GCE

Geography Specification B

Mark Schemes for the Units

June 2006

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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:

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Advanced GCE Geography B (7833)

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MARK SCHEMES FOR THE UNITS

Mark Scheme 2687
June 2006

Section A

Answer **two** questions

1 **Atmospheric Systems and People**

(a) Study Fig. 1. Use evidence from the map together with your own knowledge to suggest why inter-regional water transfers are necessary in England and Wales. **[9]**

> The map provides evidence of areas with a sufficiency, surplus or lack of water and routes for transfer. Knowledge of Britain's weather and climate is expected, together with an understanding of water as a resource as stated in the syllabus.

Level 3 (8-9 marks)
A detailed explanation of reasons for areas' self-sufficiency or surplus compared with areas of high demand and lack of water resources, using the map well and demonstrating own knowledge.

Level 2 (5-7 marks)
The answer gives some development of why some areas have sufficient water or high demand in densely populated areas or a sketchy summary of both with little reference to the map.

Level 1 (1-4 marks)
A basic point about some areas having too much water but others not enough with no development, limited explanation and no reference to the map.

(b) Explain how moisture in the atmosphere is formed. **[9]**

> Under 'moisture in the atmosphere' candidates are expected to have studied humidity and dew point temperatures and changes in the state of water. The question is asking how atmospheric moisture is constantly replaced – i.e. the idea of a system with inputs (evaporation) and outputs (precipitation) would be a high level response. Others may look at cloud formation.

Level 3 (8-9 marks)
A full explanation of the role of temperature change in the formation of water vapour , its storage in the atmosphere and the role of cooling producing condensation, which shows clear understanding of the points above. Cause and effect are clear.

Level 2 (5-7 marks)
Some development of both evaporation **and** condensation with a mention of terms such as dew point, for example, or reference to convection currents causing rapid cooling higher in the atmosphere. Explanation is limited.

Level 1 (1-4 marks)
A simplistic explanation of evaporation **or** condensation or vague discussion of both.

(c) Compare and explain the differences between the climax vegetation of the British Isles with the climax vegetation of a contrasting climatic region of Europe. **[12]**

Candidates should have studied a contrasting climate and its associated climax vegetation in Europe, so this could range from Tundra to Mediterranean. It is expected that Broad leaf deciduous forest is the British climax but accept coniferous in Scotland etc. Differences could include species type, structure, adaptations e.g. leaf type, size, seasonal cycle, nutrient stores and flows etc.

Level 3 (10-12 marks)
A good comparison using named species appropriate for the region chosen with a range of differences explained. Explanation is detailed of why those differences reflect adaption to climate.

Level 2 (6-9 marks)
A moderate comparison, or good description of one appropriate climax vegetation and brief description of the contrasting example and at least two differences noted. Explanation may be limited.

Level 1 (1-5 marks)
A vague description of an appropriate type of vegetation for a region such as the Mediterranean, OR a description of the British climax vegetation. There will be little, if any, attempt at explanation. Max L1 if the latter.

2 **Landform Systems and People**

(a) Study Fig.2. Describe the ways water reaches the river channel in the area shown.
[9]

The diagram gives ample clues to the type of environment which could be used in the highest level answers to suggest pathways through limestone and the draining of peat moorland, but a straightforward theoretical account of flows through a drainage basin (as in the water cycle) will suffice at lower levels.

Level 3 (8-9 marks)
A thorough account of the various flows shown using appropriate terminology and relating it to the area shown.

Level 2 (5-7 marks)
A moderate account that names and describes at least two 'ways', for example run off and one other such as groundwater flow. Limited reference to the area.

Level 1 (1-4 marks)
A simple account that describes water 'draining off the land into the channel' with no reference to the area or contains errors e.g. limestone is impermeable.

(b)   Referring to Fig.2 suggest why this upper catchment area presents management
            challenges.   **[9]**

Several points on the diagram suggest that conflicts could arise from different user groups, and
higher level answers may also suggest the implications for management of this area having
effects downstream. The importance of, and challenges posed by, the conservation of the
natural environment and diverse habitats, the needs of agriculture, forestry, residents and
tourists could all be included. Candidates may focus on water management or look at more
general aspects.

Level 3 (8-9 marks)
A good answer that recognises several different aspects of the area shown which provide
challenges for management. Explanation of why these are challenges should be detailed. At
this level the significance of upper catchment should be made clear e.g. implications for lower
areas etc.

Level 2 (5-7 marks)
A moderate answer that covers at least two general aspects of upper catchment management.
Relevance to the area shown may be limited e.g. 'the floodplain could flood damaging the hay
crop'. Challenges may be explained in a limited or basic way e.g. historical sites object to
changes.

Level 1 (1-4 marks)
A basic answer that quotes one or two simple ideas vaguely relevant to the area or very
generalised comments such as building of dams to store water impacts on river flow.

(c)   For a **named** river you have studied outside Europe, explain how human activity has
            affected the drainage basin.   **[12]**

The principles of basin hydrology of a selected major river basin outside Europe is required.
The Colorado. Mississippi and Nile have been favoured by centres. While flood plains are
often used for human activities (settlement, transport, industry, forestry, farming etc) their
purpose in nature is often neglected. Many will see this as the flood protection question but it
is more than this. Higher level answers may link directly to hydrograph shape etc. Drainage
(and natural wetlands) and deposition with lateral erosion and the formation of terraces, bluffs,
levees and meanders could be considered.

Level 3 (10-12 marks)
A good explanation of how a range of human activities, appropriately located, impact directly
on aspects of the hydrology of the selected basin. Explanation is detailed such that cause and
effect are clear. Answers clearly focus on river basins rather than just rivers.

Level 2 (6-9 marks)
A moderate explanation of the role of at least two human activities and/or two impacts on the
hydrology of the basin. Many will merely focus on the river channel e.g. pollution, flood
prevention etc. Some attempt at explaining cause and effect.

Level 1 (1-5 marks)
A limited or vague explanation of an effect with some reference to human activity but little
development. Max. L1 if no name or within Europe.

3   Coastal Systems and People

(a)   Draw an outline sketch of Fig.3. Label the features shown and the processes that help create this coastline.   **[9]**

> Features range from the steeply angled cliffs (active and inactive), headlands and shallow bays, offshore stacks/stumps, beach and cusps. Processes could include: aspects of marine erosion, deposition, mass movement, weathering and human activity. Do not credit text/diagrams not linked to sketch.

Level 3 (8-9 marks)
A clearly and appropriately labelled sketch with almost all the appropriate features and at least 3 processes including one non-marine.

Level 2 (5-7 marks)
At least three features accurately labelled and indication of at least two processes. Sketch should at least resemble, however limited, the area shown.

Level 1 (1-4 marks)
Features are vague or basic and processes inaccurate or limited e.g. erosion. Sketches may be poor or not even be a sketch e.g. a map. A sound sketch with no labels = max 2.

(b)   Explain the factors that may be responsible for the shape of the coastline in Fig.3.
    [9]

> While the **rock types** need not be identified (this is the next bay to lulworth cove !) its relative resistance to erosion is apparent from the height and angle of the cliffs. There is no obvious change in rock type visible in the foreground (but there is in the background) and some protection is offered by the stacks. So other physical factors can be considered such as the **processes** of mass movement, wave action and sub aerial processes of weathering and erosion. Human factors may be considered. 'Local winds and weather, coastal configuration and water movements' are the terms used in the syllabus. Higher level responses might consider elements related to **time** such as rising sea levels.
>
> To some extent this is speculative and sensible explanations should be credited even if not accurate for this location. Some may illustrate this by annotated diagrams but classic stack formation diagram Max level 1 if unsupported.

Level 3 (8-9 marks)
A balanced answer that recognises the combination of factors (at least processes and structure) that act on landforms and offers an effective explanation of cause and effect. Clear relevance to this coastline.

Level 2 (5-7 marks)
A moderate attempt to explain the processes and/or assess the extent of the influence of the geology. Explanation is limited and linkage to the coastline shown is vague or inaccurate.

Level 1 (1-4 marks)
Either a brief description of processes or an attempt to describe the geology. Explanation is limited or missing. No attempt to link it to the coastline shown. Much is generalised.

(c) With reference to **either** a dune system **or** coastal wetland you have studied, explain how distinctive ecosystems develop in coastal environments. **[12]**

Studies at the local scale' of each system is required. The stress is on how the ecosystem develops i.e. from bare surface to sub-climax e.g. psammosere transect in land would answer the requirements of the question provided explanation for these changes/development is offered.

Level 3 (10-12 marks)
A detailed explanation of the development of the ecosystem going beyond a mere listing of plant species to include reference to other aspects e.g. changes in wildlife, stores, adaptations etc. Cause and effect will be clear and there will be good use of the located example. Some attempt is expected at why it is 'distinctive'.

Level 2 (6-9 marks)
A partial explanation of the named example. The typical transect up a beach approach with limited explanation of how and why this develops can be expected. Cause and effect may be limited.

Level 1 (1-5 marks)
A basic or vague description of what the ecosystem is like with little focus on its development over time or space. Max L1 if not named.

Section B

Answer **one** question.

Either

4 Discuss the impact that changes in land use may have on landforms that you have studied. **[30]**

Modifications of drainage basins (by changes in vegetation, cultivation, afforestation, urbanisation etc) are specified; sand and gravel extraction, port construction; reservoir construction could all be cited as examples of land use change. The effects on landforms will depend on the examples of changes chosen but higher level answers will examine a variety of impacts e.g. destruction, modification, creation, pollution etc. There should be a clear idea of landforms – i.e. it isn't 'rivers' but it could be a river landform such as a braid.

Level 5 (27-30 marks)
A well-structured, logical and balanced essay with a clear understanding of the relevant changes demonstrated from different areas of study. Some appreciation that changes are often dynamic or that landforms are mini-systems could be expected at this level. Uses appropriate terminology, accurate and detailed knowledge and has almost faultless use of English.

Level 4 (21-26 marks)
A clear essay that shows a good understanding of cause-effect and explores several changes, with a balance between them, and has specific place/landform knowledge. Explanation is effective and clear on cause-effect relationships. The answer is well organised and attempts to evaluate the impact. Overall structure will show some ordering but may have some flaws. There is some attempt to summarise or reach a conclusion. English expression may mainly be good but show weaknesses in places or some lack of clarity.

Level 3 (15-20 marks)
Reasonable use of appropriate terminology and an approach to a balanced essay beginning to explore more than one change. Some understanding of cause-effect. A little place and landform specific material will be given, but detail may be poor. Information used shows only a little ordering, so the overall structure will have some weakness. There is only a poor attempt to summarise or reach any conclusion. English expression is largely unambiguous, but may be poor in places leading to a lack of clarity.
.

Level 2 (9-14 marks)
A developed explanation with at least one type of change developed or two described. Limited knowledge or understanding of relevant connections or cause-effect. A simplistic, over-descriptive approach. There is some place material, but it is general or only loosely related to the topic. Landform(s) not well understood. Some reasoning presented but weakly argued. Some structure but the answer lacks a clear focus on the question: weaknesses in English are apparent.

Level 1 (1-8 marks)
Simple and incomplete explanation or basic description of a change in land use. Very little understanding of 'landform' involved, very limited geographical knowledge, or examples. Cause – effect not well understood. Poor structure and poor quality of language with obtrusive errors.

Or

5   To what extent do physical systems need to be managed? Illustrate your answer with reference to **both** atmospheric and coastal systems.   **[30]**

Management is the final Question for Investigation in each study section. The stress is on their need to be managed rather than whether they are. It would be an achievement to manage either. Higher level answers may point out it is possible to manage them locally or in the short term but should they be at all ? Higher level answers could look at from whose viewpoint should they be managed. This is a challenging question so look for evidence of a willingness to discuss the extent that they need to be managed.

Level 5 (27-30 marks)
Shows a sound understanding of physical systems and their management in a balanced essay with good detail. Arguments will be reasoned and based on well located examples. Most information is soundly ordered with clear evidence of structure. There is a sound attempt to summarise or reach an evaluative conclusion. Uses appropriate terminology, accurate and detailed knowledge and has almost faultless use of English.

Level 4 (21-26 marks)
Shows understanding of some issues related to the topic. Some place specific material used, which may lack full detail. Arguments may show some reasoning and may be related to examples. Overall structure will show some ordering but may have some flaws. There is some attempt to summarise or reach an evaluative conclusion. English expression may mainly be good but show weaknesses in places or some lack of clarity.

Level 3 (15-20 marks)
Shows some understanding of a few issues related to the topic. A little place specific material will be given, but detail may be poor. Arguments will only have a little reasoning and may have only a little support. Information used shows only a little ordering, so the overall structure will have some weakness. There is only a poor attempt to summarise or reach any conclusion.

English expression is largely unambiguous, but may be poor in places leading to a lack of clarity. Max. if reference to only one system .

Level 2 (9-14 marks)
Some explanation of the need to manage physical systems. Limited knowledge or understanding of relevant connections or cause-effect. A simplistic, over-descriptive approach. There is some place material, but it is general or only loosely related to the topic. Systems not well understood. Some reasoning presented but weakly argued. Some structure but the answer lacks a clear focus on the question: weaknesses in English are apparent.

Level 1 (1-8 marks)
Simple and incomplete explanation or basic description of a change in land use. Very little understanding of 'managed' or the 'systems' involved, very limited geographical knowledge, or use of examples. Cause – effect not well understood. Poor structure and poor quality of language with obtrusive errors.

Mark Scheme 2688
June 2006

Guidance for Using the 2688 Mark Scheme

Thank you for agreeing to mark the 2688 paper. I hope you will find it interesting and rewarding. The following notes are to help in using the mark scheme.

Marking should be in red. Please put a tick after any sentence, phrase or word which contributes to the overall credit of the work. If it helps to identify the credit, please bracket the creditable material. This can also be useful if two weak ideas, each hardly worthy of credit, are linked to make a creditable point, but may be quite widely separated in the text.

If the credit ticked indicates that a certain Level has been achieved, please annotate the tick. e.g. "Mid-Level 2 detail". Other annotations are particularly helpful. Some examples are; if some weak material is just worthy of some recognition, or is embedded in inaccurate or irrelevant material, please add a J for "just". If there is material that is not really worthy of credit but may have some weak bearing on the answer, please insert an inverted "v" ^. Any other annotation that helps clarify the marking is welcome.

At the end of a section, where the mark is awarded, please give a brief comment to summarise the qualities credited, or why further credit has not been given, along with the mark awarded. e.g. "Covers main points but examples very general."

All the above points should indicate to a later reader why the final mark has been awarded.

Answers may well show qualities from different levels. The majority of an answer may be of a Level 2 standard but one or two points may have the beginnings of Level 3. Such an answer would be at the top end of Level 2. If one or two clear Level 3 statements are made, along with a good deal of Level 2 material, the bottom end of Level 3 would be appropriate. Similar considerations should be given at boundaries between other levels. An overall 'best-fit' Level is awarded.

The mark scheme gives only an indication of likely content. Some centres will have covered case studies that allow credit to be achieved in other ways. The bullet points list possible points. Other content may appear in an answer and still gain full marks.

Each question has its own level descriptors. Some candidates may answer in a way not anticipated, or interpret the question in a way not anticipated, nevertheless, creditworthy. In such cases the generic level descriptors should be used. They are also useful as a second check that the mark awarded reflects the quality of the answer.

The generic level descriptors for each sub part of a question are the same for all Section A questions. That is, for example, all Section A, part (b) answers have the same generic level descriptors. Similarly, the generic level descriptors are the same for both Section B questions. In this way, equal weight is given to each question in each Section. This should also make it easier to learn the mark scheme. It should also help maintain the same standard between different years and sessions of the examination.

Generic Level Descriptors

Section A, part (a)

Level 3 (8 - 9 marks)
Description is comprehensive and detailed.
Evidence from the resource is used extensively to support points.
Candidate may further support points from own knowledge.

Level 2 (5 - 7 marks)
A sound description but some important points missed.
Some evidence from the resource is used to support some points.
Own knowledge may be used in support of points instead of resource.

Level 1 (1 - 4 marks)
Focus on one or two descriptive points. Several important points missing.
Very little evidence used in support either from the given resource,
or from own knowledge.

Section A, part (b)

Level 3 (8 - 9 marks)
Explanation includes a wide range of points and shows very good understanding.
Evidence is used to exemplify points and assist in explanation.
The evidence will be appropriately selected from the resource, or be drawn from the candidate's own knowledge.

Level 2 (5 - 7 marks)
Some sound explanatory points made but there are important gaps in the explanation and a partial understanding shown. Some points will be supported by evidence but some explanatory points will not be exemplified. Limited evidence may be drawn from the resource, or from own knowledge

Level 1 (1 - 4 marks)
One or two explanatory points made, but the overall understanding will be weak.
Most important points may be missed. Little, if any, use of evidence in support of points made, either from the resource or own evidence.

Section A, part (c)

Level 3 (10 - 12 marks)
Extensive use of case study material used in explanation.
Explanation is comprehensive and shows very good understanding.
Most aspects of the issue are raised and commented on.
Evidence is place specific and is fully appropriate to illustrate points made.

Level 2 (6 - 9 marks)
Some case study material is given to support some important points of explanation.
Explanation shows good understanding of some points but the explanation is incomplete. Some important aspects of the issue are missing. Some evidence may be place specific but some may be rather general. Evidence selected may not always be appropriate to illustrate points made.

Level 1 (1 - 5 marks)
Little case study material is given. Explanation is limited and partial with many major points not dealt with. Evidence is generalised rather than place specific. Evidence given may not be particularly appropriate to support points made.

Section B

Level 5 (27 - 30 marks)
Shows a sound understanding of the issues related to the topic.
Good use of appropriate place specific material. Will have good detail.
Arguments will be reasoned and be based on examples provided.
Most information is soundly ordered with clear evidence of structure.
There is a sound attempt to summarise or reach a conclusion.
English expression is sound and clear in most places.

Level 4 (21 - 26 marks)
Shows understanding of some issues related to the topic.
Some place specific material used, which may be may be loosely appropriate, but may lack full detail.
Arguments may show some reasoning and may be related to examples.
Overall structure will show some ordering but may have some flaws.
There is some attempt to summarise or reach a conclusion.
English expression may mainly be good but show weakness in places or some lack of clarity.

Level 3 (15 - 20 marks)
Shows some understanding of a few issues related to the topic.
A little place specific material will be given, but detail may be poor.
Arguments will only have a little reasoning and may have only a little support.
Information used shows a little ordering, so the overall structure will have some weakness.
There is only a poor attempt to summarise or reach any conclusion.
English expression is largely unambiguous, but may be poor in places leading to a lack of clarity.

Level 2 (9 - 14 marks)
Answers scoring in this range will show two or more of the following characteristics:-
Shows a little understanding of very few issues related to the topic.
There is some place material, but is general or only loosely related to the topic.
Some reasoning presented but weakly argued.
Information used shows only a little ordering, and overall structure is distinctly weak.
There is some evidence of attempt to summarise or reach any kind of conclusion.
English expression is simple. Clarity may be limited.

Level 1 (1 - 8 marks)
Answers scoring in this range may show one of the following characteristics, or alternatively, may contain other material which may have some slight relevance to the answer:-
Shows a little understanding of very few issues related to the topic.
There is some place material, but is general or only loosely related to the topic.
Some reasoning presented but weakly argued.
Information used shows only a little ordering, and overall structure is distinctly weak.
There is some evidence of attempt to summarise or reach any kind of conclusion.
English expression is simple. Clarity may be limited.

1 **(a)** **Describe the costs and benefits of development for businesses and the environment when they locate on greenfield sites such as Burnfield Industrial Park, shown in Fig. 1.** **[9]**

- firms have room for expansion, good communications, business links
- firms have constraints on operations to meet regulations
- environment is protected from excessive degradation
- environment suffers as open land is lost, built-up area grows

Level 3 (8-9 marks)
At least 3 of the 4 elements of cost/benefit for businesses/environment are covered well.
Description is substantial for the key observations
Good use is made of the resource, or own examples given

Level 2 (5-7 marks)
Costs and benefits covered but imbalance or gaps
Not all descriptions are full
Some use of the resource, or own examples given

Level 1 (1-4 marks)
May only deal with costs/benefits, or businesses/environment, or very superficial if broader
Description thin throughout
Little if any use of the resource or own examples

1 **(b)** **Explain why many companies may not wish to locate in established industrial zones close to city centres.** **[9]**

- May make reference to one or more cities from MEDC or LEDC contexts
- Lack of room for expansion, outdated premises
- Difficulties of reaching motorway network/airports, congestion in inner areas
- Less attractive environment than suburbs and beyond
- Difficult to recruit skilled staff locally, hard to reach for skilled staff

Level 3 (8-9 marks)
Explains two or more points
Explanation is clear and detailed
Place/company examples may clarify points

Level 2 (5-7 marks)
Explains one point well with some others, or several without great depth
Explanation is clear and detailed for at least one point, or less detailed for a range of points
Place/company example may clarify a point

Level 1 (1-4 marks)
Some explanatory points introduced
Explanation is not clear or detailed for any point
Very general, any support given provides no clarity

1 **(c)** **With reference to examples, explain how the global location of economic activity is changing as a result of new technology in transport and telecommunications.** **[12]**

- Cheaper air travel making air transport possible for increasing number of goods/longer haul
- Increasing networks of motorways, and/or rail
- Containerisation allowing easy transfer from ships to lorries to trains
- Good telecommunications allow call centres in wide variety of locations
- Video conferencing, mobile phones, wireless mobiles free management locations

Level 3 (10-12 marks)
Sound coverage of changes resulting from both transport and telecommunications
Explanation is clear for both elements
Place specific examples given in support
For top of level, named technologies will be given, e.g. video conferencing, containerisation expected

Level 2 (6-9 marks)
Good explanation of changes resulting from either transport or telecommunications, or more moderate coverage of both
Some good explanation but with less clear or detailed parts
Some valid support provided

Level 1 (1-5 marks)
Some relevant points raised but none in any detail
Explanation is unclear or undeveloped
Little if any support given. Any given is rather general.

2 **(a)** **With reference to Fig. 2, describe the impacts on rural and urban settlements in LEDCs resulting from population movements.** **[9]**

- Relief of population pressure in rural areas, lower densities, less overcrowding
- Lack of economically active age group leading to neglect and disrepair of buildings
- Expansion of settlements, successful areas as a result of upgrading by employed migrants
- Growth of informal settlements as scale of movement does not allow employment for all

Level 3 (8-9 marks)
Describes change for both rural and urban areas
Description is full and detailed for both contexts
May be sound reference to resource or other examples known by the candidate

Level 2 (5-7 marks)
Sound description of rural/urban, other neglected; or weaker description of both
Some description but not full or not well detailed
May be some reference to the resource or equivalent example

Level 1 (1-4 marks)
Some description but with major gaps
Detail very partial or very sketchy
May be little if any reference to resource or other relevant example

2 **(b)** **Explain how counterurbanisation and urban renewal are changing the function of large towns and cities in MEDCs.** **[9]**

- counterurbanisation halting the growth of residential function of larger settlements
- counterurbanisation increasing need for transport infrastructure
- counterurbanisation increasing retail, business and leisure on the fringes of settlements
- urban renewal changing variety of functions towards residential
- urban renewal creating demand for low order functions in more central areas
- urban renewal revitalising demand for existing/declining functions within settlements

Level 3 (8-9 marks)
Counterurbanisation and urban renewal are related to function
Explanation clear and well reasoned
Place-specific examples may be used to clarify points

Level 2 (5-7 marks)
Some aspects of either counterurbanisation or urban renewal are related to function, or a superficial coverage of both
Sound explanation but not fully clear, and/or gaps in reasoning
Examples provided may clarify a point

Level 1 (1-4 marks)
Some relevant points made but most components of the answer missing or very superficial
Explanation weak, with reasoning largely incomplete
Any examples clarify very little

2 **(c)** **Explain the difficulties urban planners face in one LEDC that you have studied.** **[12[**

- Scale of problems in numbers of people/size of areas involved
- Scale of problems through rapid change such as high rates of in-migration
- Difficulties related to lack of finance
- Problems related to lack of resources
- Political problems, and co-operation of communities involved

Level 3 (10-12 marks)
A range of difficulties involving both scale/number and LEDC context
Explanation clear and well reasoned
Good place-specific detail for one LEDC

Level 2 (6-9 marks)
Several difficulties raised but either scale/number or LEDC context poorly addressed
Sound explanation but not fully clear, and/or gaps in reasoning
Sound exemplification but detail rather thin

Level 1 (1-5 marks)
Some difficulties raised but scale/number and LEDC context weak if present
Explanation weak, with reasoning largely incomplete
Little if any exemplification, mainly general, with just country or city names

3 **(a)** **Describe the population trends in the UK reflected in the redevelopment of land shown in Fig. 3.** **[9]**

- Relative decline in number of young people
- Increasing number of old people, ageing population
- Low and decreasing birth rate (12/1000)
- Low and decreasing death rate (10/1000)
- Increase in life expectancy (78)
- Little overall increase or decline (+0.2% pa)
- Migration trends only, such as retirement, counterurbanisation or urban renewal, up to Level 2.

Level 3 (8-9 marks)
Describes growing aged population and declining youth
Sound balance in terms of young and aged
Support given in terms of birth rates, death rates/increase in life expectancy

Level 2 (5-7 marks)
Identifies both trends
Young and aged mentioned but imbalance between them
Some reference to either birth rates, death rates or increase in life expectancy

Level 1 (1-4 marks)
Only one trend identified, or inaccurate trends
Either young or aged not given, or ultra superficial on both
Little or no reference to birth/death rates or life expectancy

3 **(b)** **Explain how economic development is affecting fertility and mortality.**
[9]

- Increase in development most likely but credit answers showing consequences of lack of it
- Increasing birth rates through spending on immunisation programmes/food supply, lowering infant mortality
- Decreasing birth rates where children no longer economic asset/women increasing role in economy
- Decreasing death rates through better health care
- Increased life expectancy through health care/improved living conditions
- Overall increasing/decreasing rate of increase depending on examples, but should be reasoned

Level 3 (8-9 marks)
Covers birth rates, death rates in some detail
Explanation clear and well reasoned
Clear link with economic development

Level 2 (5-7 marks)
Covers most trends but may be imbalance between them, or superficial if broad
Sound explanation but not fully clear, and/or gaps in reasoning
Some indication of link, but not fully developed

Level 1 (1-4 marks)
Some trends covered but very large gaps
Explanation weak, with reasoning largely incomplete
Little if any indication of link

3 **(c)** **Explain the need for, and effects of, population policies in one or more countries that you have studied.** **[12]**

- Rapid growth, ageing population or problematic distribution for problems
- Anti-natalist, pro-natalist or distribution solution attempted - policy clear
- Consequences described, both intentional and inadvertent
- Detail may be regional/local but needs to be related to national at some point
- More than one country required

Level 3 (10-12 marks)
Need for, details of, and consequences of policies equally clear for one or more countries
Explanation clear and well reasoned
Clear, place-specific examples

Level 2 (6-9 marks)
Gaps in need for, details of, or consequences of policies
Sound explanation but not fully clear, and/or gaps in reasoning
Several points exemplified but incomplete support

Level 1 (1-5 marks)
Some coverage of just one aspect, or very superficial if all aspects attempted
Explanation weak, with reasoning largely incomplete
Little if any exemplification, that given is general

4   **'Economic change can have many impacts, for example social and environmental.' How can impacts, both positive and negative, be managed?**

           [30]

- Economic change may be of any kind, e.g. in employment, exploitation of resources, subsistence to commercial agriculture
- Links between economic change and impacts should be clear
- Change should be linked to more than one impact, such as social and environmental
- Some balance between positive and negative should be included
- Management may be one comprehensive scheme, or a series of separate measures

Level 5 (27-30)
Considers changes with positive and negative impacts in one or more named locations, with some clear management
Located example(s), with detail on most elements covered
Arguments are reasoned, based on evidence and logically ordered
There may be a very good attempt to summarise or reach a conclusion
English expression is sound and clear in most places

Level 4 (21-26)
Change, positive and negative impacts, and management included but may have imbalance in coverage
Good exemplar detail on several elements, mainly located
Well argued, but may be lacking in one of reasoning, evidence or logical ordering
There may be a sound attempt to summarise or reach a conclusion
Only minor lapses in English expression

Level 3 (15-20)
Not all elements covered, but sound coverage of some aspects
Any exemplar material lacking breadth or depth if located, or only good generic
Sound level of argument but may have weaknesses in reasoning, evidence or logical ordering
There may be some attempt to summarise or reach a conclusion is made
English is generally good although there may be some weak sections.

Level 2 (9-14)
One element covered beyond a basic level but majority of answer missing
Any located exemplification lacking detail, or moderate generic
Distinct weaknesses in reasoning, evidence or logical ordering.
There may be a very weak attempt to summarise or reach a conclusion.
English is often awkward but some sound expression in places.

Level 1 (1-8)
Some relevant material introduced but not developed as an answer
Little if any exemplification, just a name, or limited generic
Weak in reasoning, use of evidence and logical ordering.
There may be little or no attempt to summarise or reach a conclusion.
English very simple with little sound expression.

5   **'Comparing the development of countries is difficult.'**
     How far do you agree that this is true for countries that you have studied?
     You may use information from settlement, population and economic studies that
     you have undertaken.   **[30]**

- Development varies over time, rapid development always ahead of statistics.
- Uneven development within countries, some regions lag, unequal distribution of wealth.
- Often uneven development across measures, e.g. may be high on education whilst low on GNP/capita
- Comparable measures do reflect genuine differences between countries, e.g. GDP/capita.
- Some compound measure such as HDI take several indicators into account to 'average' development.
- Subtle differences may not show up, but large differences between LEDCs and MEDCs clearer.

Level 5 (27-30)
Shows degrees of difficulty of measurement and comparison between at least two countries
Examples have sound place detail on more than one aspect
Arguments are reasoned, based on evidence and logically ordered
There may be a very good attempt to summarise or reach a conclusion
English expression is sound and clear in most places

Level 4 (21-26)
A range of difficulties related to measurement or comparison for two or more countries, but some imbalance on one or two elements
Examples are located with some detail on at least one aspect
Well argued, but may be lacking in one of reasoning, evidence or logical ordering
There may be a sound attempt to summarise or reach a conclusion
Only minor lapses in English expression

Level 3 (15-20)
Some good material on difficulties in comparison for two countries or measures, but incomplete coverage
Some sound examples, but majority of points not/poorly supported, or just good generic
Sound level of argument but may have weaknesses in reasoning, evidence or logical ordering
There may be some attempt to summarise or reach a conclusion is made
English is generally good although there may be some weak sections.

Level 2 (9-14)
A few relevant points on some aspects but most possible components missing
Some place/generic exemplification is provided, but nothing developed far
Distinct weaknesses in reasoning, evidence or logical ordering.
There may be a very weak attempt to summarise or reach a conclusion.
English is often awkward but some sound expression in places.

Level 1 (1-8)
Some weakly relevant points, but question largely unanswered
Little if any exemplification of any kind
Weak in reasoning, use of evidence and logical ordering.
There may be little or no attempt to summarise or reach a conclusion.
English very simple with little sound expression.

Mark Scheme 2689
June 2006

Notes for Examiners

1   Prior to the co-ordination meeting, Team Leaders and assistant examiners should read, and provisionally mark (in pencil), a selection of scripts using the guidance given in this mark scheme. The scripts should be chosen to cover the mark range, and to exemplify any interpretations of questions which do not appear to be accommodated by the mark scheme. The scripts should be brought to the co-ordination meeting where they will be used as a basis for refining, modifying and exemplifying the mark scheme.

2   For each question the mark scheme describes the general qualities and characteristics required for the award of marks in three levels. A candidate demonstrating all the requirements for a level should normally be awarded full marks for that level. If the answer contains any additional material which is credit worthy, but does not meet all the requirements of the next level, an intermediate mark should be awarded.

3   It is anticipated that further details will be added to the levels descriptors at the co-ordination meeting in the light of the candidates' responses to the questions. Given the open-endedness of the questions in this paper, therefore, examiners should be prepared to credit approaches which do not follow the most likely ones described in the levels descriptors, provided they are equally valid. In such cases a brief note should be added at an appropriate point in the script to indicate the reason(s) for the decision.

4   In marking answers to those parts of questions in which the candidates are required to write in continuous prose, attention should be given to the ability of candidates to organise, present and communicate information, ideas, descriptions and arguments, and data in a clear, logical and coherent manner taking into account their use of grammar, punctuation and spelling. Such answers will be assessed using levels of response criteria as indicated below.

The following levels of response will be applied with regard to the candidate's quality of written communication:

Candidates placed in Level 1 or above should be generally correct in their spelling, punctuation and grammar

Candidates placed at Level 2 or above should be presenting their answer in clearly expressed English.

Candidates placed in Level 3 should produce a well-structured and presented answer.

Report of Personal Enquiry and Questions 1 to 3

These parts of the examination are designed to assess the candidate's ability to plan, conduct and evaluate the outcomes of a geographical investigation. The Cover Sheet, which should accompany the report, will include a brief outline from the centre which describes the investigation(s) undertaken at the centre to prepare their candidates. The purpose of the outline is to provide examiners with an accurate and common background to the work undertaken by candidates from any one centre. Care should be taken when marking the answers to questions 1 to 3 not to credit mere repetition of the report.

Given the diversity of investigations that candidates will have undertaken, responses will vary considerably. Examiners should be prepared to award up to full marks for answers which do not follow precisely the pattern suggested by the descriptors, but which nevertheless show similar quality.

The Report

Examiners are asked to read carefully the outlines of work undertaken before marking the report. Depending on the activities undertaken, candidates may have had varying opportunities to comment on the different aspects of investigative work. This should be taken into account when marking work from different Centres. The report is designed to assess the candidate's ability to produce a geographical investigation.

The report on the Personal Enquiry will be marked against the following level descriptors.

The report should be read and given an impression grade before marking against the level descriptors.

Assessment Criteria (AC)	Levels marks available for each AC				Overall marks available for each level	
	L1	L2	L3		Level	Marks
Hypothesis, design and presentation	1	2-3	4		1	1-7
Data collection and outcomes	1-4	5-7	8-9		2	8-15
Evaluation and understanding	1-2	3-5	6-7		3	16-20

Hypothesis, Design and Presentation

Level 3 (4 marks)
There is a well-constructed hypothesis which is relevant to the stated aims of the study.

The report is well structured and fluently expressed.

Level 2 (2-3 marks)
The hypothesis is relevant to the stated aims.

The report is presented in a clear and intelligible manner.

Report of excessive length will not enter Level 3.

Level 1 (1 mark)
A hypothesis is stated that has some relevance or the aims are identified.

The report displays generally correct spelling, punctuation and grammar.

Data Collection and Outcomes

Level 3 (8-9 marks)
The report shows the following, but may lack detail or be slightly unbalanced:
- How decisions were made about the sources of data.
- The appropriateness of the methods and strategies used to fulfil the purpose of the enquiry.
- How these led to the outcomes.

The presentation and analysis of the outcomes are clear and relevant.

Level 2 (5-7 marks)
The report shows the following, but may lack detail and be unbalanced:
- How decisions were made about the sources of data.
- The appropriateness of the methods and strategies used to fulfil the purpose of the enquiry.
- How these led to the outcomes.

The presentation and analysis of the outcomes are generally clear and relevant.

Level 1 (1-4 marks)
A descriptive report which summarises the data collection and outcomes, although there may be some lack of coherence between and within the sectors.

Evaluation and Understanding

Level 3 (6-7 marks)
The report shows the following, but may lack detail or be slightly unbalanced:
- The evaluation recognises the validity of the outcomes, linking them to the data collected.
- Alternative strategies and sources of data that could have been used are discussed.
- Suggestions of how the study could be modified or extended are included.
- The significance of the results may be related to the particular area of geography.

Level 2 (3-5 marks)
The report shows the following, but may lack detail and be unbalanced:
- The evaluation recognises the validity of the outcomes, but they are unlikely to be linked to the data collected.
- Alternative strategies and sources of data that could have been used are discussed.
- Suggestions of how the study could be modified or extended are included.

Level 1 (1-2 marks)
The evaluation is simple and is likely to be in terms of its success in relation to the original topic or question.

Questions 1 to 3
Credit answers that are given in terms that *extend* the Report on the Personal Investigation.

1   Explain why the results of your investigation may be limited in their usefulness to others.

[20]

Indicative content:
- Limited sample size.
- The one off nature of the investigation.
- Probable sampling errors.
- Difficulties with fieldwork skills.
- Inappropriate location.

The following content is applied to each level:
- The discussion relates to the personal enquiry.
- The relevance of the material presented.
- The understanding of why the results may be limited in their usefulness.
- Specificity of reference to others, e.g. organisations, individuals.

Level 5 (18-20 marks)
Either   **Two or more** aspects of the limited nature of the results are discussed **well**.
Or   **More** aspects of are discussed in less depth.

The answer is logically ordered and well presented.

Level 4 (14-17 marks)
Either   **Two or more** aspects of the limited nature of the results are discussed **quite well**.
Or   **More** aspects are discussed **in less depth**.

The answer is generally logically ordered and well presented.

Level 3 (9-13 marks)
Either   **Two or more** aspects of the limited nature of the results are discussed **moderately well**.
Or   **More** aspects are discussed **in less depth**.

There are lapses in the logic and presentation of the answer.

Level 2 (5-8 marks)
Either   **One or more** aspects of the limited nature of the results are discussed **adequately**.
Or   **More** aspects are discussed **in less depth**.

There are noticeable gaps and/or errors in the answer.

Level 1 (1-4 marks)
Either   **One or more** aspects of the limited nature of the results are discussed **in a basic manner**.
Or   The response is **irrelevant** to the personal enquiry.

There are considerable gaps and/or errors in the answer, e.g. it is not recognised that the results are of limited value.

2   **Secondary information (data and/or geographical theory) is often used as part of a geographical investigation. Describe what secondary information you used and the extent to which it contributed to your investigation.**

[20]

Indicative content:

- Maps to locate study area and individual sites in planning and field work stages.
- Textbooks to establish expected geographical theory.
- Data from government and statutory organisations to act as main or corroborative data source, e.g. Office of National Statistics; Meteorological Office; English Nature; Environment Agency; police force; district and county councils.
- Websites to establish geographical theory and collect secondary data sets.
- Library archives and newspapers for local information.

The following content is applied to each level:
- The discussion relates to the personal enquiry.
- The relevance of the material presented.
- Depth of knowledge of secondary data.
- Understanding how much secondary data can contribute to an investigation.

The following content *may be* discussed at each level:
- How and why data sources were/could have been obtained.
- Practical problems when collecting secondary data.

Level 5 (18-20 marks)
Either   **Two or more** sources of secondary data are discussed **well***.*
Or   **More** sources are discussed **in less depth**.

The answer is logically ordered and well presented.

Level 4 (14-17 marks)
Either   **Two or more** sources of secondary data are discussed **quite well**.
Or   **More** sources are discussed **in less depth**.

The answer is generally logically ordered well presented.

Level 3 (9-13 marks)
Either   **Two or more** sources of secondary data are discussed **moderately well**.
Or   **More** sources are discussed **in less depth**.

There are lapses in the logic and presentation of the answer.

Level 2 (5-8 marks)
Either   **One or more** sources of secondary data are discussed **adequately**.
Or   **More** sources are discussed **in less depth**.

There are noticeable gaps and/or errors in the answer.

Level 1 (1-4 marks)
Either   **One or more** sources of secondary data are discussed **in a basic manner**.
Or   The response is **irrelevant** to the personal enquiry.

There are considerable gaps and/or errors in the answer.

3   **Discuss the impact of human and/or physical factors upon your choice of study area and sites for data collection.**   **[20]**

Indicative content: factors affecting choice of study area and data collection sites include:

Human:
- Impact on the physical landscape: canalising rivers, building beaches, woodland planted or cut down.
- Impact on the human landscape: location of roads, buildings and barriers affect physical and human investigations.

Physical:
- Inaccessibility due to geomorphological and biogeographical influences.
- Climatic factors: temperature changing too quickly; too cold/hot to conduct work, e.g. instruments do not work, river frozen or in spate, waves too big or none.
- Temporal factors: tide in or spring tide.

All these factors may have changed since maps – initially used for planning the investigation – were produced.

The following content is applied to each level:
- The discussion relates to the personal enquiry – the study area and the sampling sites.
- The relevance of the factors selected.
- The relationship between the human and physical factors and the study area and data collection sites.
- Impacts in terms of positive and negative influences on the methodology including sampling method and/or sample size.

Level 5 (18-20 marks)
Either   **Two or more** human and/or physical factors are discussed **well***.
Or   **More** human and/or physical factors are discussed **in less depth**.

The answer is logically ordered and well presented.

Level 4 (14-17 marks)
Either   **Two or more** human and/or physical factors are discussed **quite well**.
Or   **More** human and/or physical factors are discussed **in less depth**.

The answer is generally logically ordered well presented.

Level 3 (9-13 marks)
Either   **Two or more** human and/or physical factors are discussed **moderately well**.
Or   **More** human and/or physical factors are discussed **in less depth**.

There are lapses in the logic and presentation of the answer.

Level 2 (5-8 marks)
Either   **One or more** human and/or physical factors are discussed **adequately**.
Or   **More** human and/or physical factors are discussed **in less depth**.

There are noticeable gaps and/or errors in the answer.

Level 1 (1-4 marks)
Either   One or more human and/or physical factors are discussed **in a basic manner**.
Or   References to human and/or physical factors are **irrelevant** to the personal enquiry.

There are considerable gaps and/or errors in the answer.

4   **Study Fig. 1 which shows the leisure facilities in the town of Hexham, Northumberland. Students are planning an AS level geographical investigation into the use of these leisure facilities by the residents of Hexham (population 12,000). With reference to Fig. 1, justify a suitable sampling method and sample size to collect the data.**

Indicative content:

Sampling method:

- Choice between: random, systematic, stratified random, stratified systematic, opportunistic.
- Choice between: point, line, area sampling.
- Choice between: doorstep (face-to-face, leave for self completion), telephone, postal, non-household locations (on street in town, at leisure activities). Potential impact of choices on response rates and accuracy of data supplied. Non-household locations must ensure respondent lives in Hexham. Collection at leisure activities unlikely to pick up non users. Household locations: hard to catch potential respondent at home.
- Identify sampling locations and times.
- Conduct pilot.

Sample size:

- Large enough to be able to carry out statistical tests and construct meaningful graphical representation. Manageable given the resources available: time and manpower.

The following content is applied to each level:
- The discussion in relation to Hexham with reference to the map.
- The justification of the sampling method. [N.B. Justification will include some description.]
- The justification of the sample size. [N.B. Justification will include some description.]

The following content *may be* discussed at each level:
- Conducting a pilot survey.

Level 5 (18-20 marks)
The sampling method and sample size are justified **well**.
There is **good** use of the map.
The answer is logically ordered and well presented.

Level 4 (14-17 marks)
Either   The sampling method **and** sample size are justified **quite well**.
Or   One part of the answer is carried out **well and** the other part **moderately well**.
There is **some** use of the map.
The answer is generally logically ordered well presented.

Level 3 (9-13 marks)
Either   The sampling method **and** sample size are justified (rather than described)
                 moderately well
Or   One part of the answer is carried out **quite well** and the other part **adequately**.
There is **limited** use of the map.
There are lapses in the logic and presentation of the answer.

Level 2 (5-8 marks)
Either   The sampling method **and** sample size are described rather than justified **adequately**.
Or   One part of the answer is carried out **adequately and** the other part **in a basic manner**.
There is **very little** use of the map.
There are noticeable gaps and/or errors in the answer.

Level 1 (1-4 marks)
Either   The sampling method **and** sample size are described (not justified) **in a basic manner**.
Or   References to the sampling method **and/or** sample size are **irrelevant** to the personal investigation.
There is **no** use of the map.
There are considerable gaps and/or errors in the answer.

Mark Scheme 2691
June 2006

GENERIC LEVELS

Level 5 (18-20)
Uses the resource effectively by identifying key points which are clearly linked to the question. Applies original ideas or examples to illustrate a clear understanding of the question.

Level 4 (14-17)
Uses the resource appropriately to address the key ideas of the question. Brings in some original ideas or examples to develop an understanding of the question.

Level 3 (9-13)
Extracts information from the resource and applies it to the question in a general way OR uses own ideas/examples to address the question with only superficial use of the resource.

Level 2 (5-8)
Considers the question in a simplistic, descriptive way by using a limited number of points from the resource OR very general, vague individual ideas/examples.

Level 1 (1-4)
Vague ideas which show very limited understanding of the question.

Level 5 (23-25)
Shows a clear understanding of the question and uses locational exemplifications to support a reasoned response. Answer is well structured and logical with effective presentation skills.

Level 4 (18-22)
Shows an understanding of the question and selects appropriate locational examples to support answer. Generally well organised and logical and clearly presented.

Level 3 (12-17)
Shows an awareness of the question and some locational exemplification, although argument might be vague or disjointed. Some evidence of structure, although presentation may be variable.

Level 2 (7-11)
Vague understanding of the question with generalised and simplistic observations. Locational exemplification limited to general points which lack a clear focus on the question. Some basic structure, although weakness in presentation apparent.

Level 1 (1-6)
Very limited understanding of the question and vague general knowledge used to support ideas. Poorly organised and presented with a lack of structure.

Natural Hazards and Human Responses

1   (a) **To what extent does Fig.1 illustrate the vulnerability of LEDCs to natural hazards?**
                                                                            [20]

- Vulnerability of LEDCs' /can make contrasting points.
- Observations about planning, responses.
- Availability of rescue services/emergency services.
- General planning issues.
- Quality of buildings.
- Lack of communications.
- Secondary effects of hazards.
- Reliance on aid issues.

     (b) (i)   **Either**

               **Discuss the view that human activities have increased the frequency and
               impact of natural hazards.**   **[25]**

- Definition of human activity/hazards.
- Locational appreciation of human habitation and hazards.
- Frequency <u>and</u> impact considered.
- May include some clear references about types of hazard that can be
  human induced. (Floods/Avalanche etc).

Level 3 (12-17 marks)
Some "discussion" which brings in human induced hazards

Level 4 (18-22 marks)
Clear discussion using different types/places. Some appreciation of both frequency and
impact

Level 5 (23-25 marks)
Detailed discussion of relative hazard appreciation, using exemplars, clear appreciation of
frequency and impact.

          (ii) **Or**
               What part does perception play in the management of natural hazards?
                                                                            [25]

- What is meant by hazard perception?
- Different types of response based upon perception.
- How does perception inform decision making.

Level 3 (12-17 marks)
Some appreciation of importance of perception in relation to decision making.

Level 4 (18-22 marks)
Clear understanding of perception – examples of different types of perception – links to
responses.

Level 5 (23-25 marks)
Detailed understanding of different types of perception and uses examples to clearly show
how these inform decision making.

Climate and Society

2   **(a)**   **Compare the usefulness of each weather map in Fig.2.**   **[20]**

- Evaluate suggests observing some value/use.
- Some key points might include:
- Quality of data
- Ease of use
- Type of data
- Static data/forecasting data
- Technical language.
- Consideration of specific use   -   short term (today)
                                            -   longer term (next few days).

   (b)   **(i)**   **Either**
                    Discuss the view that climate change is a result of both natural events and human activities.   **[25]**

- Appreciation of climate change with idea about historical rates of change.
- Evidence of geological changes which could include ice ages/periods of desert formation.
- Natural factors that can affect climate change.
- Human factors that can affect climate change.

Level 3 (12-17 marks)
General appreciation of the question, limited discussion but highlights factors that affect climate including natural and human factors.

Level 4 (18-22 marks)
Some understanding of historical/geographical change with reasons. Appreciation of human impacts with broader discussion.

Level 5 (23-25 marks)
Detailed appreciation of both natural and human factors with clear historical reference. Broad discussion which clearly brings out relative judgements.

          (ii)   **Or**
                    To what extent do the impacts of short and long term climate hazards differ?   **[25]**

- Understanding of short/long term.
- Climatic hazards clearly expressed.
- Impacts can be social, economic, environmental.

Level 3 (12-17 marks)
Understanding of short/long term hazards, descriptive appreciation of the impacts. Limited relative judgement, largely human.

Level 4 (18-22 marks)
Uses examples to express different types of climatic hazards and begins to consider differences beyond simple human impacts.

Level 5 (23-25 marks)
Clear understanding of short/long term hazards. Uses examples to express human and environmental impacts.

Cold Environments and Human Responses

3   (a)   How far does Fig.3 illustrate both opportunities and constraints for the development of leisure activities in cold environments?   [20]

- Opportunities might include

    - Scenery
    - Mountains/Lakes
    - Activities
    - Climate

- Constraints might include

    - Building/development
    - Remoteness
    - Communications
    - Fragility of the environment
    - There are other types of cold environments

(b)   (i)   Either
Using examples you have studied, examine the extent to which cold environments are threatened by economic development.   [25]

- Cold environments could be high latitude or high altitude.
- Economic development – accept open definition which could be general or specific.
- "Threatened" because of their fragile nature.
- Development could be industrial (oil etc) or tourism.
- "To what extent" may be locational or based upon management.

Level 3 (12-17 marks)
Tends to focus on examples of where areas are threatened with limited understanding of fragility or management.

Level 4 (18-22 marks)
Some understanding of fragility of environments and why some areas might be under pressure. Uses examples to make points. Tentative idea about "extent".

Level 5 (23-25 marks)
Detailed understanding of nature of cold areas, specific examples of areas under pressure and appreciation of extent through location or management.

(ii)   **Or**
            Examine the environmental impacts on landscapes where fluvio-glacial deposits are extracted and suggest how these landscapes might be restored.   **[25]**

- Extraction of fluvio-glacial deposits for construction and subsequent environmental impacts.
- Nature of areas in terms of fragility and the scale of the extractive industry.
- Clear understanding of landscape impacts.
- How areas might be restored.

Level 3 (12-17 marks)
Descriptive understanding of the impact of large scale gravel extraction – some basic ideas about reclamation.

Level 4 (18-22 marks)
Some understanding of the scale of damage with use of examples. Examples of reclamation schemes.

Level 5 (23-25 marks)
Examples of damage with appreciation of the nature of the damage, environment and scale. Examples used to show both damage and reclamation.

Tropical Environments and People

4   (a)   To what extent does Fig. 4 represent the issues associated with the sustainable development of tourism in tropical environments?   [20]

- Tropical environments are often LEDC areas.
- These might lack infrastructure.
- How eco-friendly is eco-tourism?
- Is eco-tourism sustainable in that it always considers local people?
- Conflicts between local people and environmental management.
- Conflicts between sustainable management and economic development.

(b)   (i)   Often degrade natural systems.   [25]

- Understanding of ecosystems in tropical environments.
- Understanding of the fragile nature of tropical ecosystems.
- "Large-scale" – could be minerals, roads, power, agriculture, etc.
- Understanding of sustainability – links to exploitation.
- Examples of managed development.

Level 3 (12-17 marks)
Tentative examples used to describe how tropical ecosystems are exploited by development. Some appreciation of the nature of ecosystems.

Level 4 (18-22 marks)
Clear examples of large scale development projects that have damaged environments. Links to fragile nature of ecosystem. Tentative discussion with some mention of relative impact.

Level 5 (23-25 marks)
Clear examples of large scale development projects and their effect on fragile ecosystems. Clear discussion about relative impacts and some understanding of sustainable development.

(ii)   Or
         Examine the challenges faced by farmers in tropical environments.
                                                                                           [25]

- Nature of the ecosystem – why they are fragile?
- Understanding of the need for clear understanding of ecosystems
- Why badly managed systems damage areas.
- Challenges – managing landscape/climate/remoteness/disease/tribal problems/ideas about sustainability.

Level 3 (12-17 marks)
Descriptive understanding of challenges, why areas can be easily damaged; major problems.

Level 4 (18-22 marks)
Clear appreciation of the need for careful management to be sustainable – use of examples.

Level 5 (23-25 marks)
Detailed examples used to show fragility and problems linked to soil, climate, disease, etc. Detailed use of examples, clear understanding of sustainability.

Food Supply – Management and Change

5   (a)   To what extent is short term aid important in resolving food shortages in LEDCs? Use Fig. 5 to support your answer.   [20]

- Aid can be short-term (disaster response) or long-term (developmental).
- Aid can be important in stopping hunger turning into famine.
- Distinction between Government aid and NGOs.
- Aid can be very effective but there may be questions of over-reliance.
- Aid is not just food, also other issues such as health.

(b)   (i)   Either
How do large companies influence food production and supply?   [25]

- Large companies can be agribusiness, food processing, supermarkets, etc.
- Influence can be choice of crops, etc., quality, price, marketing, etc.
- Part played by international buyers, supermarkets and marketing.

Level 3 (12-17 marks)
Some ideas about influences. Some ideas but tends to lack detail. Examples used but lack of detail/accuracy.

Level 4 (18-22 marks)
Uses examples to examine a range of influences.

Level 5 (23-25 marks)
Detailed examples which are used to analyse the influences on both production and supply.

(ii)   Or
'Modern agricultural practices often lead to environmental degradation.' Discuss.   [25]

- Modern agricultural systems could include a range of possibilities from LEDCs to MEDCS.
- Environmental degradation could include flora/fauna/soil or general ecosystems.
- "Often" implies not always and considers rate of influence and management.

Level 3 (12-17 marks)
Tends to accept statement and describes influences/impacts. Limited depth of ecosystem understanding.

Level 4 (18-22 marks)
Clear understanding about how modern agriculture might change ecosystems and affect environments. User of examples. Begins to consider "often" and management.

Level 5 (23-25 marks)
Detailed appreciation of links between agriculture and ecosystems using examples. Clear observations about relative impact, management.

Changing Urban Places

6   (a)   To what extent is congestion charging an effective way of reducing traffic problems in urban areas? Use Fig. 6 to support your answer.   [20]

- Growing car ownership/use puts pressure on urban areas/congestion/pollution/business costs/health.
- Aim of charging are to reduce the number of cars which:
  - eases congestion and travel time
  - improves environment.
- Cost and raising public awareness is important.
- On its own can have limited use.
- Examples suggest variable responses.
- Use of technology is quite significant.

(b)   (i)   Either
Evaluate the effectiveness of redevelopment schemes in improving the quality of life of urban dwellers in MEDCs.   [25]

- Context must be MEDC.
- Understanding about the need for redevelopment.
- What is involved in redevelopment schemes. What are the aims?
- What is meant by "quality of life"?
- Evaluate implies consider outcomes in terms of objectives.

Level 3 (12-17 marks)
Largely descriptive account of redevelopment with tentative quality of life ideas. No real evaluation.

Level 4 (18-22 marks)
Uses exemplification to identify quality of life issues and reasons for redevelopment. General evaluative points.

Level 5 (23-25 marks)
Uses examples to consider aims of redevelopment schemes in improving quality of life. Some evaluative ideas about how the objectives may have been met.

(ii)   **Or**
Evaluate the attempts to resolve the problems of one LEDC city you have studied.   **[25]**

- One <u>LEDC</u> city.
- Identify problems – range of possibilities which can be social, environmental, economic.
- Detailed appreciation of management strategies from self-help to government schemes.

Level 3 (12-17 marks)
Description of problems – limited in range – description of management.

Level 4 (18-22 marks)
Begins to offer evaluative comment through user of examples. Broader range of problems.

Level 5 (23-25 marks)
After description of broad range of problems and uses examples of management strategies to evaluate their impact.

Leisure and Tourism

7 (a) **To what extent does mass tourism present both a challenge and an opportunity for LEDCs? Use Fig. 7 to support your answer.** **[20]**

- Tourism development in <u>LEDCs</u>
- Economic benefits
  - money in economy (balance of payments)
  - jobs (direct/indirect – multiplier)
  - infrastructural developments
- Environmental challenges
  - land use change
  - increased volume of people/traffic
  - impact on flora/fauna, etc
- To what extent – use of comparative examples.

(b) (i) **Either**
Discuss the view that the British leisure and tourism industry has had to adapt to survive. **[25]**

- Changing demand for holidays – reasons.
- Growth of short-haul tourism.
- Examples of types of holiday in UK:
  - beach resorts
  - activity
  - city breaks, etc.
- Could focus on leisure activities which might be wide ranging – <u>not just</u> activity leisure.
- Idea of adaptation/change:
  - short break holidays/city breaks
  - activity holidays
  - indoor leisure
  - broader range of facilities
  - diversification into business/conference, etc.

Level 3 (12-17 marks)
Descriptive account of changing patterns of demand, growth of leisure activities/impact on UK resorts. Quite narrow range of examples – limited exemplification.

Level 4 (18-22 marks)
Clear understanding of change in demand and regional impact with exemplification. Begins to appreciate broader notion of leisure and tourism, by considering a range of options.

Level 5 (23-25 marks)
Detailed understanding of changing demand. Uses exemplars to consider responses to demand. Also clearly identifies range of possibilities including activity/scenic/city tourism/range of leisure activities.

    (ii)   **Or**
            Discuss the view that for many tourist areas in MEDCs the environment is an important resource and must be managed carefully.   **[25]**

- Must be MEDC.
- Range of ideas which might include:
    - beaches/sea
    - mountains
    - lake
    - general scenic areas.
- Might consider ideas about National Parks, etc.
- Growing pressure on areas could damage sustainability.
- Managing scenic areas to ensure sustainability.

LEDC perspective – max 15

Level 3 (12-17 marks)
Describes a narrow range of important landscapes and identifies pressures – some notion of management – general examples.

Level 4 (18-22 marks)
Clearly identifies landscape resource areas – identifies pressures, uses clear examples to express management.

Level 5 (23-25 marks)
Clearly identifies landscape resource areas – identifies pressures and specific management. Shows general understanding about the need for management/links to sustainability/Eco-tourism.

The Globalisation of Economic Activity

8 (a)   To what extent does Fig. 8 illustrate the range of goods and services controlled by transnational corporations?   [20]

- Response can be general or concentrated on one transnational.
- Hatachi is only <u>one</u> TNC – and <u>is</u> very big.
- Range of goods/services expressed:
  - ICT
  - Energy
  - Communications
  - Healthcare
  - Transport, etc.
- Shows how diversified TNCs' are in terms of range of goods/services.
- This may not be typical – many TNCs' may be more narrowly based.

(b) (i)   Either
   Evaluate the view that transnational corporations are an important part of the development process in LEDCs.   [25]

- Clear understanding of what transnational corporations are.
- What is meant by the development process
- Impact on different LEDCs can vary
- Control largely in hands of the MEDCs.
- There are advantages and disadvantages of TNCs to other countries.
- Evaluate implies a relative judgement.

Level 3 (12-17 marks)
Largely descriptive account of impact of TNC with some exemplification. Not always well balanced. No real evaluation.

Level 4 (18-22 marks)
Begins to consider relative impact in LEDCs and offers basic evaluative ideas. Uses examples to make points.

Level 5 (23-25 marks)
Clear understanding of range of impacts which brings in development, multiplier ideas. Evaluative ideas expressed through exemplars which identify relative impacts.

(ii) **Or**
'Changing labour costs and shifts in demand can lead to regional economic decline.' Explain this statement and examine the impacts of regional economic decline. **[25]**

- Changing patterns of employment and the effect on employment structures.
- Shifting global patterns ➔ NIC/LEDC
- Services (call centres, etc) ➔ NIC/LEDC
- Demand ➔ market evaluation – growth of new markets
- What is economic decline (Economic/Social/Environmental factors)
- Economic decline can have broad impacts on social structure, demographics and environmental quality.

Level 3 (12-17 marks)
Uses basic examples to express economic decline. Basic reasons which are largely descriptive.

Level 4 (18-22 marks)
Understanding of why labour costs or demand can affect regions – uses examples to express clear appreciation of regional decline.

Level 5 (23-25 marks)
Clear understanding of both why labour costs and demand create changing work patterns. Link through the multiplier to express regional decline in terms of specific exemplars.

GEOGRAPHY B (7833)

2691 - Issues in the Environment

	Question	A01	A02	A03	A04	TOTAL
CANDIDATES ATTEMPT ONE QUESTION	1(a)	8	3	3	6	**20**
	(b)	13	6	6		**25**
	2(a)	8	3	3	6	**20**
	(b)	13	6	6		**25**
	3(a)	8	3	3	6	**20**
	(b)	13	6	6		**25**
	4(a)	8	3	3	6	**20**
	(b)	13	6	6		**25**
CANDIDIATES ATTEMPT ONE QUESTION	5(a)	8	3	3	6	**20**
	(b)	16	6	3		**25**
	6(a)	8	3	3	6	**20**
	(b)	16	6	3		**25**
	7(a)	8	3	3	6	**20**
	(b)	16	6	3		**25**
	8(a)	8	3	3	6	**20**
	(b)	16	6	3		**25**
		A01	**A02**	**A03**	**A04**	
		(45)	**(18)**	**(15)**	**(12)**	**TOTAL 90**
		KNOWLEDGE	UNDERSTANDING	APPLICATION OF UNDERSTANDING	SKILLS AND TECHNIQUES	

Mark Scheme 2692
June 2006

Notes for Examiners

When marking this examination, it should be remembered that, as stated in the rubric, this is an 'Issues Analysis' paper and provides for synoptic assessment. This module is designed to build on studies of physical and human geography at AS level and A2, including the other subjects listed in the Issues in Sustainable Development. Thus top level answers in most sections should make reference to broader aspects of geographical studies, and not refer solely to material from the resource booklet.

To remind you, at AS, units include physical topics of atmospheric, landform and coastal systems, and the human topics are: Economic Activity, Settlement Dynamics and Population and Development. At A2, the Issues in the Environment module include one topic selected from: Natural Hazards, Climate, Cold Environments and Tropical Environments for the physical geography section, and one from Food Supply, Changing Urban Places, Leisure and Tourism and Globalisation of Economic Activity in the human section.

To assist marking, the following annotations are suggested:
Res - quote from Resource booklet
S synoptic reference
+ for credit-worthy point
L1 (or 2,3,4,5) for the point at which the level has been attained
 - If the next level has not been achieved, this can be indicated at the end of the
 question by, for example, adding a minus sign to the next level L2-.
 ^ Where there is significant omission of material.
Brackets or circles for place or scale references
Any further annotations or comments, particularly at the end of the question, which will help a later reader to see how the marks were awarded will also be helpful.

The mark scheme provides an indication of content which cannot be comprehensive because of the nature of the paper. It is not expected that all the points mentioned will appear even in the best answers. The information is just an indication of the type of material which might be included. Entirely different answers may achieve the same marks, and good geography that is relevant to the question should always be credited, remembering maps and diagrams too.

NB Descriptors are as guidance for top of level. The lower marks in a level may be achieved by progressing beyond the previous level and not fulfilling all the criteria for the top of the awarded level.

Please remember to mark in red, to use your checker to ensure accuracy and to follow the other guidelines in the booklet 'Instructions for Examiners'.

1   **(a)**   *Briefly* **describe the part played by the oceans in** *three* **of the following:**
Hydrological cycle
Global energy transfer
Carbon cycle
Nitrogen cycle   **[15]**

Functions of oceans highlighted in the resource are:
- As part of the hydrological cycle (indirectly – but a part of AS and A2 atmospheric studies)
- As a method of heat and energy transfer
- As a 'mixer' of salt and fresh water
- As a store of carbon, converter of CO_2 into other forms of carbon, and release of oxygen – thus-
- As a part of the carbon cycle

The nitrogen cycle is not directly mentioned but would indicate further research or knowledge beyond the resource. Annotated diagrams are very acceptable as answers and could gain full marks.

Level 3 (12-15 marks)

A balanced answer written in almost faultless English (or clearly annotated diagrams), illustrated with references to RB and/or own knowledge and good description of three functions OR very good answers on two sections, the third less well answered.

Level 2 (7-11 marks)

An answer that develops descriptions of two factors and mentions a third, or gives a superficial description of three.

Level 1 (1-6 marks)

A basic answer which may address only one function with some development or two briefly described, or a very simplistic answer on three.

   (b)   **Explain how** *two* **of the processes you described in (a) contribute to the ocean being a rich source of food for people.**   **[25]**

The nutrient cycles and upwelling of cold water create ideal conditions for plankton growth, particularly on continental shelves, and different stages of the marine food web are shown. The function of the hydrological cycle may be the most difficult to link to the food chain, but there is evidence that input of fresh water in temperate regions counterbalances the salinity of the Polar waters and Tropical regions, so plays a part in oceanic equilibrium.

Level 5 (23-25 marks)
A comprehensive answer which shows and applies a good knowledge and understanding of the processes involved written in almost faultless English. The resource booklet is used in conjunction with own knowledge.

Level 4 (18-22 marks)
Two processes more clearly explained, but with some imbalance.

Level 3 (12-17 marks)
Two processes explained moderately, or one quite well and the other partially.

Level 2 (7-11 marks)
Two processes explained partially, or one explained well.

Level 1 (1-6 marks)
A basic answer that covers one process slightly developed or two in outline.

2   **Analyse ways in which the oceans could be managed sustainably. Support your views with evidence from the resource booklet and your own knowledge.**   **[40]**

A variety of methods for achieving sustainability are shown, including small scale fishing, legislation and international agreements and a proposal of 'zoning' in environmentally sensitive areas such as the Great Barrier Reef are all referred to. It is expected that candidates will bring some own knowledge to bear here.

Pollution (from a variety of sources), over-fishing, coral destruction, coastal alteration, population pressures in coastal zones, including tourism, and climate change are the main threats reported in the resource booklet which could also be mentioned as the unsustainable consequences of current usage.

Level 5 (36-40 marks)
An essay written in almost faultless English which shows good knowledge, understanding and application of sustainable management of the oceans, using examples from the resource booklet and own knowledge. At level 5, the essay would be well balanced and logically structured.

Level 4 (29-35 marks)
A good essay demonstrating a range of knowledge and understanding of ocean management and sustainable options. Place specific detail for examples is needed. Details of several applications of one "way", e.g. legislation, can be accepted just into Level 4.

Level 3 (21-28 marks)
Begins to develop an argument with a reasonably structured essay style in moderately correct English and incorporates some examples of resources with current management and a brief suggestion of changes that could be undertaken.

Level 2 (13-20 marks)
The answer shows a little development but still limited understanding and no clear examples.

Level 1 (1-12 marks)
Shows a basic understanding of sustainability with reference to one area, or case study of sustainable fishing. The standard of English used is poor.

3   **Using a resource *other than oceans*, evaluate the impacts of habitat loss and environmental damage from both natural and human processes. Use examples at a range of scales.**   **[40]**

The most likely choices will be forests, soils and possibly landscapes. Water supplies could also be included in the construction of reservoirs, and energy

could be used in mining, oil spills etc, while transport issues and the building of roads could also be used. Extreme events from the hazards module can result in natural loss – tectonic, geomorphological, hydrological and atmospheric. (The last three will have been studied to a degree at AS even if not at A2.) The emphasis is expected to be on human activities, however, from settlement, tourism, transport, resource exploitation and agriculture.
By asking for local and global scales, examples should be appropriately chosen to illustrate the answer. (Third Key Idea and Concept.)

Level 5 (36-40 marks)
An essay written in almost faultless English which shows good knowledge, understanding and application of those to habitat loss and environmental damage with examples drawn from several other areas of the specification to demonstrate synthesis. At level 5, the essay would be well balanced and logically structured. Clarity on the resource/s used is required.

Level 4 (29-35 marks)
A good essay demonstrating a range of knowledge and understanding but which may not quite achieve balance between natural and human processes which lead to habitat loss and environmental damage. Place specific detail for examples is needed, and again one scale may be better addressed than the other.

Level 3 (21-28 marks)
Begins to develop an argument with a reasonably structured essay style in moderately correct English and incorporates some examples of habitat loss and environmental damage. Begins to show an element of synopticity.

Level 2 (13-20 marks)
The answer shows a little development but still limited understanding and no examples.

Level 1 (1-12 marks)
Shows a basic understanding of habitat loss and environmental loss with reference to one scale, with simple statements such as 'the environment has been damaged' and some simple examples at either scale. The standard of English used is poor.

Unit Threshold Marks

Unit		Maximum Mark	a	b	c	d	e	u
2687	Raw	90	59	52	45	38	31	0
	UMS	90	72	63	54	45	36	0
2688	Raw	90	70	61	53	45	37	0
	UMS	90	72	63	54	45	36	0
2689	Raw	60	45	40	36	32	28	0
	UMS	120	96	84	72	60	48	0
2690	Raw	90	71	62	54	46	38	0
	UMS	90	72	63	54	45	36	0
2691	Raw	90	68	61	54	48	42	0
	UMS	90	72	63	54	45	36	0
2692	Raw	120	90	81	72	64	56	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
3833	300	240	210	180	180	120	0
7833	600	480	420	360	300	240	0

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

	A	B	C	D	E	U	Total Number of Candidates
3833	22.5	45.3	65.5	80.3	92.0	100	479
7833	21.9	51.9	75.7	91.5	99.0	100	512

For a description of how UMS marks are calculated see;
www.ocr.org.uk/OCR/WebSite/docroot/understand/ums.jsp

Statistics are correct at the time of publication