

# **Geography Specification B**

Advanced GCE A2 7833

Advanced Subsidiary GCE AS 3833

## **Mark Scheme for the Components**

**January 2008**

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## CONTENTS

**Advanced GCE Geography B (7833)**

**Advanced Subsidiary GCE Geography B (3833)**

### MARK SCHEMES FOR THE UNITS

<b>Component</b>	<b>Page</b>
2687 Physical Systems and their Management	1
2688 Human Systems and their Management	9
2689 Geographical Investigations 1	20
2691 Issues in the Environment	28
Grade Thresholds	39

# 2687 Physical Systems and their Management

## Section A

Answer two questions

### Atmospheric Systems and People

- a) **Study Fig.1 on the insert, which shows a weather map. Describe the atmospheric conditions that may have led to the formation of fog in this area.** [9]

Indicative:

Map suggests anticyclonic conditions with coastal fog due to cold onshore winds crossing the warmer north sea but more generic answers will suffice:

Calm or little wind

Temperature inversion to trap the fog

Contrast in air and ground temperatures

Source of water

Also allow - Lower relief (fog hollows) or source of industrial fumes (smog)

#### **Level 3 (8-9 marks)**

A clear description in depth and detail of at least two or more atmospheric conditions of fog formation. Top level answers may refer to the map and appreciate the time of year.

#### **Level 2 (5-7 marks)**

A sound description of at least two conditions in depth or a range of conditions with little detail. Limited if any reference to the map.

#### **Level 1 (1-4 marks)**

A basic description with little or vague detail of a limited range of atmospheric conditions e.g. little wind.

- b) **Explain ways in which fog can affect human activity.** [9]

Indicative:

Most will see this as producing hazards for traffic or ships at sea. Others may go further and look at the health risks, impact on farming (lack of sunlight but damp), pollution (smog) and general sense of well being.

The stress is on explaining the ways i.e. reducing visibility, high humidity, reducing sunlight, possibly freezing into Rime

#### **Level 3 (8-9 marks)**

Detailed explanation supported by clear linkage to a range of specific human activities.

**Level 2 (5-7 marks)**

Clear explanation with a focus on two or more human activities.

**Level 1 (1-4 marks)**

Limited or vague explanations or largely descriptive with some inaccuracies.

- c) **For a named urban area that you have studied, explain its microclimate.** [12]

Indicative:

The stress is on explaining how they form i.e. the cause. This involves the concentration in urban areas of heat absorbing surfaces e.g. roads, heat reflecting surfaces e.g. windows, heat sources e.g. traffic/factories as well as those impacts on precipitation, wind speed/direction caused by the nature of buildings and other urban features

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

Detailed explanation of the urban micro-climate supported with detailed exemplification.

**Level 2 (6-9 marks)**

Clear explanation of the urban micro-climate with some limited exemplification.

**Level 1 (1-5 marks)**

Limited or vague explanation or largely descriptive with little exemplification. Not well linked to the cause of urban micro-climate.

**2. Landform Systems and People**

- a) Study Fig.2 on the insert, which shows a field sketch of a river valley slope. Describe the evidence that these slopes are unstable. [9]**

Indicative:

The sketch shows:

Bent tree and terracettes from soil creep

Boulders from free fall/avalanche

Landslide or flow with scar

Rotational slipped block

Lack of vegetation on the slopes suggesting active movement.

**Level 3 (8-9 marks)**

A clear description in depth and detail of two or more of the features shown on the sketch. Top level answers will refer to the sketch and appreciate the rock type or role of the river.

**Level 2 (5-7 marks)**

A sound description of at least two features in depth or a range of features with little detail. Limited if any reference to the sketch.

**Level 1 (1-4 marks)**

A basic description with little or vague detail of a limited range of features e.g. Tree.

- b) Suggest ways that unstable slopes can be managed. [9]**

Indicative:

This may include slope foot engineering e.g. revetment, reducing the source of undercutting; slope face engineering e.g. drainage, planting vegetation, sheet piles and rock nets; whole slope engineering e.g. slope grading

**Level 3 (8-9 marks)**

Detailed explanation of two or more ways well linked to stabilising slopes via clear cause-effect.

**Level 2 (5-7 marks)**

Clear explanation of at least 2 ways linked to stabilising slopes with some cause-effect.

**Level 1 (1-4 marks)**

Limited or vague explanations or largely descriptive of one or more ways poorly linked to slope instability.

- c) **For a named river basin that you have studied, explain how and why upper river catchments are managed.** [12]

Indicative:

The stress is on upper catchment not just rivers in general.

How – this may include whole basin aspects such as afforestation, control of type of land use, planning restrictions or more valley/channel specific aspects such as dams, drainage, diversion, channel straightening etc

Why – should relate to the impact on areas below this in the river system but could include more example specific reasons such as conservation, tourism/recreation etc

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

Detailed explanation of both how and why well linked to a detailed case study.

**Level 2 (6-9 marks)**

Clear explanation especially of how with some linkage to a case study.

**Level 1 (1-5 marks)**

Limited or vague explanation or largely descriptive with a confusion of how and why. Some inaccuracies and limited or no reference to a case study.

Max level 1 if clearly not an upper river catchment.

**3. Coastal Systems and People**

- a) Study Fig. 3, an OS map of Selsey Bill. Using map evidence, describe how human activity modifies coastal areas. [9]**

Indicative:

Coastal landforms can be interpreted broadly.  
Groynes in 83, 93, nature reserve 8796, diversion of river 8394, urban/resort development (all along the coast), marina 8301, creation of lagoon 8896

To be fully effective candidates need to describe how the activity has modified the landform.

**Level 3 (8-9 marks)**

A clear description in depth and detail of two or more of the modifications shown on the map. Top level answers will refer to the map and appreciate the nature of the landform modified.

**Level 2 (5-7 marks)**

A sound description of at least two modifications shown on the map or a range of features with little detail. Limited reference to the map.

**Level 1 (1-4 marks)**

A basic description with little or vague detail of a limited range of modifications e.g. Pier built for tourism

- b) With the aid of diagrams, explain the formation of two different coastal landforms. [9]**

Indicative:

This clearly depends on the landforms. Expect stacks, arches, caves, cliffs, spits, bars beaches etc to be popular. Scale is not important as it is self restricting eg cusp v bay. The stress is on explanation of its reformation which is challenging in the space/time. Credit well labelled diagrams which clearly show how it is formed – maximum marks could be gained by well annotated diagrams alone. There is no requirement to exemplify.

Max 5 marks if only one landform attempted or appropriate.

**Level 3 (8-9 marks)**

Detailed explanation supported by well labelled diagrams.

**Level 2 (5-7 marks)**

Clear explanation with diagrams but not necessarily equally detailed.

**Level 1 (1-4 marks)**

Limited or vague diagrams and explanations or largely descriptive with some inaccuracies.

Maximum top of level 1 if no diagrams.



- c) **For a named stretch of coastline that you have studied, explain why coastal management is necessary.** [12]

Indicative:

Clearly reasons may vary with the particular example.  
Most will include the idea of erosion to the area or/and of the impact on areas or activities outside the immediate area e.g. Hengistbury Head groyne.

Other reasons include – the coast is a system so must manage a variety of flows and stores, reduce cost and reduce duplication, the variety of demands on the coastal area e.g. tourism v coastal protection, planning controls/authorities etc.

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

Detailed explanation of why (at least two reasons) coastal management is needed well linked to a detailed case study.

**Level 2 (6-9 marks)**

Clear explanation of the needs with some linkage to a case study.

**Level 1 (1-5 marks)**

Limited or vague explanation or largely descriptive with some confusion over reasons. Some inaccuracies and limited or no reference to a case study.

4. **With reference to named examples, show how human activity may produce unintended impacts on natural systems.** [30]

Indicative:

Human activity impacts on different flows and stores in the natural systems. Sometimes it is planned but other times it is unintended or accidental. It may be negative and destructive e.g. pollution; positive and constructive e.g. re-forestation or neutral and managing (protecting and conserving) e.g. military ranges conserve wildlife.

Clearly these impacts will vary over time, with scale and may impact differently on different aspects or different systems. It also varies with the level of development of, and technology available to, human activity.

**Level 5 (27-30 marks)**

A detailed, well-structured, logical and balanced essay with a detailed evaluation and understanding of how human activities unintentionally impact on natural systems (via inputs, outputs and stores) with good exemplification from different areas of study. Some appreciation that the modification 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 activities are modifying natural 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 modification. 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 systems and human activities. Some evidence of structure but limited conclusions.

Max Level 3 if one system or one case study.

**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 types of modifications. Very little understanding of cause-effect with very limited geographical knowledge, or examples. Poor structure with obtrusive errors.

5. **‘Flooding is not just the result of climatic phenomena.’ Explain this statement with the aid of named examples. [30]**

Indicative:

Flooding will be seen as climatic via sudden snowmelt, heavy precipitation, prolonged precipitation, storm surges in a hurricane but also it can result from:

Landform systems – removal of vegetation, destruction of banks etc

Coastal systems – rising sea levels, high or storm tides, erosion of barrier beaches etc

Human activities – dam building, urbanisation, managed retreat, basin irrigation etc

**Level 5 (27-30 marks)**

A detailed, well-structured, logical and balanced essay with a clear understanding of a range of causes of flooding drawing on a variety of systems and human activities with good exemplification from different areas of study. Clear evaluation with some appreciation that it varies with scale and location/time 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)**

An effective essay that shows a good understanding of a range of causes of flooding drawing on a variety of systems and human activities with exemplification from different areas of study, and has specific place knowledge. Explanation is effective and clear on cause-effect relationships. The answer is well organised and attempts to evaluate the importance.

**Level 3 (15-20 marks)**

A clear understanding and reasonable use of appropriate terminology. Clear understanding of cause-effect but may lack balance between systems and human activities. Some evidence of structure but limited conclusions and some weaknesses in the standard of English.

Max top of level 3 if only a single 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: weaknesses in English are apparent.

**Level 1 (1-8 marks)**

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

# 2688 Human Systems and their Management

## 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 ie "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. eg "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 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.

**Section A**

Parts of the answers that are not attempted, or do not answer the question at all, will not reach Level 1 and will score 0.

**Question 1**

- (a) **Use Fig. 1 to help describe the impacts inward investment can have on a regional economy.** [9]

The diagram gives starters to show that there are more firms/jobs created than just those from the direct investment. These can be developed. The firm/job creation can be put into the context of the regional economy relating to reduction in unemployment, greater revenues for local government, improvements to local infrastructure greater spending power/increased local market and general improved prosperity. This can be illustrated well by describing a multiplier effect. Answers likely to be positive, but credit pressures on services, housing, transport and rural land that may be negative.

**Level 3 (8 – 9 marks)**

Several aspects of the regional economy covered. More income in circulation likely to be mentioned and illustrated (eg more money spent in shops, creating further jobs/increasing prosperity of businesses). Located examples are not required, but add to the overall credit, if given. Whatever aspects of regional economy are selected, description is quite clear.

**Level 2 (5 – 7 marks)**

Idea of more firms/jobs is extended to some aspects of the regional economy and elaborated beyond what is given. At the lower end this will be fairly restricted, eg local infrastructure means new roads or widening/duelling existing roads. Answers describe only a few points, or if the range is wider, they lack of depth.

**Level 1 (1 – 4 marks)**

Mainly repetitions from the resource. The idea of more jobs is likely to be expressed but not linked to the regional economy. At the top end this may list related jobs, but not elaborated beyond what is given.

- (b) **Explain why plant closures can have serious consequences for communities in the surrounding area.** [9]

Explanation is needed here. Answers must identify and explain more than one consequence for communities. Candidates may choose environmental or economic (or other) consequences as starting points, but must relate these to communities for high credit. Consequences are likely to be negative but credit well any that cover positive consequences, eg investment in projects to divert young people away from drugs and crime.

**Level 3 (8 – 9 marks)**

Two or more consequences for communities explained clearly and in some depth. Examples are not required but if given, and go into detail beyond just names of places, may well meet the requirements of this level.

**Level 2 (5 – 7 marks)**

Clearly explains some aspect related to the community. The main characteristics of the level are the restricted number of consequences, or a lack of depth and detail if a large number are mentioned. Unemployment will be developed to knock-on effects, eg how direct lay-offs can jeopardise other jobs.

**Level 1 (1 – 4 marks)**

May list one or more consequences but not explain them. Most likely will be unemployment, but not developed. Consequences other than those for the community will remain in this level.

- (c) ***For a named country, explain how government policies have encouraged economic activity.*** [12]

The spec identifies this issue for the UK. Candidates are more likely to give examples of government incentives to attract MNC investment in LEDC countries. This approach would be perfectly sound up to the top of Level 3.

**Level 3 (10 – 12 marks)**

Both the government policy (specific incentives – reduced taxation, ready-built infrastructure, etc) and the economic activity (number of jobs, relative pay rates, etc). An appropriate country will be considered, and detail will be good for either place specifics, or the clarity of linkage, or for both at top of the level.

**Level 2 (6 – 9 marks)**

A valid example will be chosen. Answers may be unbalanced between policy and economic activity, or superficial if both covered. Place detail may be limited.

**Level 1 (1 – 5 marks)**

Answers are likely to just name a country, state that the government offered incentives and this made the economy grow. Good generic answers may reach the top of the level.



## Question 2

- (a) *Use Fig. 2 to describe the distribution of black and ethnic minority groups in Birmingham.* [9]

The map is quite detailed and the pattern fairly clear. Percentages are highest in a central belt with declining percentages towards the northern and southern extremities. The most central area isn't the highest. However, central areas, particularly towards the west are high. Percentages range from 10.0% and below to over 60%. Some named areas and supporting figures and distance and direction can be expected from the best answers.

Level 3 (8 – 9 marks)

Good detail given including supporting figures, or reference to wards. Either variations/anomalies, or the range, or both, supported by evidence, is presented. There is good use of scale and/or compass directions.

Level 2 (5 – 7 marks)

**Describes the central belt and north/south decline. Some figures/wards from the map used in support. Variations/anomalies in the pattern, or range of percentages hardly mentioned. Description has major gaps.**

Level 1 (1 – 4 marks)

**Focus on inner/outer contrast. Giving the 'expected' answer rather than a detailed description from this map. Any support from the map is very limited, with little use of distance/direction.**

- (b) *Explain why patterns of residential land use may change in urban areas.* [9]

Explanation is the command word, so that should be the focus. Credit good description, especially place specific, if it helps support the explanation. High credit can go to one process explained in great detail, or to a wide range, each with some convincing explanation but no great depth. Most likely points will be new building, upward spiral (gentrification), downward spiral (urban decay), but may consider other patterns such as; ethnic (security, language, customs, religion), economic (income, house price, skill level), social (life cycle stage, age). Answers relying principally on prejudice will need very good detail to reach the top level.

**Level 3 (8 – 9 marks)**

One or more factors explained fairly fully. The process leading to residential land use change will be clear. Although place detail is not required, if given, this may well lead to the depth required at this level.

**Level 2 (5 – 7 marks)**

One, or more factors given some explanation. The explanation may be accurate, and reasoning can be followed, but there will be gaps in the argument or be over brief/simple.

**Level 1 (1 – 4 marks)**

Most likely answers here will still be mainly description. If explanation given, then such answers may identify a correct factor(s), but not really explain it (them).

- (c) *For a named urban area in an MEDC, describe and explain the main planning and development issues it has faced in recent years.* [12]

The spec requires one in the UK to be compared with that of another MEDC, but it is likely that a UK example will be chosen. Description and explanation are required, but good candidates may well incorporate the description in their explanation if they have good knowledge of a case study. As a named area is required, good place detail is needed for the highest level.

**Level 3 (10 – 12 marks)**

Two or more clear issues will be identified well and clearly linked to planning and development that shows some good detail. The question uses the word 'issues', but if a candidate takes one issue, but clearly identifies more than one distinct stage involved in planning and development to solve it, then they will have satisfied the 'plural' demand. eg Glasgow housing and Cumbernauld new town, followed by GEAR and Glasgow Alliance Strategy.

**Level 2 (6 – 9 marks)**

Some valid issue(s) will be identified and linked to planning and development. These will be largely accurate, but will be lacking much detail or depth. Place will be recognisable from what is described and explained.

**Level 1 (1 – 5 marks)**

Answers in this level may be vague, or not really answer the question. Answers taking London Dockland, describing locals becoming 'outpriced', but without relating this to any planning or development, will fit here. Good generic answers may reach the top of the level.

## Question 3

- (a) **Use Fig. 3 to describe how the relationship between population and resources differs between Canada and the Netherlands.** [9]

Optimum population is often defined as the relationship between population and resources that gives the highest standard of living at the current level of technology. Fig. 3 shows a resource index in relation to total population, land area, level of technology and wealth. Canada has a large area and resource base compared to its population with a high living standard but lower level of technology. The Netherlands has a small land area and resource base compared to its lower population but has a high standard of living and a very high level of technology.

**Level 3 (8 – 9 marks)**

Relationships are identified and differences noted with supporting detail provided extracted from the resource.

**Level 2 (5 – 7 marks)**

One or more relationships are identified and some differences identified. Some support given, but gaps remain.

**Level 1 (1 – 4 marks)**

Figures read off but relationships/differences are left to the reader to identify. At lower end, figures just reproduced, at the upper end they may be juxtaposed in a meaningful way.

- (b) **Explain why overpopulation may occur.** [9]

Optimum population is when the population can enjoy the highest standard of living from the known resources at the current level of technology. So any explanation of population increase, reduction in resources, lack of awareness of resources, lack of technology to exploit them, or other reason for the inability to exploit them is relevant.

**Level 3 (8 – 9 marks)**

Answers here should fairly fully explain population increases involving both births and deaths. Alternatively, substantial discussions of difficulties involved in increasing food supplies, or lack of technology or investment to develop resources can score here – but less likely. Credit Malthus/Boserup debate only if it actually answers the question.

**Level 2 (5 – 7 marks)**

Some clarity in explaining is given. 'Population is growing faster than the increase in food production' would be a typical minimum statement. Discussion of either difficulties of reducing birth rates, or reasons why life expectancy is increasing, or death rates are falling would go higher in the level. Candidates at this level may be distracted by a Malthus/Boserup debate that does not answer the question.

**Level 1 (1 – 4 marks)**

Simple statements that are not clear or not developed far. 'Population becomes more than resources' or similar answers.

- (c) *For one or more named countries, explain how and why governments try to encourage a change in the birth rate.* [12]

For decrease, LEDC example(s) are likely stressing the drain of youth dependency, with detail related to the specific location. Expect China one-child to be selected. For increase it is most likely to be a MEDC or well advanced NIC where old age dependency has become, or is becoming, an issue. Equally valid are more historical examples – strong nation type such as post-war China. The ‘whys’ should be extensive and fall into one of these categories for high marks. The ‘hows’ will be much more dependent on the example chosen but should have some specific policy detail for the highest level.

**Level 3 (10 – 12 marks)**

Sound detail on both why and how for an appropriately selected country(ies) is given. Detail would consist of, for example, ‘They try to lower the birth rate because too many children means higher taxes to pay for schools.’ or ‘To increase the birth rate the government gives higher tax relief for additional children.’ To be sound, several reasons need to be put together, or less reasons, but each very well developed. For the how, specific measures would need to be named, or detail on how they work.

**Level 2 (6 – 9 marks)**

Accurate country(ies) chosen with some explanation of either why or how. May be unbalanced in why and how, good detail on one, less/none on the other, or both given but limited in detail on both.

**Level 1 (1 – 5 marks)**

May have a correct country. Why might be rather simple, eg for increase, ‘too many children’ without developing this. How is unlikely to go beyond ‘government give incentives’. Good generic answers may reach the top of the level.

**Section B****Question 4**

***‘Settlement and population problems are confined to LEDCs.’***

**How far is this true?**

**[30]**

To answer this fully candidates need to examine both levels of economic development, and relate those levels to problems of settlement and population. From the information they provide, they should make a supported judgement. There should also be some supported discussion of how far. To be a full answer, each chosen country should show some sound place detail. Answers showing all those characteristics soundly would reach Level 5. Minor gaps would qualify for Level 4, major gaps but still some substance Level 3, major gaps with little substance Level 2 and only minor relevant points not organised into an answer Level 1. The quality at each level should be comparable to the levels found in question 5.

**Level 5 (27 – 30 marks)**

There may not be a totally watertight answer, but each component of the question will be addressed beyond the basic. Support from at least one LEDC and one more developed country will have some accurate detail. Both sides of the argument will be presented even if no final conclusion is reached.

**Level 4 (21 – 26 marks)**

A number of sound points made that begin to support how far. Some imbalance or incompleteness will be evident. Examples will be sound with some place detail for at least one country.

**Level 3 (15 – 20 marks)**

One or two sound points are made, but with obvious gaps. This may be the neglect of one of population or settlement, or a focus on only one level of development. Specific reference to one country at least is likely, but good answers that remain generalised can reach this level.

**Level 2 (9 – 14 marks)**

A little bit of a real answer provided, but this may be confined to just one point, and most points that could be expected are not made. Slightly better answers, but related to MEDCs/LEDCs in general would fit here.

**Level 1 (1 – 8 marks)**

Isolated pieces of information that might be relevant but that are not organised into an answer. Answers may relate to MEDCs/LEDCs in general and be over sweeping. Very brief answers or answers to different but related questions will fall here.

**Question 5**

***'Global shifts in economic activity produce more even development throughout the world.'***  
**How far do you agree? [30]**

A full answer needs to identify at least two shifts in economic activity. Their impacts on development need to be identified in the countries receiving the activity. Some comparison of the level of development of these countries compared to leading MEDCs should feature. Other aspects may be included, such as the impact on economies that the economic activities have shifted from. From this evidence there should be some supported discussion of how far. Sound place detail should be given. Answers showing all these characteristics would reach Level 5. Minor gaps would identify Level 4, but more major gaps, but still some substance, would be Level 3. Major gaps with only a little substance would characterise Level 2 and only minor relevant points not organised into an answer would constitute Level 1.

**Level 5 (27 – 30 marks)**

The answer may not be perfect, but each of the components of a full answer is considered beyond the basic. Support from at least two economies will have some relevant detail. Both sides of the argument will be presented even if no final conclusion is reached.

**Level 4 (21 – 26 marks)**

A number of sound points are made that can begin to satisfy the answer to how far. Some imbalance between comparing two affected economies, or neglecting to fully consider the 'gap' are likely to be present. Examples will be sound with some place detail for at least one country/shift.

**Level 3 (15 – 20 marks)**

One or two sound points are made, but with obvious gaps. Only one shift, or only the performance of one economy may feature. Specific reference to one country or specific shift can be expected, but there may be rather better, but still generalised answers here.

**Level 2 (9 – 14 marks)**

Some relevant information is related to a valid point, but most components of an expected argument are missing. Very generalised answers with an accurate simple outline will fit here.

**Level 1 (1 – 8 marks)**

Some isolated relevant pieces of information but not organised into an answer. MNCs in general and MEDCs/LEDCs referred to in a sweeping way. Very brief answers, or answers to different but related questions would fall here.

# 2689 Geographical Investigations 1

## 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		
	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 explain how any results in your investigation did not match commonly accepted geographical theory.**

*Indicative content: this question is looking for unexpected results that did not match theory*

- Commonly accepted theory is stated that relates to the anomalies subsequently (or previously) discussed, e.g. pedestrian flows ↓ with ↑ distance from CBD; discharge ↑ with ↑ distance downstream.
- Unexpected (anomalous) results described, e.g. pedestrian flows ↓ then ↑ then ↓ with ↑ distance from CBD in one particular direction only; discharge highly variable with ↑ distance downstream.
- Explanation for unexpected results could be in terms of:
  - Experimental technique: e.g. poor sampling methodology, data collection errors (poor/inappropriate equipment, inexperience collecting data, inconsistent collection of data within and between groups, method used, impeded by weather conditions) incorrect calculations and poor choice of diagrams.
  - Local conditions: e.g. historical town building restrictions affect shop locations; river/coast affects functional distribution; variation in rock type and vegetation type affects river flow.

**The following content is applied to each level:**

- The discussion relates to the personal enquiry.
- The relevance of the results discussed.
- Understanding of how results do not match accepted theory.

**Level 5 (18-20 marks)**

**Either** Two or more results are discussed well.

**Or** More results are discussed in less depth.

The answer is logically ordered and well presented.

**Level 4 (14-17 marks)**

**Either** Two or more results are discussed quite well.

**Or** More results are discussed in less depth.

The answer is generally logically ordered and well presented.

**Level 3 (9-13 marks)**

**Either** Two or more results are discussed moderately well.

**Or** More results 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 results are discussed adequately.

**Or** More results are discussed in less depth.

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

**Level 1 (1-4 marks)**

**One or more** unexpected results are discussed in a basic manner.

There are considerable gaps and/or errors in the answer, e.g. theory is not stated; does not describe results in relation to not matching geographical theory.

**2 Weather conditions may affect the collection of data and the results of a Geographical Investigation. Discuss how actual and possible weather conditions could have affected your investigation.**

*Indicative content:*

- Credit discussion of actual weather conditions and possible weather conditions (i.e. what might/would have happened if data collection had taken place during inappropriate weather conditions.)
- Collection
  - Rain: e.g. could/may not get anyone to answer on-street questionnaires; difficult to read field instruments.
  - Snow: e.g. ground covered up.
  - Wind: e.g. knocks instruments over; loose data collection sheets
- Results
  - Rain: e.g. biased ratings for environmental impact survey; intermittent rain affects air temperature, soil moisture.
  - Snow: e.g. incomplete data set.
  - Wind: e.g. incomplete data set; dunes – gusts of wind at all sites makes it difficult to see impact of shelter and exposure.

**The following content is applied to each level:**

- The discussion relates to the personal enquiry.
- The relevance of the material presented, i.e. weather not climate; collection and results not sampling.
- The relationship between weather and data collection and the subsequent results.
- The balance between the 2 parts of the response

**Level 5 (18-20 marks)**

Impact of weather conditions on the investigation are discussed **well**.  
The answer is logically ordered and well presented.

**Level 4 (14-17 marks)**

Impact of weather conditions on the investigation are discussed **quite well**.  
The answer is generally logically ordered and well presented.

**Level 3 (9-13 marks)**

Impact of weather conditions on the investigation are discussed **moderately well**.  
There are lapses in the logic and presentation of the answer.

**Level 2 (5-8 marks)**

Impact of weather conditions on the investigation are discussed **adequately**.  
There are noticeable gaps and/or errors in the answer.

**Level 1 (1-4 marks)**

Impact of weather conditions on the investigation are discussed **in a basic manner**.  
There are considerable gaps and/or errors in the answer, e.g. it is not understood how the weather affects the investigation.

**3 Discuss how successful you were in reducing errors during planning and data collection.**

*Indicative content:*

- Type of sampling: appropriateness.
- Sample size: too large or too small (planned or actual), (e.g. number of interviewees, representativeness of interviewees, river depth).
- Type of data: appropriateness, redundant variables.
- Inability to sample from planned locations (e.g. no access, tide in, river too shallow).
- Pilot survey: carried out.
  - Site visit to check accessibility.
  - Equipment: check that it works.
  - Technique: check that know how to collect data.
- Use of time available.

**The following content is applied to each level:**

- The discussion relates to the personal enquiry.
- The relevance of the planning and collection errors discussed.
- The success in reduction of errors is discussed.
- Awareness of experimental control.
- The description of the errors.

**Level 5 (18-20 marks)**

**Either** Success in reducing **two or more** planning and collection errors is discussed **well**.

**Or** **More** planning and collection errors are discussed **in less depth**.

The degree of success is discussed in detail.

The answer is logically ordered and well presented.

**Level 4 (14-17 marks)**

**Either** Success in reducing **two or more** planning and collection errors is discussed **quite well**.

**Or** **More** planning and collection errors are discussed **in less depth**.

The degree of success is discussed.

The answer is generally logically ordered and well presented.

**Level 3 (9-13 marks)**

**Either** Success in reducing **two or more** planning and collection errors is discussed **moderately well**.

**Or** **More** planning and collection errors are discussed **in less depth**.

The degree of success is discussed.

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

**Level 2 (5-8 marks)**

**Either** **One or more** planning and collection errors are discussed **adequately**.

**Or** **More** planning and collection errors are discussed **in less depth**.

The degree of success may be discussed.

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

**Level 1 (1-4 marks)**

**One or more** planning and collection errors are discussed **in a basic manner**.

There are considerable gaps and/or errors in the answer, e.g. the degree of success is unlikely to be discussed.

- 4 A group of AS students carried out an Investigation on a sand dune system. They collected the data shown in Fig. 1 along a transect on one occasion in March.
- (a) Graphical techniques are often used to represent data. Using the space provided, show how all the data in Fig. 1 can be represented appropriately. [There is no need to plot the data accurately.]
- (b) Suggest and justify additional data that could be collected which would help the AS students investigate the physical and/or human influences upon these sand dunes.

*Indicative content:*

- (a) Method of representing data:
- Diagram ideally is a set of 3 parallel graphs along the dune profile – conventionally the profile showing height goes at the bottom of the page. All graphs have same horizontal scale.
  - Acceptable: data plotted as discrete graphs. Graphs may/may not have common scales.
  - Locating diagrams onto a map.
  - Diagram should show: title, scale and units, axes labelled (x axis to show distance and site number), key as appropriate.
  - Height: vertical exaggeration should not be too great (if possible). Measured heights should be joined in a line (smoothed out, or set of straight lines joining the points).
  - Vegetation cover: pie chart, proportional circle, bar chart. Consider scale for readability.
  - No. of species: bar chart, proportional circle. Consider scale.
- (b) Additional data:
- More fieldwork by the AS students
    - Additional transects so that more of sand dunes are covered.
    - Survey for blow outs, litter, fencing, footpaths, boardwalks, (re)planting, non access areas.
    - Repeat survey in summer when more flowers identifiable.
    - Transects to consider abiotic influences (temperature, soil moisture, wind speed, pH).
    - Collect photographic evidence.
  - Secondary data
    - Management plan – showing what has been done, what is planned, costs, benefits, problems.
    - Any of 1st bullet “more fieldwork” that has been collected by other organisations.
    - Public information, e.g. National Trust; local council.

**The following content is applied to each level:**

- The discussion refers to the figures.
- The relevance of the method of representing the data.
- The relevance of additional data suggested for showing physical and/or human influences.

**(a)**

**Level 3 (8-10 marks)**

The method of representing the data is described **well**.

The answer is logically ordered and well presented, e.g. integration on one diagram likely.

**Level 2 (4-7 marks)**

The method of representing the data is described **moderately well**.

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

**Level 1 (1-3 marks)**

The method of representing the data is described **in a basic manner**.

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

**(b)**

**Level 3 (8-10marks)**

The justification of relevant additional data is considered **well**.

The answer is logically ordered and well presented.

**Level 2 (4-7 marks)**

The justification of relevant additional data is considered **moderately well**.

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

**Level 1 (1-3 marks)**

The additional data are considered **in a basic manner**.

There are considerable gaps and/or errors in the answer, e.g. there is little additional data, it is not relevant, it is not justified.

# 2691 Issues in the Environment

## 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) Key points identified from the resource include:
- Moorland catchment area
  - Area where average rainfall amounts are quite high
  - Narrow, steep sided valleys – so short lag times
  - Boscastle stands at the confluence of two rivers
  - Near the sea so vulnerable to coastal flooding
  - 'South-west', vulnerable to Atlantic storms.

To what extent:

- There are many settlements built in vulnerable areas
- This is essentially river flooding – coastal flooding not considered
- The scale is essentially small in the Boscastle example
- Physical landscapes and conditions vary
- Economic factors make places more/less vulnerable.

- (b) (i) Describe **and** explain the distribution:
- Basic link to plate movements/key areas 'Pacific Ring of Fire' etc
  - Types of plate movements affect number/type of hazard
  - Focus might be on subduction zones/locations of tectonic activity
  - More detailed responses might consider 'hot spot' activity
  - 'Explain' should consider types of plate movements linked to specific hazards.
- (ii) Focus on LEDCs
- Some appreciation of primary/secondary impacts (linked to needs)
  - Some appreciation of why LEDCs are especially vulnerable to hazards
  - Some appreciation of both short **and** long term aid and their **relative** importance
  - Importance of short-term aid:
    - often emergency aid
    - consideration of basic requirements such as shelter/medicine/ clothes/water/food etc
    - some appreciation of immediate repair of infrastructure/ difficulties created by damaged infrastructure
  - Long-term aid:
    - where short-term ends/long term begins might be blurred
    - longer term factors linked to on-going survival/drought/food/water/shelter/education/health etc/ or development/ or preparation for future possible hazards

2 (a) 'To what extent' considered in question.

Evidence from resource includes:

- retreat of glaciers
- melting permafrost
- flooding
- coastal erosion
- changes to animal populations
- shorter 'cold' seasons
- specific temperature change data
- spread of vegetation.

'To what extent' idea:

- candidates might question the nature of some of the data
- candidates might question the time frame considered.

- (b) (i)
- Global warming may have a number of impacts, including:
    - rising sea levels/flooding
    - changing climatic patterns affecting agriculture/industry/tourism/travel
    - changes to the patterns of disease/natural hazards
  - 'Challenges' could be expressed in terms of:
    - challenge could be considered in terms of response (more efficient/cleaner energy, reducing carbon footprints etc.)
    - cost of management
    - cost in socio/economic terms
    - relative impact, MEDC/LEDC
    - 'cost' in terms of longer term sustainability
    - opportunities that change may provide (Industry/Agriculture)
    - Increased cost of managing extreme events
- (ii) Causes **and** effects
- short term climatic hazards can include fog, ice, heat, frost, snow, storms, flooding – all of which can be 'short' term according to location
  - causes can include weather phenomena at a variety of scales/human induced hazards
  - effects can be broadly considered in terms of
    - human effects – health/behaviour etc
    - economic effects – transport, industry
    - broader economic effects specific to factors such as agriculture, transport, tourism etc.
    - challenges of managing the hazard and its impacts
    - effects may be dictated by level of development

- 3 (a)
- Must be linked to cold environments (if marginal, MAX L2)
  - Consider landscape in its broadest context (including flora/fauna)
  - Points from resource focus on:
    - mountains/scenery
    - physical features (glaciers) etc
    - flora/fauna
    - some activities (kayakers)
    - general 'wilderness' outdoor ideas.
  - Beyond the resource, there may be:
    - similar ideas/examples from different locations
    - range of activity based opportunities including skiing/snowboarding/ climbing/hiking etc or more passive activities such as photography/ painting etc.
- (b) (i)
- 'To what extent' idea may be linked to ideas about sustainable management
  - Areas threatened by economic development – exploration of minerals/tourism etc
  - Areas threatened by the development of infrastructure which may be linked to tourism or general economic development
  - Areas threatened by winter sports (tourism/competitions)
  - 'Extent' might bring in relative observations about:
    - comparative impacts
    - the importance of management in reducing negative impacts.
  - might consider economic development in its broadest context – global warming affecting cold environments through climate change
- (ii) Describe **and** explain:
- Describe suggests a clear understanding of process which may consider fluvial/glacial processes and features of glacial retreat
  - Process linked to specific features
  - 'Specific' landforms are not required – candidates may include moraines, eskers of deposition, glacial till etc, or general physical characteristics

- 4 (a) Key points identified from the resource include:
- Company has 'worked its way' through parts of SE Asia, Africa, S America and Eastern Europe
  - 500,000 of the largest trees have been removed
  - It has built roads/damaged landscapes
  - Unselective approach to logging damages environment
  - Damage to wildlife habitats is a common feature of exploitative development.

'Extent' idea might consider:

- Comparative case studies which also consider other types of exploitative development
- Areas where more careful management might ensure a more sustainable approach to the development of tropical environments.

- (b) (i) Any two 'contrasting' tropical environments. Could be rainforest, semi-desert, desert or tropical grasslands.

Compare and contrast:

- relative comparison or contrast may depend on examples chosen
- some ecosystems may have comparisons/similarities
- some ecosystems may have wide ranging differences
- expectation of mention of flora, fauna, climate, soil etc, and how these factors interrelate

- (ii)
- Some appreciation of the fragile nature of tropical ecosystems
  - Some understanding of what is meant by 'sustainable agriculture'
  - Consideration of the potential impact of agriculture, particularly in relation to exploitative forms of development
  - Understanding that careful stewardship is required if agriculture and natural systems are going to co-exist successfully
  - Use of examples to illustrate exploitative agriculture and/or sustainable agriculture will provide a useful vehicle to address the question.

- 5 (a) Key points identified from resource include:
- 25% of children in LEDCs are undernourished
  - 146 million children suffer from insufficient food intake
  - Regional differences:
    - China/Latin America 'have made progress'
    - Bangladesh/SE Asia have a significant problem
    - Rates of undernourishment in SE Asia declining
    - In Africa rates of undernourishment continue to rise
  - Reasons for situation in Africa – Aids/Conflict/Drought/Worsening Agricultural situation.
- 'To what extent' – a global problem?
- Significant differences in LEDCs
  - Limited problem in MEDCs
  - Over-nutrition a growing problem in many areas.
- (b) (i)
- Natural environments could be considered at different scales
  - Some understanding of ecosystems and links to climate
  - Idea of growing capacity linked to environments
  - Examples might be extreme – semi-deserts etc
  - Candidates might consider artificial environments and the modifying effect of technology.
- (ii)
- To what extent implies a relative judgement
  - Might consider a range of agricultural systems from subsistence to highly commercial
  - 'Technology' can be seen in terms of infrastructure, machinery, management etc
  - 'Technology' can be seen in a variety of ways and scales, including basic technology/simple irrigation schemes
  - 'Technology' can be seen in scientific terms in relation to the gene revolution.

- 6 (a) Key points identified from resource include:
- Rural-urban differences leading to migration
  - Economic migrants moving to urban areas
  - Idea of core-periphery in economic terms
  - Problems of overcrowding/traffic congestion/pollution/resource shortages
  - Additional ideas could include:
    - range of push/pull migration factors (challenge in rural areas)
    - range of challenges, including housing, services, crime, broader aspects of pollution, unemployment/poverty.
- (b) (i)
- Governments could be MEDC or LEDC
  - Urban changes can be seen in a generic way, with general policy ideas specifically linked to particular challenges
  - Specific elements of change can be considered, eg housing, communication, industrial change, socio-economic deprivation etc
  - Government housing schemes in LEDCs could be an avenue to explore, accept joint government/co operative schemes
  - Examine way(s) implies description of at least two ideas.
- (ii)
- Focus **must** be one MEDC city
  - Impact of economic problems could be considered in:
    - Economic (unemployment/poverty/deprivation)
    - Social (deprivation/social breakdown/crime/education/health issues etc)
    - environmental terms (vandalism/dereliction etc)
  - Links to negative multiplier might be expressed if problems seen in a more holistic way.

- 7 (a)
- If clear understanding of idea **but** MEDC perspective (MAX L2)
  - 'To what extent' implies a relative judgement
  - Key points from the resource include:
    - building tourism developments
    - large scale developments/infrastructure
    - tourism linked to general development plans
    - links to employment opportunities
    - links to foreign exchange/balance of payments
    - need to encourage 'high spend' tourism.
  - Additional examples/ideas can be brought in from other locations
  - 'Extent' could be considered by comparing countries or considering the balance of opportunities within countries
  - The economic/environmental balance could be considered, although the key to the question is 'economic development'.
- (b) (i)
- Essentially about demand and the influences upon demand
  - Leisure and/or tourism can be considered
  - The scale can vary between local facilities and global tourism
  - 'Provision' can be seen as 'demand led' or in broader context (increasing wealth allowing governments to invest more in leisure facilities etc)
  - Improvements in living standards may be considered in terms of time or access (car ownership, improved infrastructure etc).
- (ii)
- 'Is always a balance' could be translated as 'should be a balance'
  - Understanding that tourism is often about an interaction with the environment
  - Some appreciation that tourism often damages environments for short-term economic gains
  - Some types of tourism (cities) have limited environmental impacts
  - Idea of ecotourism/sustainable tourism being more sensitive to the environment.

- 8 (a)
- Both 'negative and positive' observations expected. Balance not required at lower levels
  - Examples might suggest variation of impact according to factors such as:
    - location
    - type of industry
    - companies involved.
  - Focus may be individual (labour/incomes/exploitation) and/or national (general development/balance of payments/pollution)
  - Key points from resource include:
    - cheap wages
    - long working hours
    - close control by transnationals
    - poor safety regulations
    - generally poor conditions
    - idea of 'sweatshops'
    - clear link to employment opportunities
  - Response may focus on particular industries (tourism) or individual countries
- (b)
- (i)
- 'To what extent' implies some relative judgement
  - Changes in communications could be interpreted widely and include telecommunications and transport
  - Economic activity could focus on business/trade/movement/global continuum/shrinking world idea
  - Detailed focus on the globalisation of one industry might provide a sufficiently complex response.
- (ii)
- A transnational corporation suggests one major corporation, however, it may be divided into different company 'names'
  - 'Describe' suggests some spatial knowledge. This could be:
    - general (LEDC/MEDC)
    - specific in relation to particular countries
  - 'Explain' could be considered in relation to a number of factors including cost structures, markets, political influences etc
  - Consideration of how different parts of an organisation are located in different areas (outsourcing etc) may be a useful approach.



## 2691 – Issues in the Environment

	Question	AO1	AO2	AO3	AO4	TOTAL
<b>CANDIDATES ATTEMPT ONE QUESTION</b>	1(a)	8	3	3	6	<b>20</b>
	(b)	13	6	6		<b>25</b>
	2(a)	8	3	3	6	<b>20</b>
	(b)	13	6	6		<b>25</b>
	3(a)	8	3	3	6	<b>20</b>
	(b)	13	6	6		<b>25</b>
	4(a)	8	3	3	6	<b>20</b>
	(b)	13	6	6		<b>25</b>
<b>CANDIDATES ATTEMPT ONE QUESTION</b>	5(a)	8	3	3	6	<b>20</b>
	(b)	16	6	3		<b>25</b>
	6(a)	8	3	3	6	<b>20</b>
	(b)	16	6	3		<b>25</b>
	7(a)	8	3	3	6	<b>20</b>
	(b)	16	6	3		<b>25</b>
	8(a)	8	3	3	6	<b>20</b>
	(b)	16	6	3		<b>25</b>
		<b>AO1</b>	<b>AO2</b>	<b>AO3</b>	<b>AO4</b>	
		<b>(45)</b>	<b>(18)</b>	<b>(15)</b>	<b>(12)</b>	<b>TOTAL 90</b>
		<b>KNOWLEDGE</b>	<b>UNDERSTANDING</b>	<b>APPLICATION OF UNDERSTANDING</b>	<b>SKILLS AND TECHNIQUES</b>	

# Grade Thresholds

Advanced GCE (Subject) (Aggregation Code(s))  
January 2008 Examination Series

## Unit Threshold Marks

Unit		Maximum Mark	A	B	C	D	E	U
2687	Raw	90	54	48	43	38	33	0
	UMS	90	72	63	54	45	36	0
2688	Raw	90	70	63	57	51	45	0
	UMS	90	72	63	54	45	36	0
2689	Raw	60	43	39	35	31	27	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	70	63	56	49	42	0
	UMS	90	72	63	54	45	36	0
2692	Raw	120	-	-	-	-	-	-
	UMS	120	96	84	72	60	48	0

## Specification Aggregation Results

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

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

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

	A	B	C	D	E	U	Total Number of Candidates
3833	23.33	46.67	70.00	83.33	96.67	100.00	30
7833	0.00	0.00	100.00	100.00	100.00	100.00	1

## 31 candidates aggregated this series

For a description of how UMS marks are calculated see:

[http://www.ocr.org.uk/learners/ums\\_results.html](http://www.ocr.org.uk/learners/ums_results.html)

Statistics are correct at the time of publication.

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