OCR
RECOGNISING ACHIEVEMENT

GCE

Geography A

Advanced GCE **A2 7832**

Advanced Subsidiary GCE **AS 3832**

Report on the Units

January 2007

3832/7832/MS/R/07J

Oxford Cambridge and RSA Examinations

OCR (Oxford, Cambridge and RSA Examinations) is a unitary awarding body, established by the University of Cambridge Local Examinations Syndicate and the RSA Examinations Board in January 1998. OCR provides a full range of GCSE, A level, GNVQ, Key Skills and other qualifications for schools and colleges in the United Kingdom, including those previously provided by MEG and OCEAC. It is also responsible for developing new syllabuses to meet national requirements and the needs of students and teachers.

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by Examiners. It does not indicate the details of the discussions which took place at an Examiners' meeting before marking commenced.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the Report on the Examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

Any enquiries about publications should be addressed to:

OCR Publications
PO Box 5050
Annesley
NOTTINGHAM
NG15 0DL

Telephone: 0870 870 6622
Facsimile: 0870 870 6621
E-mail: publications@ocr.org.uk

CONTENTS

Advanced GCE Geography A (7832)

Advanced Subsidiary GCE Geography A (3832)

REPORT ON THE UNITS

Chief Examiner's Report

General Comments

The performance of candidates has again been approximately equivalent to previous sessions. There was considerable variation between Centres and within Centres. There is a continued trend to entering candidates in January, possibly to reduce pressure in the summer, so fewer candidates are those re-taking. The top quartile of candidates produced work of an impressive quality showing a very encouraging level of knowledge, understanding and application with some excellent and detailed examples or case studies.

AS
Assessment is largely by short structured questions. Performance did vary across the components. Responses to 2680 (physical environment) remain relatively weaker than 2681 (human environment) but the weakest element was the written section of 2682 (geographical investigation) although this was stronger than in the summer. As usual 2682 was lifted by the report component in which nearly 75% achieved at the highest grade.

A2
Assessment is largely by extended writing which allows effective differentiation. Few candidates were entered for 2684, the synoptic paper, but a large number took 2683. Performance was similar to past examinations.

As A2 is assessed via options it is possible for candidates to experience a limited range of geography. The summer pattern was repeated with few centres studying applied climatology and service activities in 2683 and the geography of the EU and managing rural environments are unpopular in 2684. This selectivity does re-emphasise the importance of the synoptic paper which draws together the strands of the whole two year A level geographical experience.

Overall

There have been very few communications from centres expressing concerns about aspects of the unit examinations this session but concern was expressed at AS level over the restricted space for candidates to write their answers. Candidates can no longer write on the blank back pages but can still use additional sheets. The reduction in choice in 2683, with two questions per option instead of three, seemed to have no adverse impact on candidates' performance. Marks schemes have to be very flexible as candidates have very inventive minds and read into questions some quite original, and often valid, interpretations.

There remain some common themes throughout all the components:

- Candidates must carefully read and answer the question set rather than produce prepared answers that lack relevancy, such as responses to Q.6 in 2684;
- Candidates need to understand and use effectively geographical definitions and technical terms, especially in 2680. These were often poorly understood even by more able candidates;
- In short section answers, candidates would be best advised to develop a few points in depth rather than many superficial ones;
- Often the level of candidate's response is held back by the poor quality of English. The use of paragraphs is still not well understood at A2;
- More candidates should emphasise the spatial context of their work and stress location. Some need to refer to far more examples or case studies. A greater use of sketch maps at A2 would be welcomed.

Coursework at all levels also suffered some common limitations:

- Too many candidates still produce over-length work often with excessive appendices or annotations;
- Excessive repetitive diagrams representing the same data;
- Including **all** the questionnaires used within the appendices;
- Candidates didn't always understand why they were using the statistical tests nor the implications of the results they achieved;
- Centres should ensure candidates do not use plastic folders and greater care needs to be taken in filling in the cover sheets.

2680: The Physical Environment

General Comments

The overall performance of candidates was probably slightly below previous January sessions; two-part questions did pose significant problems for a majority of candidates, reducing their marks. Q 1(c) and Q 4 (c) both produced a large number of responses scoring very few or no marks, because of a clear lack of understanding of what the terms “drainage density” and “island arcs” meant. In a significant minority of cases, candidates did not attempt a response to these two-part questions.

Although the Hydrology section did generally produce the best answers, this was not as consistently so as in previous sessions. Answers to Ecosystems were the weakest overall, but it was encouraging to see the Atmosphere section producing more good answers than has been the norm in the past. The Lithosphere section was, in line with previous years, variable in standard.

Where candidates failed to respond at a high level, some familiar flaws were apparent, and improvements could be made in a number of areas:

- the use of precise geographical terminology: for example some candidates used “infiltration” and “percolation” interchangeably when they are distinctly different processes, while others showed confusion over the terms “weathering” and “erosion”;
- in 10 mark questions, there remains a tendency for candidates to explore a lot of separate points with little detail, which prevents access to L3, rather than consider a limited number of points and develop them fully;
- candidates mistake assertion for explanation, illustrated by the following quote from an answer to Q. 1(c): “The hydrograph will be flashy because of the high drainage density.” This response misses the crucial element of explaining why high drainage density will lead to a flashy discharge;
- the tendency, especially in 10-mark questions, to produce material that has been learnt, but which is not used to answer the question posed.

On the positive side, many candidates responded well to those questions, such as Q. 3 (a) (i) and Q. 4 (a), requiring description of the resources provided. Identification of trends, evidence from the resource and anomalies were apparent in many responses.

In the context of the space available on the examination paper, it is encouraging to report that overrunning the space allocation is relatively uncommon. Where candidates do need to use additional sheets, however, they should be instructed to indicate that the answer is continued on the separate sheet. A number of scripts stopped in mid-sentence at the end of the available space and did not indicate that the rest of the answer was on an additional sheet.

Comments on individual questions:

Question 1

The question on **Hydrological Systems** was less consistently well answered than in previous sessions. However, definitions of "infiltration" were generally good (Q1a), with most identifying the transfer from the surface to the soil store. Weaker responses tended to refer vaguely and inaccurately to the movement of water "through the soil". Explanations of how rock type affects water movement (Q1(b)) were largely limited. Most candidates identified permeability and/or impermeability as a relevant factor, but explanations of its influence lacked development. Very few showed awareness of the difference between permeability and porosity. Those that did quickly demonstrated L2 responses. Some candidates persist in using terms like hard and soft, when they actually mean impermeable and permeable. The weakest part question in this section related to drainage density (Q1(c)). Over half the candidates showed little or no understanding of what drainage density meant. Many suggested that it would lead to longer lag times and lower peak discharges, rather than the reverse. Amongst those who did identify higher peaks, shorter lag times and steeper rising and falling limbs, only a few explained this response in terms of the larger number of tributaries per unit area, reducing the distance water had to travel over the surface, or reduced level of infiltration, producing a quicker transfer. Contrasts between a remote rural area and a suburban area were generally good, and produced the best responses to questions worth 10 marks. Almost all candidates achieved at least L2. Some candidates did not reach L3 either because they provided no significant comparison between the two areas or they did not develop their explanations. An example is provided by the following response:

"In the suburban area there is a large impermeable surface and so baseflow will be much greater in the rural area."

This statement contains no explanation of the consequence of why baseflow will be greater in the rural area. However, candidates did show good use of and reference to the figure through identification of specific features shown (vegetation, buildings, impermeable surfaces) or the flows marked onto the diagram.

Question 2

Once again, answers on **Ecosystems** were a little disappointing, revealing a lack of depth of knowledge and understanding. Knowledge of "gross primary productivity" was sound (Q2(a)(i)), and showed improvement, compared to previous attempts at defining this term. It was particularly good to see so many candidates recognising that respiration is part of GPP, although the definition of the "productivity" aspect of the term, was not always so clearly apparent. The vast majority of candidates correctly identified one store and one flow from Fig. 2 (Q2(a)(ii)). A few responses did confuse the nutrient cycle with the hydrological cycle and, consequently, referred to hydrological flows and stores, rather than biological ones, although there is considerable overlap between the two (e.g. precipitation, run-off). Descriptions of the nutrient cycle shown in Fig. 2 were generally good, although some weaker responses simply referred to Store A, Store B and flows, and failed to identify which was which. Such responses remained in L1. Similarly, some responses made no reference to the figure at all, and also remained in L1. Responses to the now familiar question about how human activity might modify the nutrient cycle showed more understanding than in previous years. Most responses described the consequences of activities, such as deforestation, clearing litter, coppicing, but fewer developed these descriptions to explain how the human activity leads to the changes described. Some human activities identified were highly dubious in the context of the question, which referred specifically to a broadleaved deciduous woodland: the application of fertilisers being a case in point. The question of succession in a named sand dune ecosystem (Q2(b)) was answered vary variably, with a majority producing limited responses. The question demanded a named and located ecosystem, and a significant number of responses were highly inaccurate in this respect. Braunton Burrows, a favourite example, was located in Northumberland, Dorset, Wales and Norfolk, as well as inland in Derbyshire. Many candidates gained little credit because they did not concentrate on "physical" factors, concentrating on human activities, such as trampling, army firing ranges, and

introduction of new species. Very few candidates achieved L3 here, even when considering physical factors, because responses lacked explanation. Links were made between relevant physical factors – salinity, wind, pH of soil, moisture availability – but few explained how these affected the succession. Knowledge of the actual species involved in succession on the chosen sand dune system was relatively weak: very few mentioned any species beyond marram grass.

Question 3

Atmospheric Systems produced better answers than in previous years, with candidates able to respond positively to the resource and to show some knowledge of the local energy budget. Descriptions of the pattern of incoming solar radiation were generally good (Q3(a)(i)). The best responses clearly reached L2 by identifying trends – the decline polewards – and anomalies, such as the higher values in the Tropics than at the Equator, and quoted specific figures. Responses that simply recorded values in particular locations were restricted to L1, because of the lack of attention to any pattern. Reasons for the differences between high and low latitudes (Q3(a)(ii)) were less well done. Some candidates continue to assert that the distance from the sun is relevant, when it is insignificant over 93 million miles. The better responses identified the curvature of the earth, so that solar radiation is spread over a wider area, and the volume of atmosphere passed through, leading to increased reflection and backscatter. Many responses attempted explanations based upon albedo, which was incorrect for the resource, which concerned **incoming** solar radiation, not received radiation. It was also apparent that a significant number of candidates misread the question, and discussed the influence of **altitude** rather than **latitude**. The identification of ways in which energy can be transferred locally (Q3(b)(i)) produced generally good answers, where candidates recognised the term "local scale". Responses referring to larger scale transfers, such as air masses, Hadley cells and ocean currents failed to gain credit. The question on frost (Q3(b)(ii)) produced highly variable responses, but the majority showed encouraging understanding of the conditions under which frost occurs. Lack of cloud cover at night and the consequent loss of terrestrial radiation appeared frequently, but there was a tendency amongst some responses to discuss the reverse – cloud cover retaining heat – without making the link to frost. Some candidates simply did not read the question carefully and discussed ways in which frost damage could be reduced.

Question 4

The **Lithosphere** section again produced very mixed answers. Descriptions of the distribution of volcanoes (Q4(a)) were generally good. The best answers identified the linear pattern associated with plate boundaries, supported those with evidence and identified some anomalies, such as those around Hawaii. Distinctions of density of occurrences between destructive and constructive margins also gained credit at higher levels. Most candidates understood that volcanic activity at constructive margins (Q4(b)) was associated with plates moving apart and the consequent upwelling of magma. Higher level responses identified the mechanisms responsible for plate movement and the release of pressure, which allows magma to reach the surface as lava. The formation of island arcs (Q4(c)) was poorly understood. Only a minority of candidates realised that such features are associated with destructive plate boundaries, and some of these erroneously identified oceanic/continental boundaries, rather than oceanic/oceanic boundaries. Many answers simply repeated some of the material in the previous questions, while many suggested that island arcs are associated with hot spots. Where candidates did correctly identify oceanic/oceanic plate boundaries, several did not understand the processes operating at such a boundary. The crumpling of crust was a common misconception, and few recognised the melting of subducted plate material (amongst other things) producing less dense material rising through the overlying plate. Responses to factors determining the rate and type of weathering (Q4(d)) were mixed, but few were outstanding. The principal problem here was identifying and focussing upon the influence of factors, such as climate, vegetation, human activity, rock type. Many answers started from the process and, consequently, only incidentally identified or discussed factors. A significant number of candidates showed a fundamental misunderstanding of the distinction between weathering and erosion, especially through reference to wind, which is not a weathering process.

2681 The Human Environment

General Comments

This examination produced a wide mark range overall; there was no significant difference in outcome between the three main elements of population, rural settlement and urban settlement. Most candidates were able to interpret and make good use of the source material provided in the insert:

- Population - scatter graph (infant mortality rates and GNP per capita);
- Rural settlement - bar graphs (shops and services in the upper Conwy basin);
- Urban settlement - choropleth / land use maps (personal income, Christchurch, NZ).

At the upper end of the mark range, the responses were very good with a number of candidates achieving level 2 for each part question. These candidates were clearly capable of meeting the requirements of the mark scheme; they were able to accumulate high marks as a result of consistently sound responses throughout their scripts. Correct use of terminology enabled responses to be concise and to the point.

At the lower end of the mark range, the performance of the candidates was more inconsistent. There were many responses which included bare, unconnected statements; these rarely offered little more than description of the data when explanation was clearly required. In these instances, the candidates failed to apply their understanding to the unseen data provided. Answers such as these were awarded marks mainly in level 1. At the lowest level, the scripts were characterised by very brief, incomplete responses or by blank sheets where questions were not attempted at all.

These matters are discussed in more detail in the main body of this report where each part question is considered. Inevitably, it is candidates achieving marks in the lower levels to which this analysis is most applicable; it may also be of value to Centres in confirming and reinforcing the good practice which is so evidently widespread. Actual responses (italics), where the awarded level is indicated, may be helpful in preparing future candidates. Three particular issues are emphasised:

- Definitions

The precise definition of terms, which are explicitly stated in the Specification, need to be learned. This is obviously necessary in the straightforward definition questions. In addition, it is of value in the longer questions where explanations are required; here the correct use of terminology produces responses which are concise and in which understanding is more convincing.

- Development of explanations

Many six mark questions require explanation. Reasoning should be developed beyond a simple statement of basic factors. There is enough space for candidates to demonstrate further understanding of each relevant point. See comments on Q1(a)(iii) and Q3(b) below.

- Explicit statement of relevant links

These are essential to achieve marks in AO2 and AO3; in effect, they enable the candidate to answer the question. In the two extended sections, the higher levels are not likely to be achieved if candidates simply state facts alone. Knowledge and understanding must be applied specifically and precisely to the question which has been set. See comments on Q3(d).

Comments on Individual Questions

1. Population

Question 1 assessed knowledge and understanding of infant mortality rates and international migration. The stimulus material was a scatter graph showing the GNP per capita and the infant mortality rate of selected countries.

Q1(a)(i) required a definition of infant mortality rate. The two marks were achieved by stating correctly the relevant age of death and the appropriate rate. A typical response worth full marks was:

…the number of children who die before reaching the age of one out of every 1000 live births.

Clear and accurate statement of the rate was a difficulty for some candidates.

Q1(a)(ii) requested a description of the scatter graph (Fig.1). As in many previous describing questions of this type, a typical level 2 response needed to include a summative comment supported by evidence from the graph. Many candidates achieved full marks with comprehensive answers such as:

"Fig. 1 shows a negative correlation between the infant mortality rate and GNP per capita. This means that the higher the GNP per capita the lower the infant mortality rate. For example Sierra Leone has a low GNP per capita of less than 1000 US $ and a high infant mortality rate of 165. The UK however has a high GNP per capita of 32,000 and a low infant mortality rate of 5. There are however some anomalies such as Russia which has a low GNP per capita of 10,000 but also a low infant mortality rate of 10."

Q1(a)(iii) asked for explanation of the variations in infant mortality rates. The best level 2 answers included two reasons with well developed understanding and clear, explicit links to the infant mortality rate. Level 1 responses offered only either one reason or little more than a basic statement of two factors which often were not explicitly linked to the infant mortality rate. Even though space is limited, there are sufficient numbers of lines for candidates to demonstrate understanding and linkage beyond the basic as shown in the response below:

"In LEDCs such as Sierra Leone there is a high infant mortality rate because of poor nutrition. The people cannot afford food and they have difficulty in growing it because of inadequate farming conditions such as lack of tools and machinery. This leads to malnutrition diseases which cause death of young children in particular. However in MEDCs such as the UK where the infant mortality rate is lower food is more available and people are educated to keep healthy with a balanced diet. Also in LEDCs there are not many hospitals and people do not have easy access to them because of poor personal mobility. There are also not many doctors in LEDCs and not many medicines available. MEDCs have access to vaccinations such as MMR protecting children from fatal disease."

Q1(b) was a definition question requiring understanding of the term international migration. There were a surprising number of candidates unable to establish that this would involve a change of residence. Although not essential, some responses reinforced the understanding with a brief example as below:

"The permanent or semi-permanent movement of people from one country to another. For example, Turks into Germany after World War 2."

Q1(c) was the first of the 10 mark questions on this paper requiring a more extended answer and giving candidates the opportunity to apply and develop their knowledge and understanding. Most candidates correctly established that it was the consequences of international migration that were required, and not the causes, although some unnecessarily preceded the relevant part of their response with lengthy reference to push and pull factors.
In many answers, there was merely a description or list of the consequences; higher marks might have been achieved if some further understanding was demonstrated. The ability to develop responses beyond the basic is a clear differentiating factor throughout this entire paper and is encouraged in all 6 and 10 mark questions.
Answers might also have been improved by simple planning. Classification of the consequences as either economic, social and demographic or the grouping of consequences in terms of donor and receiving countries provided structure and greater clarity in the better responses.
The most commonly cited examples were the post-war migrations of Turkish guest workers to West Germany and Mexicans to USA (California). There were some particularly good answers based on the former whereas in some instances the latter often drifted into a general account of the urban problems of Los Angeles.
Other examples included West Indian migrants to Britain in the late 1950s or the fleeing of Rwandans to Tanzania in the 1990s. In less specific terms, a number of candidates referred to the UK as a receiver of east Europeans.
Examiners were looking for clear statement and understanding of the consequences of specific international migrant flows. A sound response need not have been confined to one migration; in fact many of the points made by the better candidates were illustrated by a range of appropriate examples.
Those responses which were speculative, or which digressed into emotive personal views or which were based solely on urban problems that could not be shown to be the result of international migration were often awarded marks in the lower levels. There were some instances in which unsuccessful convoluted attempts were made to fit pre-rehearsed responses to this question such as the effects of Mexico City's rapid population growth on the environment and even China's 'one-child' population policy.

2. Rural Settlement

Question 2 tested candidates' understanding of the distribution of service provision in a rural area. There were specifically requested definitions (settlement hierarchy and centrality) and other part questions which required correct use and understanding of terms such as threshold population, the range of a good and trade area. The data provided was based on a map of shops and services located in the rural settlements of the upper Conwy basin in north Wales.

Q2(a) required a definition of the term settlement hierarchy. Some candidates achieved the full two marks but surprisingly for a term which is clearly stated on the Specification many demonstrated only a vague understanding. Imprecision in all the definitions requested on this paper and in previous papers is a recurrent problem.

Q2(b) asked for description of the distribution of shops and services in the area of the upper Conwy basin as shown in Fig. 2. A critical factor in the quality of the response was a clear description of the geographical / spatial pattern. Lower level responses simply provided a list of numbers of shops and services in named settlements without any attempt to consider any aspect of the overall pattern. Candidates achieving the higher marks were able to describe the contrast between the lower part of the basin, where greater numbers and variety of shops and services are found in the dominant settlements of Llanrwst and Betws-y-Coed, and the upper basin, where fewer shops and services are found in the smaller settlements of the tributary valleys. As in all the describing questions on this paper, full marks were achieved by specific reference to the data provided in the resource. A typical level 2 response was:

"It appears that the area with the largest amount of shops and services is Llanrwst followed by Betws-y-coed further south. Both these areas have a high level of comparison shops,

accommodation and restaurants. As you move further south to the more rural areas, the shops begin to disappear and only services are available, for example Penmachno has no convenience or comparison goods, only services, 8 professional and general and 2 accommodation. Further south Cwm Penmachno has even fewer with just 6 services available. As you move to the east there are a few more services e.g. in Pentrefoelas but still not as many as in the north. The overall pattern is that it is along the main roads that you find the most services and shops."

Q2(c) required explanation of the distribution of shops and services in the upper Conwy basin. Population of settlements and accessibility were the two main factors which were used to explain how shop and service thresholds had been met. An understanding of the term threshold population is important in developing the response to this question. These functions will locate only where this customer base can be achieved. Candidates are encouraged to use correct terminology which will help in the writing of concise and accurate responses especially where space is limited. Below is an example of a level 2 response which makes specific use of the data in Fig. 2:

"Comparison shops sell high order goods so they therefore need a higher threshold population to keep profitable. This means that comparison shops are only found in settlements with larger populations such as Llanrwst. Shops selling conveniences goods need lower threshold populations so they can be located in smaller settlements such as Dolwyddelan. Shops that need higher threshold populations have to be in settlements with large catchment areas that are easily accessible such as Llanrwst which is on the A470 and is not in the mountains. Settlements such as Cwm Penmachno that are on land over 200m are less accessible, therefore have smaller catchment areas, and cannot support higher order comparison shops or convenience shops."

In **Q2(d)** there was some misunderstanding of the term 'trade area'. This has been used in past papers and it is an established term synonymous with catchment area and sphere of influence. Even where candidates were able to identify relevant factors which would influence the trade area, many did not make the relevant link to the actual effect on its size or shape. The information clearly available on Fig. 2 included the number and types of shops and services in Llanrwst, the road network and the location of shops and services available in competing centres. Candidates are urged to use the information, to which they have already been directed (and described in Q2(b)), in the application of their knowledge and understanding. The response which follows does make the link and uses the data in Fig. 2:

"The size of Llanrwst's trade area is large because of its accessibility from other settlements nearby along the A5 and A470. It has 30 comparison stores. Comparison stores sell high order goods, these are durable items which are often expensive and people are prepared to travel to buy them. Llanrwst's trade area would however be larger if it were not in such close proximity to Betws-y-Coed which is just 4km away and also offers 25 comparison stores to the population of the upper Conwy basin."

Definition of the term centrality, assessed in **Q2(e)(i),** was not well answered. This is a basic term, stated in the Specification, of which many candidates demonstrated limited understanding. A correct response given by one candidate was:

"Centrality is a measure of a settlement's importance as a 'central place' in the area."

Q2(e)(ii) was on the whole answered well. The loss of shops in Penmachno despite the growth in number of dwellings was adequately explained by the following two responses:

"People may own second homes in Penmachno. This means that they are only there for part of the year so the threshold of local shops could not be met. The second home owners may choose to travel in private cars to larger shops and supermarkets."

"Penmachno may have become a commuter settlement i.e. people spend their evenings and weekends there but they shop and spend the majority of their time in bigger more urban areas where there are supermarkets, cheaper goods and more choice. This would lead to a decline in the use of local shops and services meaning they are unable to survive."

3. Urban Settlement

Question 3 examined understanding of spatial segregation in urban areas according to income and ethnicity; in addition, there was an extended question assessing the effects of urban demographic change on the environment. In this instance, the two maps, Figs 4 and 5, included a choropleth map of Christchurch, New Zealand showing the residential pattern of higher earners and a land use map of the same area.

Q3(a)(i) required description of the pattern of adult population earning over $30 001 in Christchurch shown on the choropleth map for 2001. A level 2 mark was awarded if the response included a summative comment supported by data from the map. The most frequently recognised characteristic was that of the higher percentages located in the outer suburbs and the lower percentages of the inner city. Many candidates recognised the anomaly in this pattern pointing out the area of higher percentages north west of the CBD. Below is an example of a level 2 response:

"In general, the further away from the centre the higher the percentage of adults earning over $30,001. For example in the south of R-W and S-H wards the percentage is over 38% and in the north near the coast of S-P ward it is 31-38%. There is also a band of low percentages of people earning over $30,001 in the centre of Christchurch with about 13 neighbourhoods where under 17% of adults earn over $30,001."

Two reasons for this pattern were required in **Q3(a)(ii).** Most candidates made good use of the land use map, contrasting the advantages of living conditions in the outer suburban environment with the disadvantages of the inner city in close proximity to the negative externalities of the industrial zones. Some candidates merely described the land uses shown in Fig. 5 and failed to make the relevant link between income and urban environment.
The following answer was placed in level 2:

"Those with a higher income who are more affluent can choose where they want to live. They have a wider range of properties available to them and so would either live further out from the CBD and away from industrial areas where there is more open space, less pollution and where the area is prettier e.g. near the coast and conservation zones of S-P ward. Those who don't earn as much have less choice where they live and end up near the less desirable industrial areas e.g. in the west of H-F where property is cheaper. They will not have to travel far to work as many might not own cars and cannot afford to commute."

Q3(b) asked for explanation of the spatial segregation of ethnic minority groups in MEDC cities. The better responses included two well developed reasons and in many instances reference to named and located examples supported this understanding. Some answers were however confined to level 1 because the explanations were unconvincing with little more than description or one or two basic statements such as:

"When the first ethnic minority groups move to a country it is obvious that they are going to stick together. As generations have moved on more children are born and people from this ethnic culture move to the country, normally to the same place as the rest of the group. Also they might choose to live in an area where housing prices are lower."

Candidates are encouraged to write concisely but with sufficient development of explanation to make the understanding clear. Correct use of terminology is of value in this process. The following response was placed in level 2. In explaining the spatial distribution of ethnic minority groups in the inner city, it refers to the lower economic status of many and it uses the term threshold population in an appropriate way; there is sensible comment regarding the preservation of culture especially with respect to language:

"Ethnic minorities often situate themselves in areas such as the inner city since the housing is cheaper and it is nearer their place of work. They tend to have lower incomes and can only afford the cheap private rentals of the inner city and they do not have to pay so much for transport to work. They also live in close knit areas for both cultural and physical protection. If they live in a group they can support the threshold populations for their religious centres and food and clothing shops. Retaining their language makes it easier to socialise and to feel less excluded at work."

Finally, **Q3(c)** was the second 10 mark question which required an extended response based on a case study of the candidate's choice; this required explanation of the effects of population change on the environment in an MEDC urban area.
It has been common practice since the inception of this Specification to expect detailed discussion of two environmental problems in order to achieve a level 3 response; this is clearly stated in all past mark schemes. It was surprising therefore that many candidates confined their answer to just one effect, which often led to a maximum mark of 7, at the top of level 2.
There were also many responses which were wholly generalised i.e. bar the place name in the first sentence, the effects described could be applicable to any urban area in the developed world; maximum 6 marks.
A significant number of candidates wrote about cities in the developing world and some based their answer on population change in rural areas.
Again as in the case of Q2(c) some candidates tried unsuccessfully to fit a previously learned answer to this particular question.
It was encouraging to read the best answers which as always were very good, demonstrating a high level of ability and competence in applying knowledge and understanding to the actual question which had been set.
By far, the case material most frequently referred to was that of the Los Angeles area. There were also a number of responses based on London; some referred to the details of specific named areas and associated environmental effects whilst others were of a very generalised nature.
A typically sound response might have included three paragraphs:

- Discussion of the relevant population change(s) including figures, named localities;
- Linked to the first effect on the environment, described and explained including figures and named localities;
- Linked to the second effect on the environment, described and explained including figures and named localities.

This structure is, of course, not the only way to answer this kind of question but it is offered here as a suggestion which candidates might adopt in order to meet the requirements of such questions more easily in future sessions.
Above all, the critical link between population change and the effect on the environment needed to be stated explicitly. Responses in which this connection was not made, and in which candidates took this as an opportunity to write all they knew about the environmental problems of an urban area, did not answer the question properly; their answers were invariably awarded a mark in level 1.

2682/01: Geographical Investigation

The questions proved more accessible to candidates than in June 2006: The most able candidates were stretched and produced some outstanding papers and there were fewer weak papers as lower ability candidates were able to access the marks available. Overall, there was an uneven performance across the paper by individual candidates although well considered, detailed answers for all questions were given by many.

The objective of Question 1 (a) and (b) was for the candidate to show understanding of the selection of a location at which to carry out an investigation. Differentiation was determined by the ability to examine positive and negative issues with exemplification from the candidate's own investigation.

The objective of Question 2 (a) and (b) was for the candidate to show understanding of sampling strategies for the same data at two contrasting locations. Discrimination lay in the ability to (a) consider an appropriate strategy for all three types of data and (b) relevant data collection issues

The objectives of Question 3 (a) and (b) were for the candidate to show understanding of data representation and statistical methods. Discrimination was determined by the ability to (a) demonstrate and justify appropriate methods of representing a dataset (provided as a resource); and (b) the identification of a suitable test of association and the subsequent discussion of its benefits.

Candidates should be reminded to **read the question carefully** – easy credit was lost: in Question 1 for not referring to their own study; in Question 1 (a) for describing how data was collected; in (b) for describing sampling limitations rather than those of the site; in Question 2 (a) for describing the content of the questionnaire; and in Question 3 (b) for describing how to carry out a test of association rather than describing its benefits.

Throughout the paper the use of good geographical terminology was a key discriminator. Candidates should also be reminded that the written text should be easy to read and that the correct spelling should be used for key geographical terms.

Time management: Nearly all candidates attempted all parts of the paper. Some Candidates appeared to run out of time on Question 3 as they had produced such detailed responses for Question 1.

Rubric errors: the most common misinterpretation of the rubric was to suggest more than two limitations/problems on Questions 1 (b) and 2 (b).

Candidates seemed to find this paper a little easier than for June and January 2006. As is typical of this paper, differences in the content and quality of responses reflected differences in teaching and coverage of material for Geographical Investigations.

For all questions, the accepted types of response were flexible, with credit gained either by considering a few issues in detail or by looking more ideas in less depth.

Summary of the Outcomes for Questions 1, 2 and 3

The following observations are similar to – but less acute than – the last session, demonstrating the particular problems posed by this paper. The majority of Candidates clearly understood the requirements of all the questions, with Question 1 (a) and 3 (a) being the most easily understood. Questions 1 (b) and 2 (b) proved the most challenging. All questions discriminated between candidates well.

Question 1 (a) responses were very good overall. Most achieved at least mid Level 2 and many entered Level 3 and gained full marks. Reading the question carefully ensured that Candidates discussed the choice of study site rather than how to collect data from the study site.

Question 1 (b) responses were good overall. Most were Level 2, whilst there were similar (fewer) numbers in Levels 1 and 3. Quite often one limitation was valid whilst the other was not, the invalid one considering sampling issues created by the candidate rather than problems inherent in the location itself.

Question 2 (a) responses were good overall. Most were Level 2, some stayed in Level 1 but few reached Level 3. The main area of digression from this question was in describing the content of the questionnaire; a single strategy to collect all three datasets was usually more appropriate than collecting the data in three separate ways.

Question 2 (b) responses were good overall, with most falling in Level 2. There was confusion between problems of collecting data from the sites with problems caused by a weak data collection methodology. Similarly to 1 (b), a sizeable number of candidates only suggested one valid problem.

Question 3 (a) responses were very good overall. Many entered Level 3 and very few stayed in Level 1. Few candidates did not select a scattergraph and few gave a completely inappropriate method of representing the data.

Question 3 (b) responses were quite good overall, with most entering Level 2. Many did not read the question carefully, giving responses dominated by a description of how to carry out a test of association instead of the benefits of the selected test. Few erroneously selected Mann-Whitney.

As in previous sessions, candidates well versed in their Geographical Investigation performed well in Question 1 but were not necessarily able to deal with the less predictable nature of Question 2, which is not based on their Geographical Investigation directly, but requires application of their knowledge and skills. The outcome for Question 3 relates to candidates' knowledge and confidence in their understanding of data representation (good at most Centres) and statistical tests (excellent at a number of Centres). As is typical of this type of examination, candidates performed well at particular questions, thereby leading to fewer very good and very poor marks.

Detailed Comments on Individual Questions

Question 1 (a)

Most achieved at least the middle of Level 2 and many entered Level 3 and gained full marks.

Indicative content: The understanding of locational choice is being examined. Appropriate points included accessibility, freedom from risk and suitability for data collection. Examples of accessibility and freedom from risk include: a river is easy to reach by a gently sloping footpath from a bridge over the river, therefore it did not take a long time to carry equipment to river; there was parking space for the minibus off the road; there were no problems with rights of way to the

sand dunes; there were no difficult walls to climb over or obstructions such as rock falls or cliffs or boggy areas. Suitability for data collection includes: proximity, e.g. town was near to the field study centre where the group was staying; size, e.g. the area was large enough to obtain a large enough sample of building types in order to determine the CBD boundary, but not too big to necessitate many transects in order to determine the boundary; site characteristics, e.g. the influence of man was present and desirable to show his impact *or* there was minimal influence of man (plantations, urbanisation, water extraction, sand dunes) and therefore it was possible to consider natural impacts (or other physical features); the site represented well the model being studied; variation, e.g. the river showed a good number of changes in channel characteristics over a short distance, therefore it was possible to collect data in one day; it was possible to select a variety of sites for pedestrian flows in the CBD that would show variation and enable definition of CBD.

Qualities of A grade candidates: The choice of location is described and explained in detail. There is likely to be reference to two or more distinct factors. The answer is logically ordered. There is reference to the candidate's actual study which goes beyond an initial reference.

Other Comments:

This was a pleasing outcome, as there has been a concern that when investigations are based on group work (led by teachers and Field Studies Centres), the candidates are not aware of the reasons for choosing a study location. Higher level answers included specific detail of the place chosen and a variety of reasons for its choice. Intermediate responses were imbalanced between the description and explanation, or they were not linked together very coherently. Some candidates spoke in more abstract terms of what made a good location – this left very little time to use specific locational details and answers became very disjointed. Some weaker candidates deviated from the question by describing how to collect/measure the data at the study location; few resorted to weak justifications such as *"… because my teacher couldn't think of anywhere else"* or *"the Field Studies Centre chose the location"*.

Most candidates made very good use of their own investigation throughout the answer – a marked improvement from previous years. Candidates producing the most logical, detailed and clear answers had conducted investigations based on physical geography, especially a psammosere succession.

Question 1 (b)

Most were Level 2, whilst there were similar (fewer) numbers in Levels 1 and 3. The overall level of attainment was less than for (a).

Indicative content: The understanding of locational choice is being examined. Appropriate points included accessibility, freedom from risk and suitability for data collection. Examples of poor access and high risk include: the sand dunes were not easy to reach as they were accessed by a steep, long footpath from road, therefore it took a long time to carry equipment there; there was no off road parking space for the minibus; rights of way along to the river had not been checked nor was the state of the river bank where walls were difficult to climb over and there were obstructions such as rock falls or cliffs or boggy areas. Suitability for data collection includes: proximity, e.g. the town was long way from the field study centre where the group was staying which meant that all the data had to be collected on one visit – and it was not possible to make return visits; size, e.g. the area was not large enough to obtain a large enough sample of building types in order to determine the CBD boundary; the town too big to obtain sufficient transects in order to determine the boundary; the river was too big to obtain a representative sample; characteristics, e.g. the influence of man was present but it was not desirable to show his impact (sand dunes, rivers); there was minimal influence of man and therefore it was not

possible to consider effects on the river (or other physical features); it was difficult to navigate around a complex layout of urban streets, leading to a poor dataset; variation, e.g. the river channel characteristics changed only over a long distance, therefore it was not possible to collect data in one day; safety, e.g. it was unsafe to work in some parts of the CBD, therefore they had to be left out.

Qualities of A grade candidates: Two appropriate limitations are identified. Both limitations are explained in detail, referring to the limitations of the location itself not the sampling methodology chosen by the candidate. The answer is logically ordered.

Other Comments:

As with (a), the outcome suggested that candidates are aware of limitations of their study sites, even if the individual candidates are not responsible for the choice. Correct interpretation of the question was important: strong candidates discussed limitations in terms of problems regarding the site itself – this could be expressed as accessibility issues (the time taken to reach the site making it difficult to collect a representative sample or to return for additional data collection, the size of the site being too large to sample effectively, practical on site access) and "defects" at the site which meant it would not represent a model being tested or enable the desired data to be collected.

Some candidates managed to tie in problems of the weather and location, particularly in coastal or highland areas. Those who wrote in terms of poor weather conditions on the day, not specific to location, produced weak answers.

Weak candidates erroneously discussed limitations that were created by themselves, such as poor sampling design and not allowing enough time to collect the data, or even problems with equipment and other resources used. Quite often one limitation was valid whilst the other was not.

As with Question 1 (a), many candidates made very good use of their own investigation throughout the answer.

Question 2 (a)

Most were Level 2, some stayed in Level 1 but few reached Level 3.

Indicative content: The question assessed the ability to suggest an appropriate sampling strategy for a specified location and variables. The strategy includes the following considerations the approach, e.g. a questionnaire or observation (vehicle, pedestrian counts); the type of sampling used, e.g. random, systematic, stratified, pragmatic or a combination; a realistic sample size – there are a lot of potential respondents at the retail park; stratifying respondents by age and gender; when to sample, e.g. time of day, day of week; the sampling locations – there is a large variety of outlets at the retail park to take into account; human resources – whether to gather data in groups or individually. Appropriate approaches to the question are to have no direct reference to the three variables, but the response makes sense for all three; an appropriate strategy is suggested for the variables individually or in combination.

Qualities of A grade candidates: An appropriate sampling strategy is described and justified in detail. The response is clearly appropriate for determining home location, retail outlets visited and mode of travel – whether they are all sampled by one method or by two or three methods. No direct reference to the variables is needed provided the strategy is appropriate. The answer is logically ordered.

Other Comments

Two approaches were used: firstly, full marks could be achieved by offering a single strategy that was appropriate for all three types of data; stronger candidates usually took this route as it meant that the data for the three data types could be analysed together [this did not have to be stated, but was an implicit outcome of this approach]; there was no requirement to refer individually to the three types of data, provided the response was appropriate. Secondly, full marks could also be achieved by discussing a separate strategy for each data type: however, very often this led to three separate sets of data that could not be meaningfully analysed together. Strong candidates considered practical issues regarding available human resources, time of day and locations in the retail park as well as the sampling technique itself.

Many candidates did not consider the sample size or chose an inappropriate one (too large or too small). Otherwise able candidates often confused systematic and stratified sampling. Many cited random as an option, but very few managed to describe or justify this technique particularly well. Many candidates continue to talk about 'accurate' methods instead of referring to a representative sample. Some candidates correctly pointed out that the only meaningful sample had to be collected when the respondent was ready to leave the retail park – unfortunately the solution was often to sample from the car park, thereby forgetting those who had travelled by public transport.

Some candidates appeared to have used the AS textbook and learnt the definitions of sampling by rote – which was not appropriate to the question asked as the responses lacked context.

Weak candidates often only looked at a strategy for one or two of the data types required, or produced inappropriate strategies (in particular, car travel was often the only mode of transport considered), or there was little or no justification, or they deviated into discussing the content of the questionnaire or even how the data might be represented graphically. Others suggested strategies for collecting data sets not specified in the question or suggested collecting data from the surrounding housing areas (possibly they did not understand what a Retail Park is), which did not address the question.

Nearly all candidates correctly specified the use of questionnaires to collect data – additional methods relied on observation of people and cars, which would lead to incomplete data sets.

Overall, appropriate justification was a lot weaker than the description of the strategy used.

Question 2 (b)

Most entered Level 2: the overall level of attainment was less than for (a).

Indicative content: The question assessed the recognition and understanding of data collection problems, for which two approaches – or a combination of them – are appropriate. Firstly, problems can be discussed in terms of issues if comparable data is required from both the small town and the retail park, e.g. it is not possible to sample at both locations at the same time of day/day of week due to lack of human resource, therefore compromising the comparison; it is not possible to obtain a similar sample size at both locations, due to the varying number of potential respondents or the lack of human resource; sampling may be affected by different weather conditions (not actually dependent on size of location). Secondly, problems of collecting just at the small town include: it is not possible sample at the diverse locations at the same time of day/day of week/more than once due to a lack of human resource, therefore the sample is not representative of the population; sampling may be affected by the weather conditions; people are unwilling to answer or are untruthful when answering the questionnaire, leading to a poor dataset.

Qualities of A grade candidates: Two appropriate problems are identified. Both problems are explained in detail, either referring to the problems of comparing the two retail locations (e.g. comparable samples, simultaneous sampling, different sampling conditions) and/or collecting data only at the small town (generic sampling issues). Fig. 2 is referred to. The answer is logically ordered.

Other Comments:

Two approaches were acceptable for this question. Firstly, many candidates considered the problem of collecting data from two very different locations; secondly, some candidates considered the generic data collection problems at the small town. Some candidates used a combination of both approaches.

Strong candidates realised that the question related to data collection (not the results) and recognised that the sampling strategy may need to be altered in response to the different sizes and layouts of the two locations; others considered the difficulty of obtaining a large enough sample. The best answers also contained specific information taken from the photographic resource.

A number of candidates suggested that since data for the whole population could be collected [questionable] it was not possible to take a sample – this demonstrates a lack of understanding regarding sampling: data for the whole population is a 100% sample, which is perfectly acceptable [ideal in fact].

Weak responses also confused problems relating to collecting data with errors caused by poor sampling techniques with a subsequent impact on the data collected, e.g. saying that *"there would only be old or young people in the town"* was not a site problem as it could be overcome by sampling at different times of day and day of the week. Furthermore, it does not matter if only old or young people use the town – if they represent the use of that place, they are representative.

In addition, many candidates erroneously thought that the lack of variety at the town centre (as most people in the town lived in the town) and the differing types of people, distances travelled, shops and modes of transport at the two locations are problems – they did not recognise that two different populations are [probably] using the two locations and this is not a problem for data collection. It was also very common to say that it was not possible to collect data on the mode of transport as people in the town had walked rather than taken a car.

As with Question 1 (b) many candidates only provided one valid problem.

Question 3 (a)

Many entered Level 3 and very few stayed in Level 1.

Indicative content: the most appropriate solution is a scatter graph, being described by its title, labelled axes (distance on x axis), labelled points, anomalies and line of best fit where appropriate; it is justified by being easy to interpret, visually attractive; able to show strength and direction of correlation between the 2 variables, can add a line of best fit, show anomalies and be used to predict erosion with distance along the footpath. A line graph is described by its title, labelled axes (distance on x axis), labelled points where appropriate; its justification is that it is easy to interpret, is visually attractive and shows the relationship between the 2 variables. Other acceptable responses include: a bar chart, histogram, kite chart, plan representation showing the changing width of the path, proportional circles (not pie charts) and located graphs for any appropriate technique.

Qualities of A grade candidates: An appropriate method of showing the relationship between the width of footpath erosion and distance from the car park is described (which includes the diagram) and justified in detail. Justification is likely to refer to a line of best fit, anomalies, trends, predictions. The answer is logically ordered.

Other Comments:

As in many previous sessions this question required the candidate to select and justify a suitable method of presenting a set of data. Nearly all candidates suggested the most appropriate choice of a scattergraph. Justification ranged from the simplistic (easy to carry out and interpret) to the advanced (able to add best fit line, predict travel times, identify anomalies). Correct designation of the independent and dependent variables was a marked improvement on previous sessions. Fewer candidates selected a line or bar graph, but these were generally executed and justified well.

The diagrams were often very well executed with labels and titles: often they constituted the only descriptive element in the answer (not an impediment to full marks). Compared to similar questions in previous papers far fewer candidates interpreted "sketch" as meaning very simple or untidy.

A few chose proportional circles and flow lines applied to maps and others opted for kite diagrams – these were usually only well justified for their visual attractiveness. Few candidates chose an inappropriate method (usually this was a sketch map showing sampling sites linked to a description of how to collect footpath erosion data – a further misinterpretation of the question).

Question 3 (b)

Most entered Level 2. The overall level of attainment was less than for (a).

Indicative content: Spearman's Rank Correlation Coefficient is the most appropriate response; Pearson's and Chi Squared are also appropriate. Two approaches – or combinations of them – are appropriate. Firstly, the benefits of the test itself: it is easy to apply and interpret; it is possible to determine the strength and direction of a relationship; a hypothesis can be test at a selected level of confidence; it is more precise than a graph; it is possible to use small to large datasets. Secondly, the appropriateness of the dataset for use in the test can be discussed, e.g. data is paired, the dataset is sufficiently large and the dataset can be converted to ordinal data.

Mann-Whitney is not acceptable.

There is no requirement to refer to the dataset in Fig. 3, but where used appropriately credit is given.

Qualities of A grade candidates: An appropriate statistical test to examine the between the width of footpath erosion and distance from the car park is identified (Spearman or Chi Squared). The benefits of the test are discussed in detail either in terms of the test itself, e.g. its use to determine the strength and direction of the relationship, to ascertain the confidence limits of the relationship; and/or the appropriateness of the data for the test, e.g. paired data available, sample size suitable. Fig. 3 may be referred to. The answer is logically ordered.

Other Comments:

Again, as in many previous sessions Question 3 (b) required the candidate to be aware of a suitable test of association. However, unlike previous papers there was no requirement to describe how to carry out the test, which is largely a rote learning exercise: instead, the question

asked the candidate to suggest the benefits of the selected test. Unfortunately, many Candidates did not read the question and assumed that it wanted the step-by-step description.

However, most candidates demonstrated an understanding of the benefits of the test – albeit often indirectly – when discussing the strength and direction of the outcome and the use and interpretation of confidence levels. Confidence levels were generally better understood than in previous sessions. Other commonly described benefits included ease of calculation and the certainty of the response. A few candidates adopted a different appropriate approach by discussing the appropriateness of the datasets for the chosen test, referring to the size of the dataset, the ability to convert it to ordinal data and the presence of matched pairs. There was no requirement to refer to the dataset, but it could be used to contribute to demonstrating an understanding of the question. There was less differentiation between Centres on this question than in previous sessions: some clearly benefited from not having to describe how to carry out the test.

Fewer candidates incorrectly chose Mann-Whitney than in previous sessions.

Geography AS Level 2682-02

General Comments

Overall Standard: The majority of candidates entered Level 3, with very few remaining in Level 1 or 2. Few candidates did not represent all five stages of a Report – although in some cases the headings varied from the normal format or there were none at all. Candidates are demonstrating substantial development compared to GCSE, particularly in the analysis and evaluation of outcomes. Most candidates from most Centres presented Reports with a clear and logical structure. The quality of written English was generally high. As is expected for AS Level, nearly all Reports were guided by the Centre or a field studies centre with group collection of data. There were considerable differences in the approach adopted by Centres, some of which were more successful than others. Whilst there is evidence of good practice at many Centres in terms of organising data collection and teaching methods, the necessarily heavily teacher directed approach offers less scope – but should not preclude – independent initiatives by students. However, an important role of this AS Report is to provide the basis for independent research at A2.

Content: The essence of a good report is relevance and quality not quantity. The data collected and analysis should relate to the question that has been identified at the beginning of the Report. This includes reference to any models and theories that have been presented. The aim of the Report should be to examine no more than two hypotheses, so that they can be discussed in depth, rather than a superficial description of numerous variables. Overall, the stated hypotheses were relevant and reasonably feasible for AS Candidates to achieve. When students were involved in a large group data collection exercise for a large number of variables, it was tempting to write too much – particularly irrelevant discussion of variables that were not relevant to individual candidate hypotheses. Those who collected data for only a limited number of variables seemed to fare much better. Generally, they were also organised and presented well.

There was a balance between physical and human investigation topics, encompassing a variety of subjects. Nearly all Reports were field studies centre or Centre led: differentiation was achieved by assessing the candidate's skill in manipulating the data that is collected. Candidates at some Centres produce far too many figures/graphs/photographs. Others included lengthy Annexes (up to 20 pages), often with material downloaded from the internet.

Supporting figures: As with the textual content, a few well chosen, appropriate figures can gain as much credit as many pages of repetitive poorly conceived and irrelevant figures. Thus, it is important for the reader to be able to compare like for like variables on the same page – with the same scales on axes for graphs, e.g. for a river study the cross sections should all be on the same page; for a study of change in urban characteristics, pie charts or bar charts are best located on a map to demonstrate spatial variation. There is rarely any justification for presenting the same data in several different ways, as this distracts the reader and does not assist with comparison between data sets.

Length of Report: Many candidates do not achieve their potential: this is often because they struggle to come to terms with the need to be concise. There were numerous rubric infringements. Those candidates that exceed the word limit are penalised so that they will not enter Level 4, as stated in the Specification. A substantial number of candidates – particularly at certain Centres – vastly underestimated the word count. This was in many cases due to erroneously excluding continuous text in tables and/or annotations from the word count.

Comments on Administration and Presentation

1) Rubric Error: Length of Report

Many of the better Candidates failed to come to terms with the word limit: the stated length of Reports was often substantially above 1000 words, and there were many more cases where the stated word count bore no resemblance to the actual word count. This was due to miscounting or the use of continuous text in tables; annotations with continuous text content; or scanned diagrams with text that is an integral part of the Report that had not been included in the word count. Over length Reports cannot enter Level 4 (13-15 marks). A related issue is that some Centres did not encourage their Candidates to conduct a word count and thus arbitrarily wrote 1000 words in the appropriate space or did not fill it in at all. **In the interest of fairness for all candidates the word count should be adhered to and an accurate word count supplied.** It should also be noted that concise writing is an important skill.

2) Format

(a) Most Candidates used the 5 stages format suggested in the Specification: Identifying a Question; Development of a Strategy; Collection of Data; Analysis, Interpretation and Evaluation; and Presentation of a Summary. Some Candidates used alternative headings which were recognisable as the 5 stages, as were those using a full essay style approach without headings. For the latter, the structure of the Report was often more difficult to understand.

(b) Each Centre is required to provide one Authentication Sheet (CCS160) signed and dated by all relevant members of staff.

(c) Each candidate is required to provide a Coursework Cover Sheet (CCS202) signed and dated by the candidate and a member of staff. A true word count – not an estimate – must be provided. The current CCS202 can be downloaded from the OCR Website.

3) Presentation

(a) The preferred method of presenting the Report is for it to be ***held together with a treasury tag***. There is no need for folders, wallets, clip files, clips, staples or plastic envelopes which all cause administrative problems and often make the report less easy to read. Conversely, loose sheets are also hard to manage – as are those with A3 sheets folded back and captured by the treasury tag. The inclusion of numerous field data collection sheets is detrimental to the Report – a summary of the outcomes should be neatly reproduced in the Report itself together with a template for data collection. Similarly, lengthy Annexes, often containing data downloaded from the internet, or handed out by Field Studies Centres as background information, are not required: if they contain material that should be read by the examiner, it should be given in the five stages and be counted within the word limit: the examiner is not to be required to read through many pages of Annexes to find the reference.

(b) There is generally a good ***standard*** of presentation within the Reports such as:

- Easy to read text which has been proof read, e.g. it is not difficult to give the correct name for the Mann-Whitney test (not *Whiney-Mann* or *Mann Witney*); "*as the river goes downstream more tributes join the river*." Handwritten reports can score just as highly as typed ones that have been badly proof read!

- The sheets are in the ***order*** in which they should be read.
- ***Page numbering*** is used.
- Figures, photographs, graphs and tables are ***cross-referenced*** at the appropriate place in the text.

(c) The purpose of ***maps, figures, tables, photographs and graphs*** is to:

- Provide evidence of the data collected.
- Specifically relate to the question and hypotheses chosen for investigation.
- They should be neatly presented (appropriate shading graded to match "high" to "low", using rulers) and given appropriate titles and labels.
- Show an awareness of appropriate methods of representing data. For example:
  - A large scale map extract – with the scale and key given – to show the location of the investigation. This map or a larger scale one will show the location of sampling sites. A map of the UK is usually meaningless in the context of these investigations. The map should be referred to in the text. Overall, the quality of maps – a cornerstone of good geographical reporting – was disappointing. The absence of maps in numerous Reports was noticeable. Conversely, four location maps at differing scales (often without an identified scale) indicate limited understanding of the purpose of maps.
  - Appropriately annotated photographs.
  - There is not more than one method of presenting a piece of information, e.g. bar chart and pie chart should not both be used to present the same data.
  - The same type of graph is used to present the same variables at two different sites.
  - Graphs of variables that need like for like comparison are placed on the same page with the same scales on both axes, e.g. all the cross sections of a river study.
  - Axes are presented (the independent variable is on the x axis) and labelled correctly.
  - Line graphs should not purport to show a relationship where it cannot exist, e.g. if there are 8 randomly selected soil samples in each of two woodlands, sample 1 in wood A cannot be compared with sample 1 in wood B. However, if a systematic line transect is taken every 25 metres into each of these woods, there is a case for comparing positions along the transects.

Overall Qualities of Candidates

A grade: A complete well structured geographical investigation, with appropriate use of both primary and secondary data. The work is clearly expressed with correct use of geographical terminology and will be almost entirely free of errors in all sections. It should not exceed 1,000 words and may be less than 1000 words. 'A' grade candidates typically select two well defined

hypotheses, enabling depth of discussion to take place, rather than superficial analysis of many hypotheses. Alternatively, a single hypothesis is tested, e.g. *"there is increasing species diversity across a sand dune"* and one or two additional variables are collected to support the findings. These Candidates do not include irrelevant material and the sections are balanced, e.g. Identifying a Question and Data Collection are too long at the expense of Analysis, Interpretation and Evaluation and a scant Presentation of a Summary. There is a clear understanding of the functions of figures etc. to provide evidence of data collected, to relate to the hypotheses chosen for the investigation and to be neatly presented and appropriately labelled. There is an awareness of the appropriate methods of representing data.

E grade: A submission that is not a complete geographical investigation, with poor or no use of primary and/or secondary data. The work is very poorly expressed, contains errors and there is very little correct use of geographical terminology. Much of the work may not be correct. 'E' grade candidates typically select numerous poorly defined hypotheses, with little scope for depth of discussion. Irrelevant material and graphs are included and the sections are imbalanced, typically Identifying a Question and Data Collection are too long at the expense of Analysis, Interpretation and Evaluation (the explanation lacking depth and not necessarily relating specifically to the original question) and there is a scant Presentation of a Summary. There is a little understanding that the functions of figures etc. is to provide evidence of data collected, to relate to the hypotheses chosen for the investigation and to be neatly presented and appropriately labelled. There is some awareness of the appropriate methods of representing data. The weakest Reports tend to be unfocussed and lack attention to detail. They often have insufficient quality data, are untidily presented and/or use techniques which are poorly understood.

Comments on the Five Stages of the Report

The subject matter of the Reports was nearly always appropriate, since the candidates were able to take advice from their Centre. Physical topics such as psammomeres and river studies tend be both popular and executed successfully. Candidates are reminded that in a 1000 word Report ***there is no room for irrelevance or repetition***. A reasonable balance between the sections is necessary – too much space devoted to how to calculate Mann-Whitney leaves little room for evaluation. Reports must clearly relate to and refer to a specific study location.

Identifying a Question

Indicative content: Succinct contextual information (including a relevant labelled map), a clear question and correct supporting hypotheses or aims – there is no need for more than two hypotheses. The null hypothesis states that no relationship is expected between two variables, whilst the alternative hypothesis states that a relationship is expected, and indicates the direction/nature of this expected relationship.

Qualities of A grade candidates: Succinct contextual information (including a relevant labelled map), a clear question and correct supporting hypotheses or aims. The null hypothesis states that no relationship is expected between two variables, whilst the alternative hypothesis states that a relationship is expected, and indicates the direction/nature of this expected relationship. No more than three hypotheses are investigated – and two are perfectly adequate.

Other Comments: This section is generally well presented, although it varied considerably in length. Almost everyone provided a hypothesis or clear question that they intended to test. Some better candidates led into their question from theory, whilst others spent far too long on the theoretical aspects at the expense of later sections. Some theory, for instance on urban models or settlement hierarchies, appeared but was only vaguely referred in the analysis section.

A substantial number of Level 3 Candidates suffered from using too many variables leading to substantially over-length Reports or rather meaningless generalised Reports within the word limit. Theory is often reproduced from a book without comment regarding its relevance to the study being undertaken. Weaker candidates: Reports are highly imbalanced – they may have little (or no) contextual information or a lengthy description of the context. The map, if any, is inappropriate and poorly labelled. Hypotheses, if any, are not clearly related to the question or their purpose is not understood well; stated hypotheses do not correspond with the relationships considered in analysis – or even with the data collected. Alternatively numerous (e.g. 6 was not uncommon) hypotheses are proposed which cannot be analysed in depth and often leads to an imbalanced Report with a lengthy Collection of Data section and limited Analysis, Interpretation and Evaluation. There is no need for historical detail or to explain why the topic was chosen or to state that the candidate is interested in a topic and hopes to do well or to say why certain hypotheses were not used.

Development of a Strategy

Indicative content: The reason for selecting the investigation location is given. Background theory, such as a model, is presented and there may be justification for the expected outcomes in this section (alternatively it may be given in the Analysis, Interpretation and Evaluation stage). Risk assessment relevant to the site is desirable. Practical and theoretical factors inform the organisation of data collection materials. Not all these points are needed to gain full marks.

Qualities of A grade Candidates: The expected outcomes are justified in terms of theory, e.g. the discharge increases downstream due to increased inputs to rivers towards the estuary. The risk assessment specifically relates to the study site and is realistic. Preparation for sampling and data collection is discussed and justified in the light of practical and theoretical considerations, e.g. content of data collection forms; selecting appropriate equipment; identifying constraints on where data collection can take place.

Other Comments: Many candidates referred to risk assessment. However, overall this stage is often weak compared to the rest of the Report, e.g. the use of a Route of Enquiry is weak. Many candidates comment only vaguely, or not at all, on their sampling strategies, or how their strategy for data collection was tailored to the available resources (e.g. manpower, time) or sampling strategy is not understood. Weaker candidates overlap this section with the next stage or even place the contents in the wrong order. There is an excessive description of problems arising from risk assessment, but with no suitable measures to combat problems. There is no reference to geographical theories or how the data collection is to be organised. Words are often wasted with a discussion of rejected strategies. Statements such as "*I wanted to collect as much different data as possible*" fail to consider how this can be managed in a 1000 word Report.

Collection of Data

Indicative content: The sites/transects for measurement are selected and the type of sampling used (pragmatic, random, systematic, stratified) is defined. The sample size for each transect (if used) and each site thereon is given and is appropriate, e.g. a few variables collected at 10 sites gives more meaningful results than many variables at 4 sites. The data to be collected is relevant to the aims/hypotheses: when groups collect many variables, individual candidates should only refer to those relevant to their chosen hypotheses both in data collection and analysis. The method for collecting the data in the field is described. There is a summary of questionnaires and assessment forms used or examples can be attached.

Qualities of A grade candidates: Not too long is spent on methods of data collection apart from the discussion of sampling issues. This is a well balanced section: the sampling location is identified; the type of sampling is clearly understood and described. The data to be collected is relevant to the aims/hypotheses. There is a concise description of how data is collected in the field. The accuracy of data collected is considered. Data is represented in an appropriate form by the use of, e.g. tables, graphs, charts, maps, sketch maps.

Other Comments: It was noticeable that questionnaires were often undertaken with very few people being interviewed. This section tends to be long at the expense of the Analysis, Interpretation and Evaluation. Where Centres had sampled numerous variables irrelevant data was often described and presented in tables, but then not used. Conversely, most candidates had no problem collecting numerical data, but not all submitted it. Nevertheless, quick reference to graphs and or statistical analysis soon confirmed that the data did indeed exist. Field sketches where included, were generally poor. More appropriate annotation of graphs and photographs is evident, e.g. to identify anomalies. In addition, photos included were mostly relevant. Environmental quality testing was often present but not described: a copy of the actual survey form is useful – but does not always appear (conversely, inclusion of all the completed survey forms is not required).

Weaker candidates either write in great detail about how data is collected (up to half of the Report) or provide almost no description at all or give a confused description; they tend to omit the sample size and discuss more variables than is appropriate for the stated aim/hypotheses. The purpose of this stage may be misunderstood, only consisting of graphs, photographs etc.

Analysis, Interpretation and Evaluation

Indicative content: For each part of this stage it is clear which hypothesis or aim is being discussed. The outcomes are summarised and relationships, if any, are explored using secondary data and field evidence. All the data that has been collected is referred to. Statistical tests may be applied and the application of models to the data collected is referred to. Appropriate formulae are used and the units of measurement are given. The reasons for geographical theory not applying to the investigation are considered.

Qualities of A grade candidates: The text is clear, relevant and relates to all the data collected. There is a serious attempt to explain relationships and anomalies – possibly with the use of field notes and clearly referenced secondary evidence. The relationship between the outcomes of the hypotheses may be referred to. There is numerical evidence that data has been analysed using descriptive statistics and/or a statistical test: appropriate formulae are used; the calculations are correct (e.g. in Spearman's Rank Correlation the two variables are ranked in the same direction); and confidence levels are tested (where appropriate) and interpreted. There is a clear discussion of the extent to which geographical theory is found in reality at the site. Analysis may be supported by the use of annotations on the data collected and photographs. These candidates are also able to successfully compare secondary data, e.g. derived from the 2001 Census, with their own primary data.

Other Comments: The quality of this section is highly variable. This section often sets the better Candidates apart from the weaker ones, however, since many better candidates (offering high quality discussion of their results) were over length, the differences between good and weaker candidates is not always reflected in the final mark. The highlighting of anomalies has again improved, although weaker candidates tend to blame "anomalous data" for low Spearman's rank correlation coefficients. Analysis sections often have very little explanatory text to accompany data from graphs; this means that a cursory comment is made for each graph or the outcome of statistical testing and then all the points are drawn together in the Summary section at the end, making it difficult for the examiner to follow.

Most candidates use some method of statistical testing. Some regard statistical testing as a hurdle to be jumped rather than as a way of furthering their understanding of the outcomes. Too many candidates still use Spearman's with a very low number of cases and Mann-Whitney is not always completed. Too often candidates use a computer to do the calculations and do not understand the full significance of the result – or do not even attempt to analyse the results. Significance testing is often not used and the significance tables themselves are also not necessarily clearly understood, resulting in some clumsy statements.

Weaker candidates give a lengthy description of the outcomes, whilst relationships and anomalies are not noted or explained or simply ascribed to "inaccurate data collection". Interpretation consists of poorly expressed, generalised statements and there is no reference to geographical theory – particularly models noted earlier in the Report. The meaning of some variables is not understood, e.g. confusing altitude and gradient. Statistical tests are incomplete. Mann-Whitney (difference between data sets) is confused with Spearman (association between data sets). Mann-Whitney is used to determine whether two sets of data come from the same population – it does not decide whether the samples are "fair." Computational errors are common, e.g. the formula for Spearman omits "1-.." or the two variables are not ranked in the same direction. Candidates simply state that the study went well and outcomes were as predicted – even when they were not. Land use models are dealt with in a summary manner if at all. Those who used measures of central tendency were seldom able to demonstrate their relevance to the chosen hypotheses.

Presentation of a Summary

Indicative content: The Summary highlights the main outcomes of the investigation in relation to the aims, together with a short explanation of these outcomes and their limitations, leading to suggestions for improving a project.

Qualities of A grade candidates: The Summary does not repeat information verbatim from earlier stages. There is reference to hypothesis(es) and/or theory or theoretical models which had been explained in the earlier sections. It gives a clear summary of the outcomes and highlights limitations of the investigation. Viable suggestions are made for improving the project if it were to be repeated.

Other Comments: This is often the weakest part of the Report. Candidates bring in analysis and evaluation that has not been discussed in earlier stages. Evaluative statements often lacked depth, especially with regard to the way data was collected. Alternatively, the Summary consists of only two or three lines with little substance – often due to the constraints of the word count, the preceding sections being too long. Another weak approach is to restate what was expected rather than the actual findings. In general, any evaluation was poor, being rather vague, e.g. "*More samples could have been taken and at different times of the year or on different days*" and was often focused on how the study could be extended.

2683: Options in Physical and Human Geography

General Comments

This was the first time that this paper offered a choice of one out of two questions in each Option. It is unwise to read too much into the results of just one sitting, but perhaps some candidates were choosing a question on the basis of just one of the sub-parts. There was a significant number of scripts where one sub-part was answered confidently but the accompanying sub-part offered only very weak geographical knowledge and understanding. It should be made clear to candidates sitting future sessions that these are specialist options studied in detail over the course of several weeks. They are expected, therefore, be able to answer questions from any part of the content from their chosen options.

There were a few instances of rubric offences, that is answering sub-part (a) from one question in the Option and taking sub-part (b) from the other question. Candidates should be warned that this will not earn them the credit they might hope!

Of the 2 400 candidates who sat this session's paper there was a wide variety in the quality of response. Although all members of the examining team were pleased to read good numbers of encouraging scripts there did seem to be fewer scripts displaying substantial knowledge and authoritative understanding than have been read in the past. The exam highlighted a number of points, all of which have been noted before in previous reports.

- Scripts that contained convincing descriptions and explanations were sharply focussed on the question set, displaying an appreciation of what knowledge and understanding to apply to the particular context of the question.
- Moderate and weak scripts were characterised by a 'write all I can remember about the topic' approach.
- Some candidates are making effective use of diagrams and sketch maps to communicate knowledge and understanding. The complete absence of such visual communication in a large number of scripts results in complicated and often unclear descriptions in particular.
- Too many responses contain little or no references to examples and examiners struggle to find any 'place' to credit.
- Some candidates communicate with a clarity of language that is most impressive but others do not and are hindering their attempts to answer through a lack of precision of expression. Examiners continue to voice their concerns about the overall quality of spelling, punctuation and grammar. There are also too many scripts with no evidence of the planning of answers.

Comments on Individual Questions

Option 1: Coastal Environments

1) The requirement to use labelled diagrams to describe the depositional landforms, spits and barrier beaches, was nearly always understood, but not well executed. A clear distinction between simple and compound spits was not often forthcoming which was disappointing especially when many drew actual examples of spits that were compound. The more convincing responses included the scale of spits in terms of their length, breadth and height and described the materials to be found making up spits. Two key weaknesses emerged amongst answers; superficial knowledge of barrier beaches and a tendency to offer lengthy explanation.

In response to the second half of the question that focussed on swash- and drift-aligned beaches, candidates were mostly aware of the fundamental differences with most attention being paid to the role of the angle of wave approach. However, few were confident when discussing wave refraction in the context of swash alignment. The more successful responses came from candidates who had picked up the idea of 'interaction' as the question demanded.

2) Descriptions of concordant and discordant coastlines were extremely variable. Here was an example of a question chosen by many for its sub-part (b) with little regard for (a). Those that were secure in their knowledge and understanding of coastal plan form made effective use of the Dorset or South Wales coastline. Differential denudation was included by most to differing degrees of detail. It was encouraging to read high quality responses including both marine and sub-aerial processes and the role of relief. However, considerable numbers of candidates ascribed wave direction as a primary explanatory factor, whereas wave refraction was given too little attention.

   Sub-part (b) was perhaps the question, more than any other on the paper, which was steadfastly ignored by candidates as they determinedly gave pre-learned material. For many this was the sub-part that caught their eye and so they thought it gave them licence to write all they could remember about coastal management. Examiners were disappointed to read so many accounts of managed retreat.

   Credit could be given for schemes designed to minimise the effect of marine processes, such as sea walls and beach nourishment, as long as they were explicitly linked to weathering and mass movement of cliffs. The better answers consisted of thoughtful and detailed examinations of schemes where drainage, regrading or mechanical pinning of cliffs had been employed.

Fluvial Environments

3) While there was a fundamental appreciation of how rivers operate as open systems, the details were too often sketchy. Water movement was well known although for some candidates this became a description of drainage basin flows. The most common omission was sediment, as inputs, stores and processes or outputs.

   The accompanying sub-part concerning variations in channel cross-sections was well tackled by the majority with fewer responses focussing on valley cross-sections as has happened in past sessions.

4) This was the more popular question of the two in this option. Many candidates were confident dealing with both negative and positive movements in base level. The inclusion of relative change was often the mark of a high level response. It was also encouraging to read scripts referring to local changes in base level with examples based on fieldwork.

   Sub-part (b) was also tackled effectively by a good number of candidates although here there was the issue of candidates discussing channel rather than valley shape. Thus candidates focussed on changing meander cross-sections rather than landforms such as incised and entrenched meanders.

Glacial and Periglacial Environments

There seemed to be fewer Centres choosing to study glaciation in this session than previously has been the case.

5) Examiners were delighted to read some very authoritative descriptions of past variations in the extent of ice cover in the British Isles. Unfortunately such scripts were rare with the majority of candidates not able to go beyond saying that there had been multiple glaciations but the place details of the extent of advance and retreats were not known by these candidates. It was possible that a good many candidates chose this question on the basis of sub-part (b) as this was generally well answered. River diversion was the most common modification mentioned, such as Thames and Severn. It was disappointing that more scripts did not explore modifications such as ribbon lakes and knock lochan landscape.

6) This was the more popular of the two questions in this option. Sub-part (a) was rarely tackled with anything less than competence but sub-part (b) was another story. Glacier movement is well known to many with the distinction between warm and cold based glaciers effectively described. The two components of movement less well described were internal deformation and bed deformation. Sub-part (b) was rarely answered with any degree of authority. Few candidates understood the need to focus on slope modification with lengthy accounts of peri-glacial processes such as frost heave and solifluction given but not related to slopes.

Hot arid and semi-arid environments

7) The labelled diagrams of a wadi and inselberg were generally well done but pediments were less competently described. Some idea of scale was, however, rarely present.
In sub-part (b) the discriminating factor was the degree to which candidates focussed on weathering. It is disappointing at A2 level that so many candidates gave prominence to the roles of wind and rain, both factors of erosion rather than weathering. There were, however, a good number of candidates writing convincingly about mechanical and chemical weathering.

8) This was the more poplar of the two questions. Examiners were pleased to read many detailed and varied accounts of the adaptations animals have that help them survive in arid environments. However, sub-part (b) rarely matched the quality of (a). Candidates seemed unsure of the terms used in the question - biomass, biodiversity and productivity - despite these being explicitly stated in the Specification. Even basic characteristics such as the very low organic productivity were not well known. The key explanatory factor of water was not well handled in relation to the arid ecosystem.

Applied Climatology

Hardly any candidates chose to offer responses to these questions, 9 and 10, so comments that have some general application cannot be made.

Agriculture and Food

11) Descriptions of the ways in which governments influence agricultural systems in LEDCs were encouraging. Some candidates wrote with authority regarding economies such as China and the current situation in Zimbabwe came in for much forceful comment although with little direct and factual support. Frequent mention was made of the Green Revolution but its link with ‘governments’ tended to be more implicit. Very few candidates seemed aware of the political significance of this movement during the height of the Cold War. Details of ‘why’ and ‘how’ IRRI was founded and supported were sketchy. Likewise research into improved wheat yields in Mexico were not linked with the then government’s reluctance to embrace land reform.

Sub-part (b) was not as well answered. Some candidates merely repeated material from (a) but without convincingly addressing the issue of agricultural sustainability. With the context of this sub-part set wherever the candidate wished, material concerning EU and USA policies were appropriate. Fortunately only a few weaker scripts contained material best described as 'eco-babble' whereas the stronger answers contained detailed and sometimes local exemplification of how government policies can both advantage and disadvantage sustainability.

12) There was a tendency on the part of candidates tackling this question to be fairly simplistic in their assessments of the influence of water inputs. This was most clearly seen in the tenuous links sometimes made between water inputs, high to low, and agricultural systems. The highly seasonal nature of water inputs in some regions of the world, the monsoon areas for example, drew little comment. Mostly candidates were content to mention circumstances where there is a surplus of water and mention that drainage was required but then failed to make the link with agricultural systems. For example the relatively high precipitation totals in upland Britain lead to saturated soils, heavy leaching and the formation of podsols. Only poor quality grass, in nutritional terms, grows in such conditions and so extensive livestock farming, mainly sheep, is the dominant agricultural system.

In sub-part (b) most candidates offered some sound material concerning the strategies farmers employ to overcome hydrological problems. The focus tended to be on the negative side-effects with salinisation as a result of irrigation and various effects emanating from the draining of the Aral Sea prominent. The more convincing responses offered a balance of positive as well as negative answers. It is always disappointing when geography students at any level only consider problems. Drainage and irrigation have brought great benefits in various ways to large numbers of people.

Manufacturing Industry: Location, Change and Environmental Impact

13) It is true that this report has urged candidates to have a historical perspective on the patterns and processes studied but it is just as disappointing when they seem not to be aware of recent trends. This question focussed on the role of transport on the location of manufacturing industry and was one such instance where too many scripts ignored the recent. Thus there were many who were quite content only to describe locational triangles and in some cases extend knowledge beyond Weber to Hoover. For some, manufacturing seems to be dominated by the iron and steel industry. All these points are relevant but there is much more to this topic, especially given the advanced level of study expected. It was good to read, however, scripts that made effective use of examples such as the sugar industry, both beet and cane and the car industry.

Unfortunately, it was clear that a good number of candidates chose this question on the basis of sub-part (a) as their accompanying answer was weak. Too many seemed unaware of what were traditional urban locations; neither were they familiar with constrained location theory. While it was appropriate for candidates to mention movement of manufacturing to NICs and LEDCs, this trend needed to be linked to why industry has left traditional urban locations in MEDCs.

14) This was the less popular of the two questions in this option. Those that did tackle it tended to struggle to achieve the depth of knowledge required at this level. Many were aware of the nature of TNCs at one end of the scale but were much less comfortable with SMEs. Indeed, not a few candidates omitted smaller industrial enterprises altogether. The more convincing responses identified the locational flexibility of SMEs with some effective material given regarding local scale industrial estates.

Service Activities: Location, Change and Environmental Impact

Only a few Centres entered candidates in this Option so only a restricted range of comments of general application can be made.

15) Most candidates describing planning responses aiming to maintain the status and quality of retailing in CBDs did so with some encouraging detail. Examiners reported reading some effective locational detail although the role of planning was not always as explicit as it might have been.
Sub-part (b) was generally answered with authority as candidates clearly demonstrated their knowledge and understanding of factors such as threshold, range, hierarchy, bid-rent, relative accessibility and prestige. It was disappointing to read so few references to examples in this sub-part.

16) While the majority of candidates tackling this question focussed on the impact of edge-of-town superstores on rural retailing, a significant minority chose to focus on their impact on urban retailing and in particular on existing town centres. It was also a common mistake of some candidates to concentrate their descriptions on the nature of edge-of-town superstores, commenting on their locational requirements.
For the accompanying sub-part (b), candidates either knew much detail about a particular locality, usually incorporating key settlements, or they knew very little about the responses of government, local and national, and local communities.

Tourism and Recreation and their Environmental Impacts

17) There were many who answered this question concerning changes in transport technologies and their influence on patterns of domestic tourism. Unfortunately, many were unable to offer convincing responses. Once again, this report bemoans the weak knowledge many candidates have of the chronology of transport technology changes. Thus examiners read far too often of the introduction of air travel in the 1890s and of cars being important before World War 1.

In the context of this question were many of the clearest examples of candidates not reading the question. The words ‘patterns’ and ‘domestic’ were all too often ignored. Comments tended to be focussed on the growth of seaside resorts with only the more thoughtful able to describe the geographical spread of tourism, through time, in association with changes in transport technologies. The ignoring of ‘domestic’ was a common and serious error. Many candidates simply regurgitated their notes on changing transport with little or no regard as to the impact of air travel on domestic tourist patterns. The more discerning mentioned the decline of domestic resorts as a consequence of air travel to foreign regions in the latter twentieth century. A few made the point about of short breaks to urban centres linked with air travel within a country such as between England and Scotland, which despite devolution, still counts as domestic!

Sub-part (b) focussed on the links between changing social and economic conditions and the development of seaside resorts. Generally candidates offered good material on the social and economic changes although examiners would be pleased to read answers whose knowledge of the development of statutory holidays was detailed and accurate. Too often there were simply vague assertions about the increase in holidays through time. The difficulty candidates faced here was to relate the social and economic changes to seaside resort development. Thus many lengthy accounts of tourism in the Mediterranean for example, might have been appropriate had they been linked with social and economic change. It was disappointing that some candidates

saw this sub-part as their chance to write all they could remember about the Butler model.

18) The impact of tourism on physical environments in LEDCs was generally well answered with effective use made of exemplar material from locations such as Kenya, Gambia, Nepal, Galapagos Islands and Thailand. The clear majority of candidates focussed entirely on negative impacts such as erosion of footpaths, coral and deforestation. More thoughtful responses tended to be characterised by their inclusion of positive impacts such as can the consequence of eco-tourism.

Sub-part (b) drew some very encouraging responses. These were well planned, balanced in their approach and maturely articulated. It is good to read candidates writing more than simply 'tourism brings in money' as they considered the multiplier effect of increased earnings and tax revenues on the provision of health, education and utilities within LEDCs. Examiners were encouraged to read increasing numbers of scripts containing references to the empowering effect of tourism in some circumstances, particularly if it provides women with a degree of financial independence and security.

Overall this question was more successfully answered than its partner in this option.

2684 People & Environment

General Comments

Candidates produced a wide range of performance. The small group that achieved the top grade did so by directly answering the question, using detailed examples and case studies and making obvious synoptic links. Those more marginal candidates had two or more of these essential elements missing. There were too many in this group reflecting poor preparation by the individual candidates or a failure to keep tightly relevant to the question being answered.

The questions on this unit are open-ended and evaluative so requiring careful thought and planning. Plans also help examiners trace the logic of the candidates thinking. It was encouraging to see that many candidates do present brief plans and it was those answers that tended to have a tighter better focused structure.

The responses are marked by component and candidates' responses varied greatly between these components:

1) Knowledge of content – more successful candidates demonstrated detailed knowledge of case studies, relevant concepts and geographical terms. Some weaker candidates made no reference to any location apart from 'e.g. Africa' type exemplification. Candidates should appreciate that this is a geography examination so some concept of location or/and place is essential. Without this clear grounding in the real world candidates can not expect to do well.

2) Critical understanding of content – this was the more effective component for the majority of candidates who demonstrated a clear appreciation of cause-effect and an understanding of the connections between different aspects of the subject (including synoptic connections). Clearly the basic concepts are well taught and understood by candidates.

3) Application and evaluation – this is the crucial component as it requires the higher level analytical and discursive skills to apply the understanding and knowledge to answer the question set. It is the evaluation aspect and the inclusion of synoptic material that usually distinguishes the better candidate and this examination was no exception. The higher achieving candidates evaluated arguments, concepts and statements in detail with some encouraging insights. Weaker candidates tended to agree with any quote regardless of the scale, location or time period. Many candidates could still improve their responses by using a less descriptive approach in their answers.

4) Communication – this varied tremendously as in most years. This is an essay paper and so requires lengthy extended discursive writing. Weaker candidates found even the most basic forms of communication difficult. Spelling was of particular concern as many could not spell place names e.g. Loss Angelles or geographical terms so rendering answers ineffective. The misspelling of basic words like there (confused with their) and where (were) continues to be common. Weaker candidates also struggled with the concept of the paragraph. These are essential to keep the answer flowing in a structured way. A significant number of candidates struggled to produce coherent answers. For example:

   "Making there affects have the greatest affects."

   Maps and diagrams were often included, which had little relevance to the discussion, as an attempt to meet the criteria of 'in different formats'. At the other end of the scale stronger candidates wrote with a fluency and organization that they, and their schools, should be proud to have produced in examination conditions. Candidates should be reminded that a total of 16 marks is available on this unit specifically to reward effective

communication so it is important to present their work in a readable form with a clear introduction and conclusion and in a structured format – especially the correct use of paragraphs.

Candidates must appreciate that their answers should:

- relate directly to the question set. Some offered pre-learnt answers e.g. on the ways of reducing traffic congestion in urban areas for Q6 which had only passing relevance to the actual question;
- give examples. Stronger candidates quoted detailed knowledge of locations and some drew relevant maps. Weaker ones gave vague references; e.g. for Q6 examples of traffic congestion were exemplified by 'e.g. London';
- be clearly synoptic. Most of the questions had clear possibilities for synoptic links e.g. Q6 could have linked into material from 2681. The link should be seamless so the discussion flows.

Selection of questions

This continues to be of concern as so few candidates and Centres elect to cover the EU but there were more candidates than usual who selected rural management options. Nearly all candidates attempt the hazards option and in this examination nearly 80% of candidates did questions from this option, chiefly Q10. The urban management section was equally popular, especially Q6.

Comments on individual questions:

Option 1: Geographical Aspects of the European Union

1. Discuss the view that physical geography is the main cause of some regions, in the EU, being disadvantaged.

This was the most popular of the EU questions and was tackled in a broadly effective way by all candidates. Most placed it in the core-periphery context and compared disadvantaged regions such as Norbotten and Southern Italy with the core in terms of physical geography and economic development:

Norbotten is remote being in the arctic circle it has months of darkness, sub zero temperatures and is largely mountainous. This gives it overwhelming disadvantages compared to the warm fertile core regions.

Some did question the view and saw it as more of a product of remoteness rather than purely physical geography. It was a pity that no candidate chose to look at some regions that were prosperous despite their physical geography or depressed areas that had positive aspects of physical geography.

Some candidates did identify that physical geography advantages can change:

The coalfield areas of Yorkshire gave advantages to the region leading to prosperity in the nineteenth century but as these became exhausted so the physical advantage vanished and the region lost its prosperity.

A very effective way into the discussion would have been to look at what constitutes physical geography. That might have lead to a wider range of aspects.

2. 'Rapid economic growth brings more benefits than problems.' How far do you agree with this statement?

One candidate attempted this question and produced a competent answer although they concluded that growth brought more problems than benefits. The answer concentrated on the negatives of pollution, congestion, social inequalities etc. The subtlety of 'rapid' growth was missed as was the idea that benefits and problems may vary depending upon the viewpoint and could vary between economic, social and environmental.

3. To what extent has the Common Agricultural Policy had a greater impact on natural environments than on rural communities ?

One candidate attempted this question and produced an effective and detailed answer that suggested that the impact on preserving rural communities was greater than the impact on the natural environment. This was well linked to the development of the CAP showing how, with time, the impact on the environment, which was seen as initially significant, had lessened or become more positive.

Option 2: Managing Urban Environments

4. 'Urbanisation in LEDCs typically focuses on the main or capital city.' How far do you agree with this view?

Candidates persist in looking for a 'write all you know about shanty towns' question and the use of 'LEDCs' seems to trigger that reaction. This question was no exception. Too many focused on the causes of urbanization and the resulting problems rather than focus on the question of why rural-urban migrants tend to move to the largest city.

Those that did try to answer the question directly tended to rely on one explanation:

"LEDC governments have little money so can only afford to develop one city – usually the capital as that is where they are based."

Others went on to elaborate this theme by referring to the concentration of infrastructure in such areas:

"Due to limited funds what few services and infrastructure e.g. roads there are tend to be in the capital so making it even more attractive to rural-urban migrants."

Some did look at the concentration of Trans- National Corporations in such cities linking this to cheap labour and the resulting multiplier effect on the local economy. Exemplification was often limited and was typically: *e.g. Rio.*

Surprisingly, no candidate looked at the disadvantages of rural areas and other urban areas. Too many described the disadvantages of the main or capital city, especially the levels of pollution.

5. To what extent has the control of urban sprawl in MEDCs been successful?

Many candidates missed the focus of this question – an evaluation of how far controls of urban sprawl have been successful. Too many focused on simply describing the controls. A good range of controls was known by most candidates and nearly all the responses showed good understanding of the topic. Green belts were well understood as were their limitations in controlling sprawl:

"All too often urban development jumps the Greenbelt forming a ring of urban sprawl beyond it."

"Greenbelts are often not green as some land uses are allowed within them such as motorways, sewage farms, sports centres and in the case of Birmingham the NEC was built in the local greenbelt."

New Towns and Brownfield development were also seen as major attempts to control sprawl. Few were optimistic about their success.

"Such measures merely slow the rate of sprawl. They can't stop this process as people leave the crowded polluted cities for the urban fringe and the demand for affordable housing continues so fueling sprawl especially along commuter routes."

It was such evaluative statements that lifted candidates to the higher levels especially when supported by detailed examples and Synopticity – usually drawn from 2681.

A major point for candidates to note is that too many write with the assumption that the examiner knows they are referring to Britain:

"The destruction of farmland is a major problem as 80% of prime and unique farmland is under threat of being developed while 52,000 ha is already being lost each year."

But where was this ?

6. 'The growth of commuting is the main cause of traffic congestion in urban areas.' Discuss the validity of this statement.

This was a very popular question but candidates seemed to find keeping their answers relevant difficult. Too many focused on either the resulting pollution or on a range of solutions especially charging policies. Some seemed to get very confused over the nature of commuting:

"If you are commuting you are unlikely to take a car with you as it costs too much money and time."

Most candidates did explain the growth of commuting, linking it to urban expansion and increasing affluence. Few pointed out the increased number of cross city commutes following the decentralization of offices and industry. Candidates struggled to find other causes. Some suggested street plans:

"Many of the cities were laid out in pre-car days and are now unsuitable to the traffic so leading to congestion."

Some suggested traffic mix rather than commuting per se as the cause:

"In Mumbai it is the mix of traffic that causes congestion. Rickshaws, pedestrians, ox-carts, buses and the increasing number of cars travel at different speeds leading to massive traffic jams."

It was those candidates who looked outside the MEDCs that produced more convincing arguments against commuting being the main cause. Most saw it as the increase in traffic due to economic development and increasing affluence, supporting this assertion with some effective statistics in the growth of car ownership.

Option 3: Managing Rural Environments

7. " Recreation and tourism inevitably cause conflicts in the rural environment." To what extent do you agree with this statement?

Candidates broadly agreed with the statement citing numerous examples of conflicts between tourism, farming and wildlife habitats. Few saw that different aspects of recreation and tourism might conflict. Some did fit their answers into a cost-benefit framework and suggested the benefits offset the conflicts:

"As farming has declined the rural economy relies on tourism to boost incomes and employment. Without it many rural areas would become depopulated."

Some did over exaggerate the impact of recreation and tourism on the rural environment:

"The countryside is increasingly covered in paintball sites and farm parks."

Many saw this as a question about pros and cons of tourism rather than one about conflicts as such. Most of these answers accepted that problems caused were more than offset by the gains:

"Without the income and jobs from tourism many rural areas would be in terminal decline as people leave to find jobs in the city."

This wasn't the question and, by focusing on this type of cost-benefit discussion, the nature and direction of conflict was ignored. Few quoted examples where there were minimal conflicts or recognized that different elements of the rural environment might view the level of conflict differently. Some of the higher level responses recognized the role of planning in managing conflicts:

"Conflict can be reduced by careful management of the development of recreation and tourism. National Park authorities are good examples where careful planning of any development is done to reduce conflict and increase harmony in the rural environment."

8. Discuss the view that geographical location is the most important factor in explaining the pattern of changing rural populations in MEDCs.

The changing pattern of rural population was well understood but candidates tended to focus on the socio-economic pattern rather than age, sex or even numbers:

"Rural populations have seen a loss of the traditional rural farm workers and an influx of wealthy commuters and second home buyers."

Candidates then went on to struggle with the geographical location aspect. Some saw it as relating to the distance from the urban area from which people were moving out into rural areas:

"The biggest changes tend to be in rural areas next to or within easy commuter range of the city e.g. the Cotswolds for Oxford or even London."

There was opportunity here to invoke core-periphery model and concepts such as the multiplier effect. A few candidates saw this in a broader context seeing it as a function of the geography – inhospitable extreme areas losing population and pleasant more amenable areas gaining population.

"Lewis in the outer Hebrides has a harsh cold wet climate so the rural population is in decline unlike rural areas in the warmer more fertile South East of England."

It was only the highest level candidates who went on to evaluate whether geographical location was the main factor. Alternatives suggested included changing mobility/transport, decline in agriculture, urban sprawl, rising affluence etc. Exemplification varied greatly with some effective case studies based on Gloucestershire and the Cotswolds.

9. 'Sustainable forestry is the most effective way of managing rural ecosystems.' Discuss the validity of this view.

This was not a popular question. The most effective answer was one in which the candidate looked at a number of rural ecosystems – the broads, chalk downland, moorland as well as forest. The answer then pointed out that sustainable forestry would be best suited to forest areas but be inappropriate to the broads. Some perceptive discussion ensued over its potential for moorland and downland.

Weaker answers didn't really understand sustainable forestry and saw it as a question asking about the advantages and disadvantages of afforestation.

Option 4: Hazardous Environments

10. 'It is the subsequent effects of natural hazards rather than the initial event that cause the greatest impacts.' To what extent do you agree with this statement ?

This was by far the most popular question and was usually done in a competent way although some candidates did list a string of disasters with little context to the question. Candidates demonstrated knowledge of a wide range of natural hazards with both primary and secondary impacts discussed. Some were a little unclear over what was the initial event:

"On Boxing Day 2004 an earthquake hit Indonesia resulting in a tsunamis that drowned the surrounding low lying coasts killing over 300,000. The secondary impacts were the destruction of the local economy and the disease caused by the destruction of sanitation."

In reality the tsunami was subsequent to the earthquake – the initial event, but at least the candidate focused on the contrasting (in time and type) impacts. Most candidates decided that the subsequent effects had a greater impact than the initial:

"In the 1906 Californian earthquake no one died in San Francisco from the initial shock and destruction but 3000 died in the resulting fire, when gas mains broke, and from disease due to the lack of clean water."

No candidate sought to challenge what is meant by impacts (economic, social, environmental) or questioned how these could be assessed. Many did suggest it varied with the level of development so comparing MEDC and LEDC with the latter suffering more subsequent impacts due to lack of resources and poor planning. Some even related it to the

level of education, perception and frequency of event. Only a few higher level candidates pointed out that hazards themselves varied in the balance between primary and subsequent impacts:

"Volcanoes bring relatively few subsequent impacts and there is usually some warning and action can be taken to avoid them but earthquakes are sudden unpredictable and trigger further long term impacts such as fires and landslides."

Whilst not 100% accurate, at least this candidate recognized that hazards do vary. A contrast with Hurricanes might have been even more fruitful.

11. To what extent is it possible to successfully manage the hazards resulting from mass movements ?

This was not a popular question and those that selected it tended to list management strategies such as nets, drainage, slope grading etc. rarely well supported with examples. No candidate recognized that the hazards might vary with the nature of the mass movement e.g. flows v slides such that the management needed might be different. Most considered it was straightforward to manage mass movement not recognizing that it can happen in a wide variety of situations, often without warning. All too often candidates got side tracked onto overlong accounts of avalanche prevention:

"Skiers are banned from certain slopes and trees planted to slow any avalanche. The Swiss set off explosions to trigger avalanches and so prevent them becoming a hazard."

This typical comment rather ignores why these strategies reduce the hazard.

12. 'The impact of hurricanes and tropical storms is greater with distance from their area of origin.' Discuss the validity of this statement.

This was a disappointing set of responses. No candidate really identified with the life cycle of most such storms with them gaining strength as they move away from their tropical origins then fading as they move over land or cool. Instead, most looked at impact and linked it to the nature of the area (MEDC v LEDC) rather than the nature of the storm mechanism. This may reflect the undoubted candidate resistance to studying meteorology or a failure to read the question carefully. Most answers resembled:

"Tropical storms over Bangladesh bring devastation as it is low lying and poor whilst Hurricanes that reach the more developed and better prepared USA do not have such a serious impact."

Again the candidates should be encouraged to question the meaning and scope of the term 'impact' as this allows them to show it might vary with location, aspect (e.g. economic v environmental) scale of storm or community group.

Advanced GCE Geography A (3832, 7832))
January 2007 Assessment Series

Unit Threshold Marks

Unit		Maximum Mark	a	b	c	d	e	u
2680	Raw	100	65	58	51	44	37	0
	UMS	120	96	84	72	60	48	0
2681	Raw	75	50	45	40	36	32	0
	UMS	90	72	63	54	45	36	0
2682 01	Raw	60	41	38	35	32	29	0
2682 02	Raw	15	12	10	8	7	6	0
	UMS	90	72	63	54	45	36	0
2683	Raw	90	66	58	51	44	37	0
	UMS	90	72	63	54	45	36	0
2684	Raw	120	89	80	71	62	54	0
	UMS	120	96	84	72	60	48	0

Specification Aggregation Results

Overall threshold marks in UMS (i.e. after conversion of raw marks to uniform marks)

	Maximum Mark	A	B	C	D	E	U
3832	300	240	210	180	150	120	0
7832	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
3832	18.75	37.50	55.56	77.08	94.44	100	175
7832	15.22	54.35	84.78	97.83	100	0	51

46 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

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

(General Qualifications)
Telephone: 01223 553998
Facsimile: 01223 552627
Email: helpdesk@ocr.org.uk

www.ocr.org.uk

For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored

Oxford Cambridge and RSA Examinations
is a Company Limited by Guarantee
Registered in England
Registered Office; 1 Hills Road, Cambridge, CB1 2EU
Registered Company Number: 3484466
OCR is an exempt Charity

OCR (Oxford Cambridge and RSA Examinations)
Head office
Telephone: 01223 552552
Facsimile: 01223 552553