.

(c) For one or more examples of planning schemes that you have studied, suggest how successful they have been. [12]

In order to answer this fully, candidates needed to identify what problem existed, what was done about it, and whether it worked. A few candidates did this well, but too often one or more of these elements was missing. In extreme cases, a scheme was referred to along with a statement that it had been a success without any supporting evidence. High quality answers came from a wide variety of sources. One outstanding answer showed how similar attempts at improving favelas had met with differing degrees of success in different districts of Rio de Janeiro. Other good answers used both inner and outer Manchester, and London Docklands to cover all three elements.

3 (a) Use Fig. 3 to describe the relationship between development and the status and role of women. [9]

Few candidates failed to spot that there was a general relationship between development and the status and role of women. The degree to which Fig. 3 was used to describe this varied enormously. Some candidates stated there was a relationship and more or less left it at that. Many candidates who did try to support their statements used no evidence to support their choice of level of development of countries to illustrate points. The best candidates supported the relationship with evidence of both development and gender (in)equality, but also went on to show that it was not straightforward and that exceptions and anomalies exist. A few candidates, who wrote otherwise very good answers, totally ignored the fourth column showing the working time of women as a percentage of that of men.

(b) Explain how changes in the status and role of women may influence fertility rates. [9]

There were some very good answers here where candidates explained how change, usually a rise in status and greater role in career development, led to a lowering of fertility rates. There were also many potentially good answers that remained in lower levels. A common error was to state the relationship, in detail, but not explain it. The command word of the question, 'explain', was ignored. 'Educated women have less children.' was stated, but how an increasingly high level of education could cause a lowering of fertility rates was just not explained. Another weakness, that in some cases ended up being not too serious, was to neglect change and just contrast two extreme examples, for example Bangladesh and the UK. The process of change was left to the reader, but sometimes the implication was very clear.

(c) For one EU country and one LEDC, explain why population trends may differ. [12]

Only a few very good answers were produced here. The principal weakness that occurred was to ignore trends, and contrast some features of two differing populations, even then, sometimes not comparing like for like. For example, the population pyramids of two countries were contrasted. Good answers were often quite simple, for example, explaining why the UK population was growing slowly whilst that of Bangladesh was growing more rapidly. Ageing of populations was well used, as was dependency. The most common EU example was the UK, with a fair number using Italy, but hardly any other EU country was known. Amongst weaker candidates it was particularly in this question that 'Africa' was the LEDC chosen. In a small number of cases no actual countries were chosen but the question answered in a generic way for each type of area.

4 'Rapid population growth is the cause of all urban change.' To what extent is this true? [30]

The numbers of candidates selecting each of the Section B questions were not dissimilar, but this question was marginally more popular than Q.5. There were only a few very low scoring answers here. Most candidates were able to answer the question to some degree. There were two main ways in which candidates did not achieve very high marks, these were giving little support to answers from examples, and/or not dealing well with extent. Those who showed how rapid population growth could lead to change, and also change resulting from other causes, with accurate place support for each, easily reached Level 5 or high Level 4. Of those reaching only a lower score, most stated that population growth did cause change, but did not illustrate this, or gave one or more other causes of urban change, with these

instances given only a little support. There were a number of well-reasoned answers both ways, but no support given at all; only good generic statements. The number of candidates who found it hard to answer gave very brief answers, often of little relevance.

5 'Globalisation means that it is more difficult to classify countries as either LEDCs or MEDCs.' How far do you agree with this statement? [30]

As with question 4, there were only a very small number of very poor responses. Globalisation was understood by almost all selecting the question as was the difference between LEDCs and MEDCs. It was interesting to note that globalisation was often perceived as exploitative, and not particularly helpful in the development of LEDCs. This was a perfectly acceptable approach if supported by evidence and related to difficulties of classification. Classification as LEDCs or MEDCs was rather more poorly dealt with. Countries were quoted as examples of each as if it were self-evident which category they belonged to, without the need for any supporting evidence. This was the most common weakness holding back answers from being Level 5 or high Level 4. The best answers showed how globalisation had helped a number of countries become NICs, and that some had developed further and could be classed as MEDCs, usually on the basis of being the home country of a TNC. These answers gave supporting evidence such as GNP/capita, literacy or persons per doctor as measures of development. Quite a few candidates argued that NICs were all really a form of LEDC, usually without giving evidence for this, but giving South Korea, Taiwan, Singapore and even Japan as examples. There were fewer very weak answers to this question than for question 4.

2689 Geographical Investigations 1

General Comments

The overall standard of the paper was similar to January and June 2006. Candidates were generally able to address all the assessment objectives of the Report. Where choice existed (Questions 1 to 3), Question 1 was the most popular choice and overall it was answered well. About the same number of candidates answered Questions 2 and 3, for which most of the responses were well thought out. Question 4 presented the challenge of a varying format and content of question between sessions. Many candidates responded well to part (b), which required an extension to a questionnaire, whilst part (a) required generic knowledge of sampling methodology across an urban area.

The Report

Guidance given to candidates: The common practice for AS Level is for all Reports to be guided by the Centre or a field centre with group collection of data; the outcomes, to some extent, reflect the expertise of the Centre or field centre. The assessment criteria achieve differentiation by outcome, although there is necessarily commonality in the Reports and subsequent marks at each Centre. There was sufficient differentiation between candidates at most Centres to suggest that an appropriate level of support had been offered. Nearly all Centres stated how candidates had been assisted, usually by selecting the general topic, study location and sampling points. Candidates were responsible for developing the methodology for planning, undertaking data collection and analysing the outcomes.

Length of Report: It was pleasing to see that there were fewer rubric infringements, concerning the 1500 word limit. Candidates who substantially exceeded the word limit could not enter Level 3.

Supporting figures: A maximum of two pages of relevant figures in support of the text is required. Once again, it is pleasing to report that more Centres are adhering to the guidelines, without any detrimental impact on the mark awarded. Credit is awarded for presenting the most appropriate data in the most appropriate formats that enable like-for-like variables to be compared readily on the same page. Figures should not be photocopied and reduced in size in order to continue to submit excessive quantities of data. The inclusion of raw data such as field notes and completed questionnaires is not required. However, templates for data collection, eg a blank questionnaire, are useful.

Content: A maximum of three hypotheses gives the most successful outcomes, as this enables deeper analysis and evaluation than is possible with more than three hypotheses. Data collection and analysis should relate to the aims and hypotheses that the candidate has proposed at the beginning of the Report. Average and good candidates now produce little irrelevant material. As in previous years, the majority of Reports covered physical topics, typically rivers, coasts or psammomeres. Human geography Reports were mostly based on the CBD or urban environment.

Benefit from experience: If re-sitting, it is a good opportunity for candidates to improve the Report submitted or even to submit a new one based on a different topic or improved data collection.

Preparing for the Report: A good set of field notes can provide valuable explanations for the outcomes of the data analysis – particularly any anomalies that are present.

The Written Paper

The answer booklet clearly states that material from the Report is to be extended and not repeated in Questions 1/2/3. Such repetition is less evident with successive examination sessions, but remains a characteristic of lower ability candidates. For January 2007, repetition from the Report was a risk for Questions 1 and 3.

Question 1 was by far the most popular question. On the whole it was answered well with most candidates reaching Level 3 or above. The better quality answers clearly address the problems of data collection caused by physical and human factors rather than their impact on the outcomes/results of the investigation.

Question 2 was a much less popular choice of question. There was a larger range in the quality of answers than for Question 1. The best responses looked at a limited number of techniques in depth and tended to use the suggested list for the response. Weaker candidates did not consider the interpretation of data aspect of the question and made suggestions that were not field work techniques.

Question 3 was the least favourite choice of question (but not a lot less than for Question 2). Again there was a larger range in the quality of answers than for Question 1. Good responses clearly discussed the benefits of the additional variables in terms of a better understanding of the data already collected. Weaker candidates did not understand the terms “suggest” and “variable.”

Differentiation in the candidates' answers to **Question 4** was achieved through their understanding of the general principles of how to collect data effectively and meaningfully. Nearly all candidates referred directly to the data in their response. No candidate completely misunderstood both parts of Question 4.

Question 4(a) was generally the least well answered question on the paper, although candidates usually made good use of the map. Good candidates adopted a simple but effective approach based on stratification. Weaker candidates did not consider sample size, provide sample questionnaires or justify their methodology.

Question 4(b) was generally well answered with candidates making good use of the map and suggesting appropriate extension questions that included employment, access and environment issues. Weaker candidates posed at least two similar questions. A substantial number of Candidates did not understand the function of a Science Park.

All candidates attempted all parts of the paper and followed the rubric. Very few appeared to mismanage the time available. There was still inconsistent quality between questions, even by intermediate and high ability candidates.

Detailed Comments

The Report

The following comments regarding the Report have been made for previous examinations. Many candidates have the potential to benefit substantially by addressing these issues outlined below, most of which are simple to act upon.

1 Coursework Cover Sheet CCS205

- (a) Cover Sheet CCS205 must be used (it replaced GCW024 in September 2004).
- (b) A Cover Sheet was used by most Centres. It is used to identify the context of the studies, the conduct of group work and special circumstances relating to the conduct of the study.
- (c) Centres should ensure that the following information is provided:
 - The number of words in the Report. Titles and headings are excluded from the word count. Text presented as sentences or detailed notes in tables are included in the word count.
 - The Reports are signed and dated individually, ie not photocopied, by a member of staff at the Centre.

2 Authentication Sheet CCS160

The use of CCS160, introduced in November 2003, is compulsory: not all Centres use it, with the consequence that publication of results may be delayed for their candidates.

3 Overall performance

- (a) The vast majority of candidates entered Level 2; very few candidates remained in Level 1. Stronger candidates constructed fluent and well argued Reports that linked their outcomes with their initial expectations when accepting or rejecting their hypotheses and also considered geographical theory. Weak candidates included little analysis and the structure was poor, with weak hypotheses that were ignored in the remainder of the Report.
- (b) Most Reports represented a substantial development from GCSE, showing independent thinking when analysing and evaluating outcomes.

4 Presentation

- (a) The **standard** of presentation in the Reports was generally good and show improvement. Good characteristics are:
 - Easy to read text.
 - Use of the third person rather than the first person.
 - The sheets are in the **order** in which they should be read. **Page numbering** is used.
 - Figures and tables are **cross-referenced** at the appropriate place in the text.
- (b) The use of **excessive text** describing data collection and the evaluation of the method in a tabular format can attract a penalty against entering Level 3 if the word count is not adhered to. However, the careful use of tables in this way is highly effective.
- (c) The recommendation for two pages of **supporting material** was not adhered to by many candidates. These figures should:
 - (i) Provide evidence of the data collected.
 - (ii) Relate to the stated aims and hypotheses of the investigation.
 - (iii) Show an awareness of appropriate methods of representing data, eg:
 - One map extract of an appropriate scale (not the whole UK) should show the location of the investigation and/or sampling sites.

- ☑ Insert figures/tables at the appropriate place within the text so that it complements rather than detracts from the text.
 - ☑ Do not photocopy and excessively reduce the size of figures in order to add more information in the recommended space: this leads to loss of quality in information.
 - ☑ Do not spread graphs over a number of pages, making it difficult to compare like for like variables, eg if 10 river cross sections are made, they should be presented on the same page using the same scale.
 - ☑ Do not use more than one technique to present the same data.
- (d) **Word processing skills** continue to improve, but **proof reading** must not be neglected. In a few cases, the standard of English was weak.

5 Length

- (a) At a few Centres some Reports exceeded 1500 words. The word count must be adhered to and an accurate word count stated. Fairness for all candidates is paramount. Candidate should think carefully about how to use the word resource effectively.
- (b) As noted in 4(b), the use of tables to describe and evaluate data collection may be used to “save words” – but such tables with continuous text are part of the word count.

6 Format

Most candidates used a recognisable format based upon the Specification: introduction, aims and/or hypothesis, data collection, analysis, and evaluation. The essay style approach without headings is seldom used – it often makes the structure of the Report more difficult to understand.

7 Content

- (a) The **subject matter** of Reports was nearly always appropriate. At AS level, candidates have not covered a great variety of topics. Physical studies such as rivers, psammomeres, spheres of influence and definition of the CBD are very popular and suitable topics.
- (b) Many Reports continued to have a weak **introduction**. It should be short and balanced, summarising the context of the study by stating: (i) where the study is based; (ii) something about the study area; and (iii) why it was selected.
- (c) The **aims** were given in nearly all Reports, but in some cases the **hypothesis** was not given or it was not clearly linked to the aims. A simple hypothesis demonstrates an understanding of what is expected to happen, according to theoretical knowledge, eg the velocity of a river will increase downstream; larger shopping centres have a greater sphere of influence. Additional justification can be given here. Expectations presented here can be used to explain the results later in the Report. The purpose of the null and alternative hypothesis, when stated, is sometimes misunderstood. *The null hypothesis should state that there is not a relationship expected between two variables, whilst the alternative hypothesis should state that a relationship is expected, and preferably indicate the direction/nature of this expected relationship.*

All relationships to be analysed should be stated clearly in this section.

One or two hypotheses are adequate. Highly diverse and/or numerous hypotheses do not lend themselves to an easily managed Report, often leading to lengthy methodology and limited data analysis / evaluation sections.

The hypothesis must precede the methodology, otherwise it is not possible for the reader to know whether appropriate variables are being collected.

- (d) The **method** was usually presented well (as in previous years). Appropriate methods of enquiry were used. The following are good characteristics:
- How the sites/transects for measurement were **selected**.
 - Type of sampling** used (random, systematic, stratified – *Candidates often confuse these definitions*).
 - Sample size** for each sampling site [*frequently omitted*].
 - The data collected is **relevant** to the aims/hypotheses, *otherwise the analysis is not relevant to the aims. When groups collect many variables, individual candidates should only refer to variables relevant to their chosen hypotheses both in data collection and analysis.*
 - A precise **definition** is given for the variables.
 - Template of **questionnaires** and **survey forms**, eg environmental impact.
 - Field notes** made whilst collecting data, to be referred to in explanations of results.
- (e) **Analysis** continues to be of variable quality. Good characteristics include:
- A clear indication of the hypothesis being discussed.
 - Text describing the results of the investigations is linked to graphs, tables, figures or photographs.
 - Theoretical knowledge used to explain the outcomes.
 - Anomalies** looked for and an attempt made to explain them by referring to **secondary knowledge** and **field notes**. The source of the explanatory material is stated.
 - The outcomes from more than one hypothesis/aim are linked – *this is a Level 3 type response*.
 - All the data** that has been collected is referred to and is relevant to the hypotheses.
 - The source of **supplementary data** (ie secondary and anecdotal evidence) is used to support the interpretation of data. *This is often omitted with coastal management schemes and responses to questionnaires.*
 - Statistical tests:**
 - Provide numerical evidence to demonstrate that a test has been carried out.
 - The term “significant” is used carefully. The **level of statistical significance** of a relationship (if any) is stated when carrying out a suitable test such as Spearman’s Rank Correlation.
 - Check calculations carefully. *A logic check by the candidate will quickly reveal unrealistic results, eg the direction and strength of an appropriate relationship based upon Spearman’s Rank Correlation should be checked against scatter graphs. Units should be checked, eg discharge is often miscalculated.*
 - Use appropriate formulae to calculate results, eg the calculation of velocity based on the number of propeller counts or the time taken for a float to travel over a given distance must be converted to metres per second.
 - Make sure *both* variables are ranked from high to low (or low to high) for Spearman’s Rank Correlation.
 - The Conclusion does **not repeat information** verbatim from the analysis.
 - Candidates should be aware of geographical theory, eg velocity increases with distance from the source of a river; rain on the day preceding data collection does not make the results inaccurate or incorrect.

- (f) Nearly all candidates **evaluated** the project by considering two main aspects: (i) difficulties in selecting the sample and field data collection, and (ii) possible modifications and extensions to the study. Weaker candidates continue to state that the study went well and that the outcomes were as predicted. Most studies can be linked to a geographical theory, but this third area of evaluation was usually not mentioned or the theory stated early in the Report was not returned to in the outcomes – particularly in the case of land use models.
 - (g) The presentation of **maps** was reasonable, eg title, scale and key. Few candidates used the map to show precise locations of sampling sites on, for example, rivers or sand dunes. Furthermore, many did not include any map – yet they are a fundamental part of Geography.
 - (h) **Graphs**: Candidates usually selected appropriate ways of presenting data, but most made one or more of the following errors:
 - Used more than one technique to present the same data.
 - Poor choice of scale for variables with small variations.
 - Variable scales for the same pairs of variables on different graphs, so that comparisons were difficult and/or misleading.
 - Axes not labelled or inaccurately labelled.
 - Two types of graph used to represent the same variables at two different sites, thereby making comparison difficult.
 - Independent variable placed on y-axis.
 - Poorly ordered graphs make it difficult to compare like with like.
 - Line graphs should not purport to show a link between qualitative descriptors such as types of land use or a set of 10 randomly selected pebbles on a river bed.
 - Titles stating “A graph to show.....“ The graph obviously shows something!
 - Graphs and diagrams not relevant to the variables used.
- ⇒ Use Question 4 from January 2006 as an exercise in selecting and presenting graphs.

The Written Paper: Comments on Individual Questions

Choice of Question 1 or 2 or 3

Very few candidates remained in Levels 1 and 2 and a good number entered Levels 4 and 5. Questions 1/2/3 must be read carefully by the candidate to ensure that they understand what the question requires – rather than attempt to use an answer that has been rehearsed as part of examination preparation.

Question 1 was the most popular choice, with far fewer attempting Questions 2 and 3. Most candidates generally understood the requirements of the questions. The level of attainment for all questions 1 and 2 was good, with most responses entering Level 3 and a good number entering Levels 4 and 5, particularly for Question 1. The level of attainment was lowest for Question 3.

Acceptable responses were the same as previous examinations: credit is gained either by considering a few issues in detail or by looking at a range of ideas in less depth. These questions consistently differentiate between candidates that understand how to carry out and analyse AS level research, as opposed to those who have mechanically followed instructions.

The answer booklet clearly states that material from the Report is to be extended and not repeated. For January 2007 repetition from the Report was a risk in Questions 1 and 3 if they were misinterpreted.

1 Many candidates reached Level 4; a good number entered Level 5; very few stayed in Levels 1 and 2.

Indicative content: The effect of human and physical factors can be broadly divided into two categories: factors that were or were not beyond the immediate control of the Candidate. Factors beyond the control of the candidate include: dependence on unreliable/incomplete data by other members of the group; change in access to land agreement; change in weather conditions, eg affecting river levels, ability to use equipment, access to study site blocked off, affects how the environment is assessed, abnormal number of people at a location; equipment had been checked but broke down/did not work. Factors not beyond the control of the candidate include: did not check whether equipment was available and working, access arrangements, local site conditions, weather forecast; the group did not agree procedures for measurement; the group did not agree sampling method so not sure where to collect data from. Rectification of an identified problem is creditworthy.

Qualities of A grade candidates: Either two or more factors affecting data collection are discussed well / quite well or more factors are discussed in less depth. Human and physical factors are discussed. The impact on the data collection process is clearly addressed. The answer is generally logically ordered and well presented.

Other Comments: The majority of candidates were able to identify at least three reasons human and/or physical factors that affect the collection of data – although the understanding of physical as opposed to human factors was at times questionable. The better quality answers clearly addressed the problems of data collection caused by physical and human factors rather than their impact on the outcomes/results of the investigation. For example, fences erected by people across sand dunes affected data collection if it led to the candidate altering the planned transect (although the fence may have changed the outcomes, such as the height of vegetation, this was not answering the question). Other good answers explained how human and physical factors prevented the data collected from being representative of the site. Weaker candidates deviated into a discussion of how to measure the data collected; others discussed how factors could have affected data collection instead of how it actually affected it.

Typical responses referred to the factors that were beyond the control of the candidate, such as difficulties accessing the data collection site, poor and incomplete data collected by other people and equipment that did not work properly or was unsuitable due to the prevailing conditions. Alternatively responses considered factors that were not beyond the control of the candidate, such as not agreeing sampling procedures with other members of the group, not checking the accessibility of the data collection site and not checking the weather forecast.

2 Some candidates reached Level 4; a few entered Level 5; very few stayed in Levels 1 and 2.

Indicative content: Some field techniques (photographs, field sketches, observational notes and interviews) help to explain anomalies in outcomes; help to explain why relationships exist; show the impact of variables that were not measured; act as an aide-mémoire regarding the conditions at the study sites. Field techniques also include an explanation of the methodology, eg how to measure a variable. The answer must refer to the interpretation of data. Equipment per se is not a field technique.

Qualities of A grade candidates: Either two or more field techniques are explained well / quite well in terms of how they helped – or might have helped, if they were not used – in the interpretation of the data collected or more field techniques are explained in less depth. The answer is generally logically ordered and well presented.

Other Comments: There was a considerable range of responses: some concentrated on the suggested list of techniques whilst other also looked at other possibilities – some of which were not appropriate. There was a tendency to adopt a shopping list approach to the answer which involved covering several techniques in addition to the exemplar list rather than considering a few techniques in depth. The method of collecting data in the field was acceptable as a field technique. Some candidates concentrated just on the attributes of techniques that were helpful whilst others took a more balanced approach by considering the extent to which the techniques were helpful. Weaker candidates did not consider the interpretation of data aspect of the question.

Typical answers referred to the use of photographs, field sketches and observational notes as aide-mémoires for the study sites, providing a means of assisting with the interpretation of data and to suggest why anomalies existed. There was less clarity in answers which included a discussion of questionnaires and interviews.

3 Many candidates entered Level 3 and a few entered Level 4.

Indicative content: The following are examples that are relevant for commonly used topics for AS studies. Dune profile: soil or climatic factors could help to explain the types of plants growing across the transect. River study: geological and human influence could help explain changing channel characteristics. Environmental impact assessment: presence of non-residential buildings that had not been assessed. Sphere of influence: more types of service to determine a pattern in differing spheres of influence. Questionnaire: any additional relevant questions to help explain the hypothesis. There is no credit for describing the data collection of the variable or for an extension (eg on another occasion or at another location) of a variable already collected.

Qualities of A grade candidates: Two appropriate additional variables are discussed well / quite well in relation to how they would have improved the Investigation (rather than a description of how the data was collected outside the context of improvement). The answer is generally logically ordered and well presented.

Other Comments: Question 3 was the least favourite choice of question (but not a lot less than for Question 2). Most candidates entered at least level 3. The term “suggest” is not understood by some candidates, who interpreted it as meaning “describe how the data was collected.” Candidates also did not know the meaning of “variable” leading to erroneous suggestions such as carrying out a questionnaire (a tool to gather data about a variable) rather than identifying additional questions in a questionnaire that would contribute to addressing the objectives of the investigation. Weak responses also included suggestions for repetition of a variable already collected at another time or location. The collection of information about additional services that would help to establish a sphere of influence was acceptable. A number of candidates ignored the requirement to consider only two variables. Good responses clearly discussed the benefits of the additional variables, eg sediment size in a river in addition to hydraulic radius and discharge, in terms of a better understanding of the data already collected.

4 (a) **Few candidates reached Level 3; most entered Level 2; quite a few stayed in Level 1.**

Indicative content: Stratified sampling based on wards, areas or populations. It should preferably be a household rather than an on-street survey. Postal/telephone/door-to-door can be justified. Systematic or random sampling along streets or using a telephone or a postal directory. Sample size should be considered by suggesting numbers or be implied by stating for how long the data is to be collected.

[No credit for justification or for rejection of an alternative method.]

Qualities of A grade candidates: With good reference to the data given in the map resource an appropriate method of sampling the population is described well. The methodology – including sample size – is mostly appropriate and feasible for an AS investigation. Stratified and systematic sampling are likely to be understood. The answer focuses on description not justification. The answer is generally logically ordered and well presented.

Other Comments: This was generally the least well answered question on the paper; however, candidates usually made good use – although at times misguided – of the data supplied on the map. Good candidates adopted a simple but effective approach such as stratifying the data according to the population of the wards followed by a discussion of how that sample would be drawn in practice, eg a realistic number of door-to-door systematic surveys using a group of students to collect the data. Suggestions that tried to stratify according to ward population, unemployment levels and car ownership tended to be confused. Weaker candidates did not consider sample size. Other good answers included a pilot survey, postal sampling and random sampling based on a random number generator. Some answers deviated from the question by providing sample questionnaires (this was less prevalent than in a similar question in June 2006). Other weak solutions included random on-street sampling without ascertaining whether the resident lived in that area or even sampling from a city centre location. Many candidates deviated from the question by justifying (including rejection of alternative methodologies) rather than describing the sampling methodology.

Sample size was often inappropriate for an AS level investigation, eg anything over 300 is likely to be unrealistic.

(b) **Many candidates reached Level 3; many reached the middle-top of Level 2; very few stayed in Level 1.**

Indicative content: General aspects such as name, address, age, gender are not credited as they are already given in the question. Credit is given to responses that justify the reason for the question being asked and the design of the question. For example, the location includes the ability to travel to the Science Park, eg car ownership in the household, access to public transport; the impact on the local environment (loss of amenities (paths, fresh air), damage to wildlife; congestion; job prospects. Employment includes: currently unemployed/employed how long unemployed, wanting to change jobs (eg to increase income, improve job satisfaction, to travel a shorter distance to work), suitability of jobs at the Science Park. Income could consider that of the individual or the household.

There is no requirement to refer to the location and/or job prospects.

Qualities of A grade candidates: Three appropriate questions are described and justified well, eg questions address employment, transport accessibility, environmental issues. The questions are justified in terms of the reason that the question is asked and/or the design of the question (closed/open etc). The nature of a Science Park is understood. The answer is generally logically ordered and well presented.

Other Comments: Question 4(b) was generally well answered with candidates making good use of the information on the map and suggesting appropriate extension questions. Few candidates erroneously repeated one of the questions given in the resource. A range of attributes enabled candidates to achieve high marks, eg setting out the suggested questions clearly and in a format resembling a questionnaire; justification in terms of the content of the question (the most common approach); and/or justification in terms of the design of the question (closed/open questions etc.). Most good questions considered employment, access and environment issues. Good justification went beyond a weaker candidate's trait of giving little more than a repetition of the question. Weaker candidates posed at least two similar questions and/or questions that were only loosely linked to the stated objective of the survey. A substantial number of candidates did not understand the function of a Science Park, mistaking it for a leisure facility.

2690 Geographical Investigations 2

General Comments

Although fewer in number, entry for this session was of a high standard. Most candidates displayed a sound understanding of the design and format that the studies should take. In contrast with previous sessions there were many more urban studies showing a good variety of methods and data presentation. Most reports were of sufficient length with fewer being too long this session.

Administration

Most Centres are now in the habit of using the cover sheets for marks summaries and comments. These comments along with annotations in the coursework are useful for the moderation team and allow a little more insight into the candidate and their work. Those Centres who internally moderate their coursework effectively tend to fair better in the final outcome, being far more accurate and consistent. Internal moderation also serves to identify problems at a departmental level, leaving Centres are in a far better position to solve them.

If the Centre has ten or fewer candidates it should send the entire sample together with the MS1 and Authentication forms to the Moderator. This will enable faster processing. There were very few clerical errors this session.

Choice of Subject

Topics were well chosen and proved to be very successful in a majority of cases. Candidates had obviously been given good guidance on choosing areas that were simple yet yielded enough quality primary data. Many of the aims and hypotheses were straightforward and resulted in candidates being able to maintain focus throughout their studies.

The more successful topics ranged from microclimate studies, urban heat islands, soil variation on slopes, longshore drift studies, applications of the Burgess Model to urban areas and infiltration studies. Improvement was also noted in urban studies with candidates exploring topics that required far more variety of data collection methods. Candidates should be cautioned against basing their studies around questionnaires. Far more is required at this level. Crime level in urban areas was a popular topic although some candidates did not match primary and secondary data very successfully, particularly where environmental quality surveys were involved. Candidates should be encouraged to choose secondary material for this topic very carefully.

IT generated studies were perhaps not as successful this session with some candidates falling into the trap of producing extended essays rather than a report that analysed data in a number of different ways. It is advisable for candidates to choose topics that will yield a quantity of numerical data that they can do something with – draw graphs, run some statistical tests etc.

General Notes on Aspects of Format

Introduction

Introductory paragraphs and synopses were well done and were in many cases succinct and relevant. Care must be taken with the inclusion of superfluous maps and poorly presented IT generated maps.

Focus of study

Aims and hypotheses or key questions were generally very focused and concise. This section is a crucial part of the study for it should allow the candidate to see if the topic is actually possible. Changes in direction may have to take place at this point. If the focus is too vague then problems will be incurred in designing the method and writing a good quality analysis. Candidates tend to lose their way very quickly if the focus is too broad and vague. Three to four simple, focused hypotheses or questions is ample. There is still some confusion over hypotheses – it should be a statement about what is expected to happen, according to theoretical knowledge.

Hypothesis – particle size will decrease downstream.

Key Question – What is the extent of the CBD?

Aims and key questions or hypotheses should be linked.

Presentation of Data

Data presentation was far more accurate this session, particularly the construction of scattergraphs. Figure numbers, sources, titles and keys were also better.

If fold out sections are to be included please use A3 paper. Some candidates insist on using large fold out sheets that are too bulky and, for the most, contain rather superfluous information. A large sheet crammed full of information can be difficult to read and can often detract from overall presentation.

Analysis

If the precise focus for the study has not been established then this section will fall apart and prove extremely difficult for the candidate to write. Good candidates often write their analysis treating each hypothesis or key question separately and conclude with a brief overview.

Significance of statistical tests, error, bias and anomalies were all better understood this session and most candidates were able to apply some geographical context to these discussions.

Evaluation

Again a difficult section if the focus of the study is not clear. It may be useful to encourage candidates to use sub headings to organise their thoughts.

Validity of results – Not just strengths and weaknesses, but significance of their results.

Extension and Alternative Strategies – How could the study be extended to afford some more significance and improvement? Could additional variables be included? Could additional methods be used?

Usefulness of Outcomes – Not only who could use this type of study, but how this topic and the method of research fits into current geographical theory. This section could also include some speculation into future developments and sustainability. Many topics can be tied into urban planning and climate change.

2691 Issues in the Environment

General Comments:

The most popular questions were questions 1 and 7. The remainder of the questions were all attempted, some by very few candidates.

There appeared to be no difficulty in completing the paper and only minor rubric infringements.

The general quality of responses was good with the majority of candidates showing a reasonable level of understanding.

At the higher level, candidates combined this with appropriate and detailed case studies to construct impressive answers. In the middle mark ranges locational detail was less detailed and not always well linked to the question. At the lower levels, candidates showed tentative understanding and had limited locational knowledge. Identification of, and response to the commands often differentiated responses.

Comments on Individual Questions:

- 1 (a) Candidates generally approached the question in one of two ways. They either considered the impacts of hazards in LEDCs or they considered the impacts of hazards in LEDCs relative to MEDCs. Either approach was satisfactory and gave the opportunity for achieving at the highest level. Candidates generally used the resource effectively and were able to consider a range of primary and secondary impacts. At the higher levels, links to economic development were developed and a number of locational case studies brought in to develop a thorough understanding of the question.
- (b) (i) Responses to this question were variable. The majority of candidates were able to show a good general appreciation of the question and made points about prediction and preparation. At the lower levels, responses were often quite vague, often simply re-stating the question with general points about 'learning from the past'. At the higher levels, candidates developed these ideas by reflecting on how past events shape the management of hazards, often quoting examples such as Kobe. A small number of candidates developed these ideas further by making observations about the study of past events, for example, seismic gap theory. This approach, when combined with appropriate case studies was usually very successful.
- (i) Most candidates showed a good general understanding of the question and were able to offer detailed observations about classification by physical process. A significant proportion went on to offer detailed observations about each of the physical processes, in many cases with the help of appropriate exemplars.

At the higher levels, candidates developed the idea of classification further by considering other factors, including magnitude, frequency, cost, impacts etc. Candidates who showed this broad appreciation of the question and brought in some exemplification were usually very successful.

- 2** Few candidates attempted this question.
- (a)** Candidates generally used the resource effectively and were able to consider a wide range of potential climatic change impacts. At the higher levels, candidates used appropriate examples to make points about temperature stress, agricultural change and the potential impacts of increased pollution and disease.

A significant proportion of candidates brought in ideas about the increasing threat of hazards, using examples of recent hurricane and flooding events as possible evidence.

At the lower levels, candidates either simply repeated points from the resource or based their response on reasons for climatic change rather than impacts.

- (b) (i)** The interpretation of 'short' and 'long' term forecasts was variable; in a number of cases it was translated as a few days or periods of hundreds of years. This interpretation was at times self limiting since it tended to push candidates into the debate about global warming, where they often began to drift away from the question. A more successful approach often considered short-term forecasts in relation to weather events and gave a useful opening to the question. Candidates using this approach often considered 'long term' as seasonal and used this idea to develop points about agriculture, travel and tourism.
- (ii)** Few candidates addressed this question very effectively; in many cases knowledge was vague and responses drifted into discussion about causes rather than management.

Those candidates who shared a good understanding often started by making it clear why atmospheric pollution is an international issue and then building up a logical case for the need for international co-operation in dealing with it. At this level, discussion about national policy (usually the United Kingdom) and European Union regulations were considered, as well as observations about international environmental conferences.

- 3 (a)** Candidates generally used the resource effectively and were able to identify a range of opportunities. These were generally related to the wildlife and the scenery, often considering the 'wilderness' aspects of the area as a major attraction. At the higher levels, candidates went on to consider a broader range of possibilities which frequently included activity holidays with mountain regions in Scotland and the Alps used as examples.
- (b) (i)** Responses to this question varied from those that clearly knew very little about the changing patterns of glaciers and ice sheets to those that had a very clear understanding. In the first case, discussion was often limited to ideas about changing climate and evidence of past glacial periods. In the second, candidates frequently discussed a range of complex reasons for change which often included detailed observations about climate change and how this affects the distribution of ice. Both natural and human causes of climate change were considered and the level of technical understanding was often very impressive.
- (ii)** The focus for the majority of candidates was Antarctica and Alaska. The general level of understanding was sound with a number of candidates using very specific locational detail to identify the potential threats that these areas face. The appreciation of management strategies was more variable, although a number of candidates had a very detailed grasp of the way that the Antarctic is being managed. The command, 'How effective', implied an element of evaluation which was not always well considered.

- 4 (a)** Candidates approached this question in two ways. Some candidates interpreted, 'being affected' by suggesting a number of ways in which human activity is changing the landscape. Focus was largely on forestry, agriculture, tourism and mineral exploitation. Other candidates interpreted, 'being affected' by considering the processes in which landscapes become degraded. Focus here was largely on biomass reduction, food chain considerations and erosion/desertification. Either approach, when combined with good use of the resource and additional exemplification was able to achieve in the higher levels.
- (b) (i)** There were some excellent responses to this question, with a number of candidates identifying a range of detailed locational examples and developing impressive responses around them. At the highest level, candidates then went on to develop their discussion by bringing in issues about sustainability.
- (ii)** Most candidates showed a sound understanding about the pattern of rainfall in tropical rainforest, savanna and desert areas. A number were able to describe the rainfall pattern in some detail and offer complex reasoning for the pattern. Linking rainfall to the characteristics of these areas was more variable. At the lower levels, candidates simply identified basic biomass differences linked to climate, while, at the higher levels, candidates made detailed observations about flora and fauna and adaptation links to climate characteristics. Technical detail was often sound; locational exemplification slightly more limited.
- 5** Very few candidates attempted this question.
- (a)** Candidates generally used the resource effectively and were able to identify the ways in which aid agencies help to feed people in poorer parts of the world. Development beyond the resource was often limited to generalised or vague observations with only tentative locational detail.
- (b) (i)** Most candidates showed a good level of general awareness about the question and were able to offer observations about the global supply and demand for food. Beyond these general points, debate was often limited to descriptive observations about areas of food deficit and food surplus with only tentative discussion. At the higher levels, candidates began to consider differences within poorer countries with specific points about rural and urban access to food.
- (ii)** Responses tended to focus on the European Union and/or the Green Revolution. Understanding of the Common Agricultural Policy (CAP) was often rather vague and candidates often made general points which they failed to link back effectively to the question. Understanding of the Green Revolution was variable, although a small number of candidates showed a clear appreciation of its aims and methods. This was not always translated into 'food production' and consequently failed to fully address the question.
- 6** This question was attempted by very few candidates.
- (a)** Responses were largely descriptive accounts from the resource with limited development. The idea of 'economic regeneration' was rarely fully considered. 'Use Fig (b) to support your answers', suggested a clear need for additional exemplification. This was generally not forthcoming and consequently responses were self-limiting.
- (b) (i)** Most candidates showed a basic understanding of the question but often responses lacked depth and detail. The key idea of what constitutes economic, social and environmental quality of life factors was often not well considered, responses usually simply describing issues. The main focus of the issues used was environmental, often quite general points about traffic congestion, pollution or litter. Basic observations about housing issues, lack of services, crime and personal security were largely ignored.
- (ii)** No candidates attempted this question.

7 (a) Candidates generally used the resource effectively and many brought in a range of appropriate exemplars from various parts of the world. The key to the question was 'conflict', especially the broader-conflict between economic development and socio/environmental management. Candidates did not always appreciate this, frequently drifting into lists of issues such as litter, traffic congestion or footpath erosion. This approach provided some insight into the question by identifying pressures on sensitive areas, but was often self-limiting. Those candidates who had a clear understanding about the idea of conflict, both in general and specific terms, often did well.

(b) (i) There were two slightly different approaches to this question. Candidates either considered the fact that general increases in wealth tend to lead to increases in both supply and demand for tourism, or they considered tourism as a tool for economic development, especially in LEDCs. Either approach was satisfactory and gave the opportunity for achieving at the higher level. Candidates who adopted the first approach generally showed a sound general appreciation about the links between wealth and tourism demand, but frequently lacked specific locational detail about growth. Those that adopted the second approach often had a good understanding and were able to use a good range of locational examples. A small number drifted away from the question by developing ideas about environmental pressures and management.

The idea of 'to what extent' as commanded by the question was not always well considered.

(ii) There were some excellent responses to this question and many candidates showed an impressive level of understanding. A wide range of appropriate examples were used, often with considerable amounts of detail. The idea of socio/economic and environmental exploitation was generally well considered, both in absolute and relative terms. Many candidates clearly addressed the command. 'Discuss the view', by offering balanced observations about both the positive and negative aspects of tourism development. A very small number of candidates drifted into discussion about MEDC locations; this was clearly not appropriate since the question was focused on LEDCs.

8 Few candidates attempted this question.

(a) The majority of candidates used the resource effectively to identify the changes related to declining industrial areas, with some using comparative examples such as Clydeside, Teesside or South Wales. The level of discussion was, at times, limited to descriptive points about the need for jobs and industry with only tentative ideas about the relative part played by government and private investment.

At the higher levels, candidates began to 'consider the importance' as commanded by the question and made useful points about how government investment is often used to 'clean up' brownfield areas and develop infrastructure. These candidates then went on to suggest that this might then encourage private or mixed investment.

(b) (i) The general level of understanding was not always very good and often candidates were sidetracked into considering a single idea such as TNCs or communications. This approach provided a useful insight into the question but was often quite self-limiting. The more developed responses offered a definition of globalisation and then expressed the idea through a range of factors; often including political and economic links, trade and TNCs or specific economic activities. (Agriculture, banking and tourism were the most popular.)

- (ii) Candidates generally identified a number of 'impacts' and were able to offer a balanced assessment by making observations about both positive and negative impacts in relation to LEDCs. Exemplification about a specific corporation was generally quite vague and locational detail incomplete. The most commonly used TNC was Nike, although often the focus was on a single country in which it operates.

Candidates generally focused on impacts in LEDCs and rarely considered the fact that TNCs also operate in other parts of the world. As such the question was often seen as an, 'assessment of the impacts of TNCs in LEDCs', and consequently responses were not fully developed.

**Advanced GCE (Geography B) (3833, 7833)
January 2007 Assessment Series**

Unit Threshold Marks

Unit		Maximum Mark	a	b	c	d	e	u
2687	Raw	90	65	58	51	44	37	0
	UMS	90	72	63	54	45	36	0
2688	Raw	90	69	61	54	47	40	0
	UMS	90	72	63	54	45	36	0
2689	Raw	60	43	39	35	31	28	0
	UMS	120	96	84	72	60	48	0
2690	Raw	90	72	63	54	46	38	0
	UMS	90	72	63	54	45	36	0
2691	Raw	90	69	62	56	50	44	0
	UMS	90	72	63	54	45	36	0

Specification Aggregation Results

Overall threshold marks in UMS (ie after conversion of raw marks to uniform marks)

	Maximum Mark	A	B	C	D	E	U
3833	300	240	210	180	150	120	0
7833	600	480	420	360	300	240	0

The cumulative percentage of candidates awarded each grade was as follows:

	A	B	C	D	E	U	Total Number of Candidates
3833	10.53	36.84	42.11	73.68	89.47	100.0	19
7833	0.00	50.00	100.00	100.00	100.00	100.0	2

21 candidates aggregated this series

For a description of how UMS marks are calculated see;
http://www.ocr.org.uk/exam_system/understand_ums.html

Statistics are correct at the time of publication

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