

Geography Specification B

Advanced GCE A2 7833

Advanced Subsidiary GCE AS 3833

Mark Schemes for the Units

June 2007

3833/7833/MS/R/07

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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.

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Advanced Subsidiary GCE Geography B (3833)

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**Mark Scheme 2687
June 2007**

INSTRUCTIONS ON MARKING SCRIPTS

All page references relate to the Instructions to Examiner booklet (revised June 2006)

For many question papers there will also be subject or paper specific instructions which supplement these general instructions. The paper specific instructions follow these generic ones.

1 Before the Standardisation Meeting

Before the Standardisation Meeting you must mark a selection of at least 10 scripts. The selection should be drawn from several Centres. The preliminary marking should be carried out **in pencil** in strict accordance with the mark scheme. In order to help identify any marking issues which might subsequently be encountered in carrying out your duties, **the marked scripts must be brought to the meeting.** (*Section 5c, page 6*)

2 After the Standardisation Meeting

- a) Scripts must be marked in **red**, including those initially marked in pencil for the Standardisation Meeting.
- b) All scripts must be marked in accordance with the version of the mark scheme agreed at the Standardisation Meeting.
- c) **Annotation of scripts**

The purpose of annotation is to enable examiners to indicate clearly where a mark is earned or why it has not been awarded. Annotation can, therefore, help examiners, checkers, and those remarking scripts to understand how the script has been marked.

Annotation consists of:

- the use of ticks and crosses against responses to show where marks have been earned or not earned;
- the use of specific words or phrases as agreed at standardisation and as contained in the final mark scheme either to confirm why a mark has been earned or indicate why a mark has not been earned (e.g. indicate an omission);
- the use of standard abbreviations e.g. for follow through, special case etc.

Scripts may be returned to Centres. Therefore, any comments should be kept to a minimum and should always be specifically related to the award of a mark or marks and be taken (if appropriate) from statements in the mark scheme. General comments on a candidate's work must be avoided.

Where annotations are put onto the candidates' script evidence, it should normally be recorded in the body of the answer or in the margin immediately adjacent to the point where the decision is made to award or not award the mark.

d) Recording of marking: the scripts

- i) Marked scripts must give a clear indication of how marks have been awarded, as instructed in the mark scheme.
- ii) All numerical marks for responses to part questions should be recorded unringed in the right-hand margin. The total for each question (or, in specified cases, for each page) should be shown as a single ringed mark in the right-hand margin at the end of each question.
- iii) The ringed totals should be transferred to the front page of the script, where they should be totalled.
- iv) Every page of a script on which the candidate has made a response should show evidence that the work has been seen.
- v) Every blank page should be crossed through to indicate that it has been seen. (*Section 8a – d, page 8*)

e) Handling of unexpected answers

The Standardisation Meeting will include a discussion of marking issues, including:

- a full consideration of the mark scheme in the context of achieving a clear and common understanding of the range of acceptable responses and the marks appropriate to them, and comparable marking standards for optional questions;
- the handling of unexpected, yet acceptable answers. (*Section 6a, bullet point 5, page 6*)

There will be times when you may not be clear how the mark scheme should be applied to a particular response. In these circumstances, a telephone call to the Team Leader should produce a speedy resolution to the problem. (*Appendix 5, para 17, page 26*)

Notes for Examiners

The following notes, specific to the “Physical Systems and their Management” module (2687) should be read in conjunction with ‘Instructions to Examiners’ provided by OCR. Please follow all the instructions regarding administration and timing carefully.

Your attention is drawn to the opening statement of Module 2687 in the Specification:

This module is designed to build on studies of physical geography already undertaken at GCSE... It requires a deeper understanding of physical processes... their influence on environments and people’s responses to them.

The questions seek to reflect this in their use of resources and the standard of answers expected.

As Centres are encouraged to select their own case studies within the scale and place requirements of the Specification, Examiners should be prepared to accept a wide range of examples appropriate to the question. This point is further emphasised in the rubric, which states that ‘*credit will be given for sketch maps, diagrams, and examples of places that you have studied, provided that they illustrate your answer*’.

When using the Levels mark scheme, a candidate should be awarded full marks for a level where the requirements have been fully met. The suggestions of possible answers given in the mark scheme are for guidance only and it is not expected that even the best candidates will cover all of the possible points. High quality answers that show good relevant geographical knowledge and understanding should be awarded full marks. This may apply to unforeseen answers. If in doubt do not hesitate to contact your Team Leader.

Where a candidate exceeds a lower level, but does not fully fulfil the requirements of the next level, an intermediate mark should be awarded. Professional judgement should be used where the answer departs from the expected response but is still valid geographically.

Section A

Answer **two** questions.

1 Atmospheric Systems and People.**(a) Study Fig 1. Describe the pattern of weather for Europe.**

- Europe required - not N Africa/Middle East.
- Pattern implies comparative observations rather than just local individual descriptions.
- Generally warmer in south/cooler in west coastal and northern areas
- Windier in west coast - southerly wind.
- Cloud/rain in west with some sunny patches, clearer inland.

Level 3 (8-9 marks)

Detailed comparative observations with a clear regional pattern context. Identifies all major elements of the weather. Clear stress on patterns.

Level 2 (5-7 marks)

Makes some comparative observations about pattern with most elements of the weather considered. Largely a list of comparative figures.

Level 1 (1-4 marks)

Individual observations with simple descriptions, with no real understanding of 'pattern'.

(b) Explain why some parts of the British Isles have higher annual rainfall than others.

- Implies a locational appreciation of basic west/east differences.
- Appreciation of the formulation of cyclonic and relief rainfall.
- Might consider basic west/east division or more localised rain shadow examples.

Level 3 (8-9 marks)

Detailed appreciation of difference in pattern of rainfall with clear reasoning about the influence of westerly winds and relief.

Level 2 (5-7 marks)

Clear appreciation of pattern with general references to the influence of westerly winds and relief or detailed understanding of one factor.

Level 1 (1-4 marks)

Basic descriptive understanding with some observations about patterns and tentative reasons.

- (c) **For a named region of the United Kingdom, explain the management issues concerning water supply.**

Management issues could be about managing supply and demand; managing the movement of water in human/environmental terms or the broader environmental/conflict considerations of changing river regimes (building of reservoirs etc)

Many may focus on drought restrictions e.g. standpipes or supply issues such as repairing pipes etc.

Level 3 (10-12 marks)

Clearly named and located region(s) within the United Kingdom, Thorough descriptive analysis of the issues concerning water supply, identifying supply/demand factors and environmental considerations.

Level 2 (6-9 marks)

Clearly named region(s) with some locational appreciation. Identifies a number of issues concerned with the management of water supply.

Level 1 (1-5 marks)

Max L1 if no named example. Tentative appreciation of place and general observations about managing water supply, limited appreciation of issues.

2 Landform Systems and People.**(a) Describe the relationships shown by Fig 2.**

- Basic hydrograph relationship between precipitation/discharge.
- Appreciation of impact of on-going rainfall in terms of rising discharge levels.
- Some understanding of time lag, falling limb returning to normal flow.
- Use of technical language.

Level 3 (8-9 marks)

Clear description of the graph relating precipitation with discharge throughout. Shows understanding of time-lag, steep rising and falling limb.

Level 2 (5-7 marks)

Identifies clear links between precipitation and discharge across the graph. Limited depth of understanding about rising/falling limb and time lag. Some use of technical language.

Level 1 (1-4 marks)

Identifies basic relationship between precipitation/discharge with tentative appreciation of changes across the graph. Limited use of technical ideas.

(b) Explain the relationship between precipitation and discharge shown in Fig 2.

- Explains the growth of discharge across the graph and the link to precipitation e.g. more rain = higher discharge.
- Identifies time-lag with reasons for differences (could be human/physical) in time lag.
- Some understanding of shape of rising/falling limb, with reasons.

Level 3 (8-9 marks)

Clear understanding of why discharge is increasing and reasoned appreciation of time lag and shape of rising/falling limb.

Level 2 (5-7 marks)

Shows an appreciation of why discharge is increasing. Some understanding of why time lags exist with possible reasons. Limited appreciation of the reasons for the shape of the rising/falling limb.

Max level 2 if generic not related to Figure 2.

Level 1 (1-4 marks)

Some reasoning for the build up of the discharge across the graph. Tentative points about either the time lag or the shape of the rising/falling limb.

(c) Describe and explain the human factors influence the rate of discharge in one or more named rivers.

- Can be at a small or large scale.
- Human factors can be direct - through engineering a river or river system or indirect - through factors such as agriculture, deforestation or building in catchments.
- Many may see this as flood control.
- Higher level answers will focus on clear cause-effect on discharge.

Level 3 (10-12 marks)

Detailed use of example(s) with clear reasons how a range of human factors have influenced discharge. Shows a thorough understanding about the causal link between human influence and rate of discharge.

Level 2 (6-9 marks)

Uses an example(s) to describe how human influences have changed river flows or discharge. Sound description with some analytical observations to explain the relationship. May be an overemphasis on flood prevention at this level.

Level 1 (1-5 marks)

Max L1 if no named examples.

Basic understanding about how people change/interfere with volume of flow in rivers. Tentative appreciation of the link - largely descriptive.

3 Coastal Systems and People.

(a) Study Fig 3. Annotate the outline sketch below to identify the different types of coastal management.

- Coastal management can be considered in its broadest context; it could include sea defences, recreation management, transport management (parking, roadways, walkways).
- Most will confuse types with features – higher level responses may seek to distinguish types of features e.g. soft engineering.
- If the specific names (technical terminology) are not included be aware of the strength of the description identifying the feature.
- Be sympathetic to features that are not always clearly shown on the photograph if they are identified.
- Must be annotated – beware of the use of the space below the diagram used for extended text.

Level 3 (8-9 marks)

Clear understanding about what constitutes management with a range of identified types of examples. Appreciation of how they manage which clarifies their use.

Level 2 (5-7 marks)

Identifies a number of management strategies (3/4) and illustrates why they are management strategies.

Level 1 (1-4 marks)

Probably single word repetitive identification or describes ways that the area has been changed with only tentative appreciation of management.

(b) Explain the issues associated with the extraction of sand and gravel in coastal areas.

- 'issues' may be local small scale e.g. Hall sands
- Larger scale might look at sediment cells
- Extraction may be offshore or from the beach
- Some idea that extraction at one place may impact elsewhere is expected at the higher level
- Other issues could include impact on ecosystems, tourism, pollution, costs etc

Level 3 (8-9 marks)

Clear understanding which identifies the potential impact on the local area as well as broader (sediment cell) impacts.

Level 2 (5-7 marks)

Developed ideas about changing systems and how gravel extraction might affect marine erosion or ecosystems. Some cause-effect explained but descriptive rather more than explanatory. Many may focus on a single case study e.g. Hall sands.

Level 1 (1-4 marks)

Basic descriptive points which show a tentative appreciation of coastal systems. Largely generic and simplistic ideas.

- (c) For a sediment cell on a named coastline, explain how the movement of beach material has created distinctive depositional features.

This could include:

- spits (longshore movement)
- bars (onshore movement)
- beaches (both) - including dunes, ridges, cusps
- features could be at a variety of scales e.g. cusps v spits
- 'Movement' could include processes other than the sea e.g. wind.
- Be wary of locational errors (can't get to top level if wrongly located)

Level 3 (10-12 marks)

Clearly located example of coastline with detailed explanation of both movement and deposition in the formation of depositional features.

Level 2 (6-9 marks)

Located examples with explanation of both movement and deposition with some detail or single feature case study e.g. Hurst Castle Spit

Level 1 (1-5 marks)

Max L1 if no named example or no explanation

Simple descriptive observations about a depositional feature(s), limited, if any, appreciation of process.

Section B

Answer **one** question.

Either

- 4 Consider the view that people can have a significant impact on physical systems. Illustrate your answer with reference to at least two different physical systems.**

Indicative:

- atmospheric systems could include micro-climates, air quality, global warming or local scale such as smog, frost, wind channel
- river system could include impact on hydrological cycle, channel alteration, drainage basin modification etc for flood prevention, water supply management, channel management etc
- coastal systems could include coastal defences, coastal extraction of material, port building, impact of tourism e.g. on dunes, management of wetlands etc
- Impacts may be planned or accidental, positive or negative, large or small scale and may vary over time.

Level 5 (27-30 marks)

A detailed, well-structured, logical and balanced essay with a detailed evaluation and understanding of how human activity impacts on physical systems with good exemplification from different areas of study. Some appreciation that the significance is often dynamic or that it varies with scale could be expected at this level. Uses appropriate terminology.

Level 4 (21-26 marks)

An effective essay that shows a good understanding of how human activity impacts on physical systems with exemplification from different areas of study, and has specific place knowledge. Explanation is effective and clear on cause-effect relationships and attempts to evaluate the significance.

The answer is well organised.

Level 3 (15-20 marks)

A clear understanding and reasonable use of appropriate terminology. Clear understanding of cause-effect but may lack balance between human activity and physical system. Some evidence of structure but limited conclusions.

Max level 3 if only one physical system referred to

Level 2 (9-14 marks)

Some explanation with limited knowledge or understanding of relevant connections or cause-effect. A simplistic, over-descriptive approach. Some structure but the answer lacks a clear focus on the question.

Level 1 (1-8 marks)

Limited or vague and incomplete explanation or basic description of the impacts. Very little understanding of cause-effect with very limited geographical knowledge, or examples. Poor structure with obtrusive errors.

5 Consider the view that weather and climate can play a significant part in the formation of landforms.

Indicative:

Clear understanding of role of weather and climate impact on processes – both short term e.g. storms and long term e.g. global warming.

Clear linkage to the formation of specific landforms – could be river &/or coastal landforms.

Higher level answers will focus on the variability of ‘significant’ – varying with type of weather, type and scale of landform and other factors such as structure.

Level 5 (27-30 marks)

A detailed, well-structured, logical and balanced essay with a detailed evaluation and understanding of the role weather/climate impacts on landforms with good exemplification from different areas of study. Some appreciation that the significance is often dynamic or that it varies with scale could be expected at this level. Uses appropriate terminology.

Level 4 (21-26 marks)

An effective essay that shows a good understanding of the role weather/climate impacts on landforms with exemplification from different areas of study, and has specific place knowledge. Explanation is effective and clear on cause-effect relationships and attempts to evaluate the significance.

The answer is well organised.

Level 3 (15-20 marks)

A clear understanding and reasonable use of appropriate terminology. Clear understanding of cause-effect but may lack balance between weather and landform formation. Some evidence of structure but limited conclusions.

Max level 3 if no exemplification.

Level 2 (9-14 marks)

Some explanation with limited knowledge or understanding of relevant connections or cause-effect. A simplistic, over-descriptive approach. Some structure but the answer lacks a clear focus on the question.

Level 1 (1-8 marks)

Limited or vague and incomplete explanation or basic description of the impacts. Very little understanding of cause-effect with very limited geographical knowledge, or examples. Poor structure with obtrusive errors.

Mark Scheme 2688
June 2007

- 1 (a) *Describe the pattern of BMW car plants in Fig. 1* [9]

Candidates may mention:

- High concentration in Europe (especially Germany) and SE Asia
- None in Russia, China, India Eurasian block
- Most R&D in USA, also Germany and Japan
- Assembly only in SE Asia and Mexico
- Most manufacturing and assembly in Europe including UK
- More isolated manufacturing and assembly in USA, Brazil and South Africa
- Reference to area/country MEDC, LEDC, NIC or RIC status

Level 3 (8-9 marks)

Extensive description noting concentrations and status of area(s)
Differentiation of extent of area of different types of plant
Sound knowledge of world regions/countries

Level 2 (5-7 marks)

Sound description but some plants/status of area not included
Some mention of different types of plant but moderate comment on distribution
Most world regions/countries accurate, but either incomplete or with several inaccuracies

Level 1 (1-4 marks)

Some description but several plants/areas not included
May not differentiate between types of plant or make no distribution comment on them
Weak knowledge of world regions, few names or numerous inaccuracies

- 1 (b) *Explain why Transnational Corporations (TNCs) may often locate assembly, research and development, and marketing in different regions of the world.* [9]

Candidates may mention:

- Assembly mainly drawn to areas of mass labour but with some skill
- Research and development in areas with well established universities and expertise
- Marketing in areas of large populations with high disposable incomes
- Transport now relatively cheap, fast and efficient
- Current information technology allows remote, co-ordinated management

Level 3 (8-9 marks)

Demonstrates different requirements of branches of TNC
Explains link between requirements and different kinds of economy
Exemplifies this through an industry, a TNC, a variety of appropriate countries or types of economy

Level 2 (5-7 marks)

Shows requirements of some aspects of overall operation but either unbalanced or incomplete
Some explanation given, but with either gaps or more superficial if complete
Some sound exemplification but clear gaps or lack of full detail

Level 1 (1-4 marks)

Some requirement shown but limited to one aspect or very superficial
Explanation very limited, missing or misguided
Little if any valid exemplification

- 1 (c) *For one or more examples that you have studied, explain the benefits and problems of reclaiming derelict land.* [12]

Candidates may mention:

- Saves using greenfield sites
- In areas with links to other industries and established infrastructure
- Derelict areas usually have high unemployment, provides work
- Sites often contaminated, difficult and costly to clean
- Often in centres of urban areas, too congested for modern transport
- Often in areas with only old and unskilled workforce available

Level 3 (10-12 marks)

Covers a range of benefits and problems in some detail
Explanation of most aspects mentioned clear and sound
Good place specific exemplification

Level 2 (6-9 marks)

Focus on either benefits or problems, more restricted if both
Some sound explanation but either with gaps or partly superficial
Some exemplification but either incomplete or lacking detail

Level 1 (1-5 marks)

Brief on benefits and/or problems
Explanation weak by being very restricted or too superficial
Little if any exemplification, any given is very general

- 2 (a) *Use the photographs in Fig. 2 to help suggest what issues may be faced when planning to develop each of the areas shown.*

[9]

Candidates may mention:

- Flats have full facilities and are modern for residents
- but need plans for play areas, difficulties with lifts, vandalism/intimidation
- Planners may have difficulties with maintenance, problem residents
- but have space to house otherwise homeless, many homes in limited area
- Terraced housing close to road, lack gardens, may lack facilities
- but often have close-knit supportive communities, lived there a long time
- Planners unlikely to own them, difficult to encourage upgrading/improvement
- but home ownership/private renting takes people off housing lists

Level 3 (8-9 marks)

Well balanced between flats/houses, range of issues or one in depth for each
Identifies features from the resource as basis for discussion
Detail good or illustration given from examples

Level 2 (5-7 marks)

Some imbalance but most aspects covered to some degree
Valid points raised but few starting points taken from resource
Not fully detailed or superficial illustration from examples

Level 1 (1-4 marks)

Only one aspect considered or very unbalanced leaving large gaps
Points raised not strongly relevant to resource provided
Limited detail or inappropriate illustration from examples

- 2 (b) *Suggest how technological change might have an impact on settlements.* [9]

Candidates may mention:

- A great deal of scope, quite different answers can achieve high credit
- Transport – road/rail, may take commuting, counter-urbanisation route
- Transport – out of town retail/business development, inner area contrasts
- Information technologies – increase in working from home, new residential possibilities
- Information technologies – details of video conferencing, speed & range of communication
- Ease of water/electricity/gas transport – settlements possible in inhospitable situations
- New technologies/industry and impact on LEDC/NIC cities

Level 3 (8-9 marks)

Technological change clearly linked to impact on settlement
Explanation very clear with good understanding
Examples of either technological change or place are soundly detailed (credit well if both detailed)

Level 2 (5-7 marks)

Technological change and impact mentioned, link not fully clear
Some sound explanation, but either superficial in places or incomplete
Some exemplification but only partially detailed

Level 1 (1-4 marks)

Technological change or impact missing, or very superficial if both given
 Only very partial explanation, with large gaps or superficial throughout
 Exemplification weak or missing on both technology and impact

- 2 (c) *With reference to one or more examples that you have studied, explain how both individuals and authorities might improve housing conditions in LEDCs.*

[12]

Candidates may mention:

- Starting point likely to be informal settlements, but credit alternative approaches
- May give examples from self help, site & services, new build from LEDCs
- Finance schemes, provision of materials, co-operatives
- May be replacement or additional housing, 'new towns'
- May have separate individual/authority solutions or joint working

Level 3 (10-12 marks)

Responses of both individuals and authorities covered
 Clear explanation related well to clear housing difficulties
 Good place specific references in support

Level 2 (6-9 marks)

Good detail on either individuals or authorities, unbalanced or less detailed on both
 Some explanation but with gaps or housing difficulty unclear
 May be generically sound with some mention of real places

Level 1 (1-5 marks)

May neglect either individuals or authorities or be very thin on both
 Explanation unclear or superficial
 May be relevant in simple way but over simplistic and not grounded in real places

- 3 (a) *Use Figs 3a and 3b to describe how well current levels of development are a guide to present and projected fertility levels.* [9]

Candidates may mention:

- Current development a good indicator of present fertility
- Current high development closely linked with low fertility
- Less good fit for 2030
- A reversal as an indicator for 2080 in some countries and a poor indicator overall
- Overall decline in fertility irrespective of current level of development

Level 3 (8-9 marks)

Good discussion of HDI linked with 2000, 2030 and 2080 fertility
 Clear statements related to 'how well' HDI acts as guide
 Sound reference to figures from table and graph

Level 2 (5-7 marks)

May focus on present or future, or more superficial if both equally weighted
 Some discussion of 'how well' but not the main focus of most of the answer
 Some use table and graph in support

Level 1 (1-4 marks)

Some isolated links identified but overall patterns missing
 'How well' largely overlooked in links identified
 Little if any extraction of data from the resource

- 3 (b) *Explain why mortality rates are declining in most regions of the world.* [9]

Candidates may mention:

- Improvements of medical technology
- Relative reduction in cost of medical technology/sanitation
- Better medical provision reducing IMR
- Better/easier methods of sanitation
- Government policies
- Education and knowledge

Level 3 (8-9 marks)

A wide range of reasons examined
 Explanations clear and full
 Either very good generic regions (LEDC/MEDC/NIC) detail or sound place specifics

Level 2 (5-7 marks)

Some reasons presented – very narrow range or superficial wider
 Explanation sound in places but either not all clear or with obvious gaps
 Some generic detail or place references

Level 1 (1-4 marks)

Some weakly presented reasons – may be little more than headings
 Explanation either very restricted or thin overall
 Little if any exemplification given

- 3 (c) *For one or more countries that you have studied, explain why policies are needed to manage population change.* [12]

Candidates may mention:

- Very wide range of approaches possible – credit detail of policy and its necessity
- LEDC context to increase life expectancy, lower birth and/or death rates, reduce IMR
- Increase number and efficiency of workforce, encourage smaller families
- Educated workforce can earn more, educated population has lower birth rate
- MEDC context increasing numbers of elderly – need to tailor health care to diseases of old age
- Need to encourage birth rate and immigration
- Need education to be extended upward in age to maintain competitive edge
- May take line of reasoning related to development
- Individual country circumstances equally valid

Level 3 (10-12 marks)

Clear detail of policies on population, and circumstances intended to be dealt with
Clear and full explanation
Good place specific detail

Level 2 (6-9 marks)

Sound on either population policies or circumstances, or only moderate on both
Some explanation but either good but incomplete or lacking full clarity
Some sound place reference but not for a full range of points

Level 1 (1-5 marks)

May deal only with population policies or circumstances, or be quite superficial on both
Explanation very restricted or quite unclear overall
Little if any place reference – any given little beyond place name

- 4 *'New technologies are the main reason for changing employment opportunities throughout the world.'*
To what extent do you agree with this statement? [30]

Candidates may mention:

- Information technologies allow many service activities to take place almost anywhere
- Manufacturing can spread through remote management, cheap transport to markets
- Many changes in location are related to variations in the cost of similarly skilled labour
- Some changes are related to government restrictions/regulations, incentives/support
- Modern processing methods allow establishment in new locations

Level 5 (27-30 marks)

Clear discussion of a range of employment changes related to range of new technologies
 Exemplification in place specific detail sufficient to support variation of extent
 Arguments balanced, reasoned with good logical ordering
 There is a very good attempt to summarise or reach a conclusion
 English expression is sound and clear in most places

Level 4 (22-26 marks)

Good discussion of employment changes mostly linked to new technologies
 Sound exemplification with good detail with clear attempt at extent
 Arguments balanced, but not all sides equally well or full
 There is a sound attempt to summarise or reach a conclusion
 Only minor lapses in English expression

Level 3 (16-21 marks)

Employment changes and new technologies clear but linkage not fully clear
 Some exemplification but support partial or thinner if more balanced
 Tendency to argue one line but some evidence of extent
 Some attempt to summarise or reach a conclusion
 English is generally good, although there may be some weak sections

Level 2 (9-15 marks)

Limited employment changes weakly linked to new technologies
 Exemplification weak and insufficient to support balance
 Attempts to reason and argue but with little evidence of extent
 Very weak attempt to summarise or reach a conclusion
 English is often awkward but some sound expression in places

Level 1 (1-8 marks)

Poor coverage of both employment changes and new technologies with any linkage unclear
 Exemplification missing or too simple to give real support or any balance
 Very simple reasoning with no discussion of extent
 Little or no attempt to summarise or reach a conclusion
 English is very simple with little sound expression

- 5 *'Urban growth inevitably causes change in rural areas.'*
How far do you agree?

[30]

Candidates may mention:

- May take core/periphery route and argue both ways
- Examples of relatively prosperous cities at expense lagging rural areas
- Cases of spread of wealth and development out to growth poles
- Relative rural prosperity supporting urbanised centres
- This can be seen as a stage in the 'normal' process of development

Level 5 (27-30 marks)

Clear discussion of urban growth related to a variety of rural experiences
Exemplification in place specific detail sufficient to support variation of extent/inevitability
Arguments balanced, reasoned with good logical ordering
There is a very good attempt to summarise or reach a conclusion
English expression is sound and clear in most places

Level 4 (22-26 marks)

Good discussion of urban growth mostly linked to rural experience
Sound exemplification with good detail with clear attempt at extent/inevitability
Arguments balanced, but not all sides equally well or full
There is a sound attempt to summarise or reach a conclusion
Only minor lapses in English expression

Level 3 (16-21 marks)

Urban growth and rural experience clear but linkage not fully clear
Some exemplification but support partial or thinner if more balanced
Tendency to argue one line but some evidence of extent/inevitability
Some attempt to summarise or reach a conclusion
English is generally good, although there may be some weak sections

Level 2 (9-15 marks)

Limited on urban growth weakly linked to rural situations
Exemplification weak and insufficient to support balance
Attempts to reason and argue but with little evidence of extent/inevitability
Very weak attempt to summarise or reach a conclusion
English is often awkward but some sound expression in places

Level 1 (1-8 marks)

Poor coverage of both urban growth and rural prosperity with any linkage unclear
Exemplification missing or too simple to give real support or any balance
Very simple reasoning with no discussion of extent/inevitability
Little or no attempt to summarise or reach a conclusion
English is very simple with little sound expression

Assessment Objectives

June 2007

Question		AO1 Knowledge	AO2 Understanding	AO3 Application	AO4 Skills	Total
1	(a)	2	1	3	3	9
	(b)	3	2	1	3	9
	(c)	5	2	1	4	12
2	(a)	2	1	3	3	9
	(b)	3	2	1	3	9
	(c)	5	2	1	4	12
3	(a)	2	1	3	3	9
	(b)	3	2	1	3	9
	(c)	5	2	1	4	12
4		10	5	5	10	30
5		10	5	5	10	30
Total		30	15	15	30	90

**Mark Scheme 2689
June 2007**

Notes for Examiners

[Same as given on Specimen Materials.]

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.

POST STANDARDISATION

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		
	L1	L2	L3
Hypothesis, design and presentation	1	2-3	4
Data collection and outcomes	1-4	5-7	8-9
Evaluation and understanding	1-2	3-5	6-7

Overall marks available for each level	
Level	Marks
1	1-7
2	8-15
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 Describe and justify how you could have improved one or more procedures for collecting data.

Indicative content:

- Better planning beforehand, e.g. visit to site, pilot study.
- Pre-testing equipment to save time in the field.
- Better co-operation between group collecting data.
- Different distribution of tasks between members of group.
- Different order for collecting variables.
- Sample size and location
- Measurement of variables, e.g. physical measurements, interviews.
- More variables (simple response).
- More than one site.
- More than one occasion.

NB: accept what was wrong as part of the justification.

The following content is applied to each level:

- The discussion relates to the personal enquiry.
- The relevance of the improvements.
- The way the improvements would assist with data collection.

Level 5 (18-20 marks)

Either One or more improvements are discussed **well**.

Or More improvements are discussed in less depth.

The answer is logically ordered and well presented.

Level 4 (14-17 marks)

Either One or more improvements are discussed **quite well**.

Or More improvements are discussed in less depth.

The answer is generally logically ordered and well presented.

Level 3 (9-13 marks)

Either One or more improvements are discussed **moderately well**.

Or More improvements 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 are improvements discussed **adequately**

Or More improvements are discussed in less depth.

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

Level 1 (1-4 marks)

One or more improvements are discussed in a basic manner.

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

2 Justify the use of maps in your Investigation. Refer to how they were used to plan the Investigation and to present data that was collected.

Indicative content:

- Scale(s) identified.
- Source of map identified.
- Ease of obtaining map.
- Planning:
 - Selection of sites for sampling.
 - Access to sites.
- Showing data:
 - Study area context, e.g. relationship to adjoining settlements, human and physical geographical influences.
 - Data collection sites.
 - Located graphs, e.g. bar charts, pie charts.
 - Calculation of distances, e.g. NNA.
 - Plotting data, e.g. land use, services use, distribution of variables (e.g. services), spheres of influence, isopleths, flow lines.
- Assist with understanding background theory and selection of hypotheses.

The following content is applied to each level:

- The discussion relates to the personal enquiry.
- The relevance of the maps to the Investigation.
- The way in which the maps were used.
- The balance between the 2 parts of the response.

Level 5 (18-20 marks)

Planning the Investigation **and** showing the data collected are discussed well.

The answer is logically ordered and well presented.

Level 4 (14-17 marks)

Either Planning the Investigation **and** showing the data collected are discussed **quite well**.

Or **One** part of answer discussed **well** and **other** in **less depth**.

The answer is generally logically ordered and well presented.

Level 3 (9-13 marks)

Either Planning the Investigation **and** showing the data collected are discussed **moderately well**.

Or **One** part of answer discussed **quite well** and **other** in **less depth**.

Or **One** part of answer discussed **well** and **other omitted**.

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

Level 2 (5-8 marks)

Planning the Investigation **and** showing the data collected are discussed **adequately**.

Or **One** part of answer discussed **moderately well** and **other** in **less depth**.

Or **One** part of answer discussed **well** and **other omitted**.

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

Level 1 (1-4 marks)

Planning the Investigation and showing the data collected are **discussed in a basic manner**.

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

3 It is often advantageous to collect data on more than one occasion.

***Either:* If you collected data on more than one occasion, in what ways did it improve your investigation?**

***Or:* If you did not collect data on more than one occasion, in what ways would collecting data more than once have improved your investigation?**

Indicative content: Leads to improvement:

- Temporal variations due to human impact: time of day, day of week, season, holidays.
- Temporal variations due to physical impact: season (temperature, precipitation, wind), lunar cycle, diurnal, non seasonal fluctuations in weather (drought, storm, high and low pressure).
- Locational variations: more than one physical (e.g. river, sand dune, climate transect) or human (e.g. settlement, land use transect) study location.
- Repeat measurement for any of the above variations: assess patterns, anomalies and fitting with geographical theory.
- Revised procedures lead to improved results.
- New sites increase dataset and allow comparison.

NB: not a pilot as this is not repeat data collection.

The following content is applied to each level:

- The discussion relates to the personal enquiry.
- The relevance of the advantages to the personal enquiry.
- The understanding of why data should be collected on more than one occasion.

Level 5 (18-20 marks)

***Either* Two or more** aspects of collecting data on more than one occasion are discussed **well**.

***Or* More** aspects of collecting data on more than one occasion are discussed **in less depth**.

The answer is logically ordered and well presented.

Level 4 (14-17 marks)

***Either* Two or more** aspects of collecting data on more than one occasion are discussed **quite well**.

***Or* More** aspects of collecting data on more than one occasion 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 collecting data on more than one occasion are discussed **moderately well**.

***Or* More** aspects of collecting data on more than one occasion 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** collecting data on more than one occasion are discussed **adequately**.

***Or* More** aspects of collecting data on more than one occasion are discussed **in less depth**.

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

Level 1 (1-4 marks)

One or more aspects of collecting data on more than one occasion are discussed **in a basic manner**.

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

4 Study Fig. 1 which shows six possible sites for collecting data along a small river which is 7 km long.

- (a) Suggest and justify two variables that you would sample in order to determine the changing channel characteristics along this river.
- (b) With reference to Fig. 1, what factors would you take into account when planning and carrying out data collection along this river?

Indicative content:

(a) Selection of variables:

- Valid approaches to justification in terms of
 - Geographical theory.
 - Practicalities of measurement, e.g. easy to measure (not how it was measured).
 - Feasibility of further data analysis and calculating other variables.
- ↑ width, depth, velocity, cross sectional area, wetted perimeter.
- ↓ gradient, hydraulic radius, suspended particle size, deposited particle size, Manning.
- Chemical composition, biological composition, turbidity and geology.

The following content is applied to each level:

- The discussion is relevant to the figure.
- The justification of the variables to show they are affected by distance downstream.

(a) **Level 3 (7-8 marks)**

Two variables are justified **well**.

The answer is logically ordered and well presented.

Level 2 (4-6 marks)

Either **Two** variables are justified moderately **well**.

Or **One** variable is justified **well** and the **other** variable **adequately**.

Or **One** variable is justified **well** and the **other not at all**: Max. 4.

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

Level 1 (1-3 marks)

One or two variables are described (not justified) **in a basic manner**.

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

- (b) Factors affecting planning and carrying out data collection (there is no need to refer to all sites to obtain full marks):
- Accessibility: legal and physical (distance to walk with equipment, terrain, fences) barriers, bridges.
 - Sampling methodology and size.
 - Resources available, e.g. personnel, time, equipment.
 - Procedures for measuring data.
 - Ability to use equipment.
 - The selection of the sites, e.g. would the 6 shown be adequate enough; they are at uneven distances and show very different characteristics, which may not be enough to show overall expected changes downstream.
 - Time of year.
 - Mark sites if taking repeat observations.
 - Pilot.
 - Testing of equipment.
 - Personal safety.
 - Weather.
 - Simpler responses: the requirements for collecting the variables; how it affects the results.

The following content is applied to each level:

- The discussion refers to the figure.
- The impact of physical and human factors on planning and carrying out data collection.

(b) **Level 3 (10-12 marks)**

Planning and carrying out data collection are discussed **well**.

Good reference to Fig. 1.

The answer is logically ordered and well presented.

Level 2 (6-9 marks)

Either Planning **and** carrying out data collection are discussed moderately **well**.

Or One part of the answer is carried out **well and** the **other** part **adequately**.

Some reference to Fig. 1.

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

Level 1 (1-5 marks)

Planning **and/or** carrying out data collection are discussed **in a basic manner**.

Unlikely to refer to Fig. 1.

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

**Mark Scheme 2691
June 2007**

INSTRUCTIONS ON MARKING SCRIPTS

All page references relate to the Instructions to Examiner booklet (revised June 2006)

For many question papers there will also be subject or paper specific instructions which supplement these general instructions. The paper specific instructions follow these generic ones.

1 Before the Standardisation Meeting

Before the Standardisation Meeting you must mark a selection of at least 10 scripts. The selection should be drawn from several Centres. The preliminary marking should be carried out **in pencil** in strict accordance with the mark scheme. In order to help identify any marking issues which might subsequently be encountered in carrying out your duties, **the marked scripts must be brought to the meeting.** (*Section 5c, page 6*)

2 After the Standardisation Meeting

- a) Scripts must be marked in **red**, including those initially marked in pencil for the Standardisation Meeting.
- b) All scripts must be marked in accordance with the version of the mark scheme agreed at the Standardisation Meeting.
- c) **Annotation of scripts**

The purpose of annotation is to enable examiners to indicate clearly where a mark is earned or why it has not been awarded. Annotation can, therefore, help examiners, checkers, and those remarking scripts to understand how the script has been marked.

Annotation consists of:

- the use of ticks and crosses against responses to show where marks have been earned or not earned;
- the use of specific words or phrases as agreed at standardisation and as contained in the final mark scheme either to confirm why a mark has been earned or indicate why a mark has not been earned (e.g. indicate an omission);
- the use of standard abbreviations e.g. for follow through, special case etc.

Scripts may be returned to Centres. Therefore, any comments should be kept to a minimum and should always be specifically related to the award of a mark or marks and be taken (if appropriate) from statements in the mark scheme. General comments on a candidate's work must be avoided.

Where annotations are put onto the candidates' script evidence, it should normally be recorded in the body of the answer or in the margin immediately adjacent to the point where the decision is made to award or not award the mark.

d) Recording of marking: the scripts

- i) Marked scripts must give a clear indication of how marks have been awarded, as instructed in the mark scheme.
- ii) All numerical marks for responses to part questions should be recorded unringed in the right-hand margin. The total for each question (or, in specified cases, for each page) should be shown as a single ringed mark in the right-hand margin at the end of each question.
- iii) The ringed totals should be transferred to the front page of the script, where they should be totalled.
- iv) Every page of a script on which the candidate has made a response should show evidence that the work has been seen.
- v) Every blank page should be crossed through to indicate that it has been seen. (*Section 8a – d, page 8*)

e) Handling of unexpected answers

The Standardisation Meeting will include a discussion of marking issues, including:

- a full consideration of the mark scheme in the context of achieving a clear and common understanding of the range of acceptable responses and the marks appropriate to them, and comparable marking standards for optional questions;
- the handling of unexpected, yet acceptable answers. (*Section 6a, bullet point 5, page 6*)

There will be times when you may not be clear how the mark scheme should be applied to a particular response. In these circumstances, a telephone call to the Team Leader should produce a speedy resolution to the problem. (*Appendix 5, para 17, page 26*)

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'.

GENERIC LEVELS**Part (A) Questions****Level 5 (18-20)**

Uses the resource effectively by identifying the 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.

Part (B) Questions**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.

- 1 (a)
- Resource suggests that New Zealand is prone to a range of natural hazards - detailed use of resource Level 3.
 - Expect either a generalised account identifying a number of places/hazards or more specific locational links (tectonic hazards/plate boundaries etc).
 - A very wide question - might lead to ideas linked to population pressures/locations and a range of other ideas.

Level 4/5 goes beyond resource and offers some locational context with reasoning which could be based on process or human links.

- (b) (i)
- Same types does not mean the same power/strength.
 - Location may be a factor - highly populated/unpopulated areas.
 - LEDC/MEDC differences will be self evident.
 - Other factors such as planning, preparation etc may come into play.

Level 4/5 Uses exemplars to go beyond the simple LEDC/MEDC debate to identify other factors.

- (ii) Either tectonic or hydrological hazards. Using both will probably be self-penalising.
- Management can occur at different levels, including acceptance, adaptation and domination.
 - Understanding of process may be more significant in relation to particular types of management.
 - Acceptance may require less understanding of process.
 - Understanding of potential impact is also important in relation to management.

Level 4/5 Goes beyond simple acceptance of the statement to discuss broader aspects of management and brings in other points.

- 2 (a)
- Human activity can be wide ranging and include:
 - business
 - leisure
 - day to day activities.
 - Resource highlights a number of points including extremes of heat in relation to a range of human activities.
 - Other extreme hazards might include floods, storms, drought or even fog, ice etc.
 - Impacts can be positive as well as negative.

Level 4/5 goes beyond resource to identify a broad range of extreme events and links them to human activity.

- (b) (i)
- Balance between natural influences and human influences does not need to be even.
 - Natural influences might include Ocean oscillation, El Nino or volcanic activity.
 - Human influences may focus on pollution, deforestation, agricultural development etc.
 - Some appreciation of how climatic change happens.

Level 4/5 Brings in both human and natural links to eliminate change and begins to make relative judgements.

- (ii)
- Clear understanding about the international nature of pollution and how it needs a broader range of management.
 - Some appreciation of international environmental conferences and the debate within them.
 - Evaluative observations concerning international agreements.

Level 4/5 Clear understanding about the nature of international agreements and some tentative evaluative points.

3 (a) Question demands both identification and description.

- Range of features associated with highland glaciation, including:
 - aretes
 - corries/tarns
 - hanging valley
 - 'U' shaped valley
 - straightened valley
 - ribbon lakes.
- Description will be largely concerned with the impact of erosion and movement.

Level 4/5 Clear identification of features and explanation. Well linked to the resource.

(b) (i) 'Challenges for development' can be in broad terms or in more specific terms (building etc).

- Shows and understanding of what is meant by permafrost.
- General infrastructural challenges might include:
 - building/maintenance of roads/services
 - supply of materials/dealing with waste.
- Specific challenges might include house/general building etc.
- Human challenges might be attracting people, keeping social, human wellbeing levels high.

Level 4/5 'Challenges' seen in a broad way with a number of specific ideas clearly linked to the conditions.

- (ii)
- Examples can be wide ranging although are likely to focus on winter sports areas.
 - Fragile nature of the environment considered.
 - Environmental impacts can be wide ranging and might include - damage to flora/fauna/land-use change/general pollution problems/ changes to slope leading to slope failure etc.
 - Sustainable management strategies might help to reduce the negative impacts.
 - 'Impacts' can be positive - might help to preserve areas.

Level 4/5 Clear appreciation of how fragile these areas are and uses examples to express a range of impacts.

- 4 (a)
- Clear understanding about the nature of tropical forest environments.
 - Some appreciation of how the 'rules' might help to ensure the sustainability of tropical rain forests.
 - Consideration of the individual points and how they might help to preserve forests.
 - Consideration of how the whole package of actions might work together to preserve rain forests.

Level 4/5 Clear understanding of the fragility of the forest and how the points directly relate to the nature of the ecosystem.

- (b) (i)
- Nature of an ecosystem and how each individual component is significant.
 - Descriptive understanding of a rain-forest ecosystem.
 - Impact of change on any part of the ecosystem.
 - Why tropical rain forests are under threat.
 - Effect of human interaction.

Level 4/5 Clear understanding about the nature of the ecosystem and how changes can make it very vulnerable.

- (ii)
- 'Large scale' implies planning, often at governmental level or by large companies.
- 'Exploitative' suggests a lack of sustainable management.
 - The nature of tropical environments suggests a fragility.
 - Often large scale developments are about short-term goals.
 - 'Often' suggests not always - idea of sustainability.
 - Recent history suggests that human impacts are often negative in tropical areas.
 - Both mining and agriculture require large areas of land and are often concerned with clearing/changing landscapes.

DETAILED USE OF AGRICULTURAL OR MINING DEVELOPMENTS CAN REACH TOP OF LEVEL 4.

Level 4/5 Clear appreciation about the fragility of tropical environments and how large scale developments often change ecosystems. Some tentative discussion around the idea of 'often' in relation to sustainability.

- 5 (a) Focus must be 'availability in MEDCs'. This can include supply factors from LEDCs.
- Physical factors can include ideas about seasonality, the link between certain crops and climate etc.
 - Economic factors may be concerned with price and the flexibility of demand in response to price, market factors.
 - Technological factors might include transport, methods of production and preservation.

Level 4/5 Begins to consider the idea of a complex mixture beyond descriptions of individual points/factors.

- (b) (i) Agricultural production is about:
- Physical factors - climate/soil/slope etc
 - Economic factors - price/costs/global sourcing/trade/power of business
 - Political factors - government decisions/relationships/trade
 - Individual factors - choice/tastes
 - Agriculture production is often a balance between factors - not always an equal balance.

Level 4/5 Illustrates the different factors that play a part in the production of food/agricultural raw materials. Begins to consider the relative importance of different factors.

- (ii)
- Overnutrition is an increasing problem in many parts of the world.
 - Health issues are associated with the wrong types of food as well as volumes of food.
 - Undernutrition is a fundamental problem in the poorest countries - especially sub-Saharan Africa.
 - Links to ongoing health/development issues in relation to both over and undernutrition.
 - Undernutrition often holds back development.
 - Overnutrition increases health spending/reduces efficiency.

Level 4/5 Clear locational understanding of both over and undernutrition. Begins to consider relative importance through links to development. Increasingly sound locational perspective.

- 6 (a)** Problems of the urban poor are varied, and include:
- living conditions
 - access to services
 - lack of employment/or low incomes
 - threat of crime
 - lack of security.
- The resource illustrates some of these points and focuses on the urban poor as an 'underclass'.

Level 4/5 Identifies the problems from the resource and also considers broader ideas by using other examples.

- (b) (i)**
- Focus could be LEDC or MEDC.
 - Involving local people can occur in a variety of ways.
 - Concept of sustainability important. Included here could be ideas about:
 - housing
 - work
 - transport
 - environments
 - dealing with waste.
 - Planning operates at a range of levels from non-involvement (Urban Development Corporations) to total involvement (self-help).

Level 4/5 Considers different styles of development and shows a clear understanding of sustainability. Links the ideas to individual involvement, making some evaluative judgement.

- (ii)**
- Regeneration often involves social, economic and environmental change.
 - Successful regeneration often involves government, business and local people.
 - Investment can create work, improve infrastructure, and the environment.

Level 4/5 Uses examples to illustrate where private investment has played a significant role in the regeneration of areas. Some notion/understanding that it often works in conjunction with other agencies.

- 7 (a)
- 'Dominated by tourism' implies that tourism plays a significant part in the local economy.
 - Could be a country, area within a country or a region.
 - 'Sudden change' can be a number of factors as well as natural disasters, for example:
 - economic change
 - political change
 - social (health) change
 - fashion.
 - Vulnerability can be individual (jobs/money) or focused on general development issues.

Level 4/5 Clear appreciation of vulnerability at different levels and has focus on both short and long term impacts of change.

- (b) (i)
- Understanding of sustainability in terms of people and environments.
 - Tourism can be exploitative.
 - Some areas are more fragile (Environmentally/Culturally) than others.
 - A partnership approach is often seen as more suitable.
 - Short term gains can be at the longer term expense.

DETAILED USE OF EXAMPLES (ECOTOURISM ETC) WITH LIMITED DISCUSSION - LEVEL 4.

Level 4/5 Uses examples to illustrate how tourism can be both short-term and exploitative and managed and sustainable.

- (ii)
- 'Can be' does not always mean 'is'.
 - Examples of where tourism has aided economic development might be used.
 - Examples of where tourism has been exploitative might be used.
 - Examples of where possibilities exist might be used.

Level 4/5 Clear understanding about the advantages and disadvantages of tourism. Uses examples to make an increasingly balanced case.

- 8 (a)
- Globalisation is often dominated by TNCs.
 - Globalisation implies linkages between countries and is linked to trade.
 - Focus on manufacturing - could be any type of manufacturing - finished products or components.
 - Car industry is only one industry - patterns vary according to industrial type.
 - Car industry is dominated by a small number of large players.

Level 4/5 Uses resource to show a sound appreciation of globalisation and the international nature of manufacturing. Some consideration of 'extent' in relation to other products/parts of the world.

- (b) (i)
- Reasons for could include:
 - global shift
 - changing labour markets
 - changing market base
 - decline in raw materials
 - over-reliance on narrow range of opportunities
 - changing industrial location factors.
 - Impacts could include social, economic and environmental factors.

Level 4/5 Uses examples to clearly illustrate both reasons and impacts.

- (ii)
- Understanding about the concept of globalisation.
 - Understanding what is involved/linked to the information and communications revolution. Could include - banking/insurance/call centres/transport etc.
 - Growth of service centres around the world.
 - Development of TNCs reliant on communications systems around the world.
 - South-East Asia/Indian sub-continent/China seen as growth areas.

Level 4/5 Shows an increasingly sound global perspective of change and begins to make evaluative points.

**Mark Scheme 2692
June 2007**

INSTRUCTIONS ON MARKING SCRIPTS

All page references relate to the Instructions to Examiner booklet (revised June 2006)

For many question papers there will also be subject or paper specific instructions which supplement these general instructions. The paper specific instructions follow these generic ones.

1 Before the Standardisation Meeting

Before the Standardisation Meeting you must mark a selection of at least 10 scripts. The selection should be drawn from several Centres. The preliminary marking should be carried out **in pencil** in strict accordance with the mark scheme. In order to help identify any marking issues which might subsequently be encountered in carrying out your duties, **the marked scripts must be brought to the meeting.** (*Section 5c, page 6*)

2 After the Standardisation Meeting

- a) Scripts must be marked in **red**, including those initially marked in pencil for the Standardisation Meeting.
- b) All scripts must be marked in accordance with the version of the mark scheme agreed at the Standardisation Meeting.
- c) **Annotation of scripts**

The purpose of annotation is to enable examiners to indicate clearly where a mark is earned or why it has not been awarded. Annotation can, therefore, help examiners, checkers, and those remarking scripts to understand how the script has been marked.

Annotation consists of:

- the use of ticks and crosses against responses to show where marks have been earned or not earned;
- the use of specific words or phrases as agreed at standardisation and as contained in the final mark scheme either to confirm why a mark has been earned or indicate why a mark has not been earned (e.g. indicate an omission);
- the use of standard abbreviations e.g. for follow through, special case etc.

Scripts may be returned to Centres. Therefore, any comments should be kept to a minimum and should always be specifically related to the award of a mark or marks and be taken (if appropriate) from statements in the mark scheme. General comments on a candidate's work must be avoided.

Where annotations are put onto the candidates' script evidence, it should normally be recorded in the body of the answer or in the margin immediately adjacent to the point where the decision is made to award or not award the mark.

d) Recording of marking: the scripts

- i) Marked scripts must give a clear indication of how marks have been awarded, as instructed in the mark scheme.
- ii) All numerical marks for responses to part questions should be recorded unringed in the right-hand margin. The total for each question (or, in specified cases, for each page) should be shown as a single ringed mark in the right-hand margin at the end of each question.
- iii) The ringed totals should be transferred to the front page of the script, where they should be totalled.
- iv) Every page of a script on which the candidate has made a response should show evidence that the work has been seen.
- v) Every blank page should be crossed through to indicate that it has been seen. (*Section 8a – d, page 8*)

e) Handling of unexpected answers

The Standardisation Meeting will include a discussion of marking issues, including:

- a full consideration of the mark scheme in the context of achieving a clear and common understanding of the range of acceptable responses and the marks appropriate to them, and comparable marking standards for optional questions;
- the handling of unexpected, yet acceptable answers. (*Section 6a, bullet point 5, page 6*)

There will be times when you may not be clear how the mark scheme should be applied to a particular response. In these circumstances, a telephone call to the Team Leader should produce a speedy resolution to the problem. (*Appendix 5, para 17, page 26*)

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 Module. 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'.

Question 1

- (a) Resource 7 in the Resource Booklet suggests ways of classifying pollution. Choose one of the case studies from Section D and complete the diagram provided on the Insert for 1 (a). Annotate each section with appropriate evidence.

[20]

Any of the case studies could be used, but London, Bhopal and Beijing offer the greatest scope to show skills of information extraction and summary.

Level 1 (1-4 marks)

Four sections attempted with some accuracy but without development.

Level 2 (5-8 marks)

All sections used with some development of two.

Level 3 (9-13 marks)

All sections show some development.

Max 10 marks if case study not taken from Resource Booklet.

Level 4 (14-17 marks)

All sections developed, some well developed with detail in the 'effects' boxes.

Level 5 (18-20 marks)

A good summary of all aspects of model using information appropriately with good detail.

- (b) Briefly summarise ways in which air pollutants can spread using examples at a range of scales.

[20]

Information on local to global air circulation is given, and examples of point and diffuse sources. Primary and secondary pollutants are identified, and how they change as a result of movement through the atmosphere. Acid rain, volcanic material and indoor smoke are all mentioned.

Level 1 (1-4 marks)

A basic answer taking a few examples directly from Section B, describing sources of pollution.

Level 2 (5-8 marks)

A little understanding of the processes of the spreading of pollutants, such as air movement or particles dissolving in water.

Level 3 (9-13 marks)

An answer that begins to use examples of pollutants to illustrate points made and shows some understanding of different atmospheric processes.

Level 4 (14-17 marks)

A good answer that extracts selected examples and shows clear understanding of the processes.

Level 5 (18-20 marks)

A well developed answer covering most of the points mentioned above.

Question 2

‘Health issues arising from poor air quality will continue to be more problematic in countries with lower levels of economic development.’

Do you agree? Justify your answer using examples from the Resource Booklet and your own knowledge.

[40]

Level 1 (1-12 marks)

A basic answer which attempts one of the following:

- One or more examples of health issues from poor air quality in LEDCs described but not developed.
- One or more examples of health issues from poor air quality in MEDCs described but not developed.
- An example from an LEDC and an MEDC described.

Level 2 (13-19 marks)

More development is evident and the answer considers issues both in LEDCs and MEDCs but is still largely descriptive.

Level 3 (20-27 marks)

The essay may still be unbalanced, but appreciates the ‘continuing’ element. Detail may be vague, but synthesis begins to be shown by knowledge of countries used. Justification is evident.

Level 4 (28-35 marks)

A range of factors considered for countries at different levels of development, with good knowledge demonstrated.

Some place specific detail used to support points made. Suggestions of ways to manage the problems will be mentioned.

Structure is well ordered and logical in most parts.

English expression is largely clear with only minor lapses.

Level 5 (36-40 marks)

Place specific detail is used to support points made taken from RB and own knowledge.

Structure is well ordered and logical throughout. Management proposals are clear and reflect understanding of the issue at all scales.

Question 3

The use of the Earth's resources, while providing economic wealth, has often created social and environmental problems.

For one or more resources that you have studied (other than air quality) what decisions need to be made in order to ensure their sustainable use?

[40]

Level 1 (1-12 marks)

A basic answer that describes the **sustainable** use of a resource or a problem that arises from past exploitation. Max L1 if Air Quality is used. Max L1 if note form only.

Level 2 (13-19 marks)

A more developed answer that covers one (or more) issue briefly and gives an example of how a decision has been made or is being considered.

Level 3 (20-27 marks)

Shows an understanding of more than one decision in relation to the use of resources. Use of English is moderately accurate.

Level 4 (28-35 marks)

A good answer that begins to achieve balance.

Structure is well ordered and logical in most parts.

English expression is largely clear with only minor lapses.

Synthesis is evident.

Illustrates wealth creation.

Shows understanding of social **and** environmental problems.

Decisions need to be specific for top of level.

Level 5 (36-40 marks)

A balanced answer written in almost faultless English illustrated with specific detail of place and process and demonstrating synopticity.

All points in L4 covered, and 'decisions' at more than one scale (e.g. local, national, global).

**Advanced GCE Geography 3833, 7833
June 2007 Assessment Series**

Unit Threshold Marks

Unit		Maximum Mark	a	b	c	d	e	u
2687	Raw	90	60	52	45	38	31	0
	UMS	90	72	63	54	45	36	0
2688	Raw	90	72	64	56	49	42	0
	UMS	90	72	63	54	45	36	0
2689	Raw	60	46	42	38	34	30	0
	UMS	120	96	84	72	60	48	0
2690	Raw	90	72	63	54	46	38	0
	UMS	90	72	63	54	45	36	0
2691	Raw	90	66	59	53	47	41	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	150	120	0
7833	600	480	420	360	300	240	0

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

	A	B	C	D	E	U	Total Number of Candidates
3833	17.69	40.16	64.61	80.52	93.64	100	503
7833	26.28	51.67	75.06	91.76	98.44	100	449

952 candidates aggregated this series

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

Statistics are correct at the time of publication

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