GCE

Geography Specification B

Mark Schemes for the Components

June 2008

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Question			Expected Answers	Mks	Rationale
1	(a)	**Study Fig. 1, which shows the main air masses affecting the British Isles. Compare the weather brought by Polar Continental air masses in winter with the weather they bring in summer.**	Indicative: • Summer – dry, clear skies or cumulus, warm but fresh for time of year, sunny, gentle winds, fog along east coast • Winter – depends on sea track – snow along east coast, clear skies or stratus, cold nights with frost, fog over the north sea, strong easterly winds, cold days with wind chill. **Level 3 (8 – 9 marks)** A clear comparison in depth and detail of at least two features of the weather. Top level answers will appreciate the long v short sea track differences in winter. **Level 2 (5 – 7 marks)** A sound comparison of at least two features in depth or a range of features with little detail. Little, if any, appreciation of long v short sea track. **Level 1 (1 – 4 marks)** A basic comparison with little or vague detail of a limited range of weather features eg warm v cold. Comparison may be poor or merely two separate lists.	9	Many confuse air masses with pressure systems so max L1 Explanation is not required so no credit but an appreciation of source region conditions influencing the air mass conditions is worth some credit but not above L1. If no comparison then maximum L2. Two features compared will suffice eg temperature and precipitation.

Question			Expected Answers	Mks	Rationale
	(b)	**Suggest why Polar Maritime and Tropical Continental air masses may bring different types and amounts of precipitation to the British Isles.**	Indicative: • PM – brings heavy rain all year as picks up a lot of moisture from the ocean and becomes more unstable as it moves south or crosses land in summer. Can bring snow in winter if ground sufficiently cold following prolonged anticyclonic cooling. • TC – brings little rain as from dry land + becomes more stable as it moves over cooler land/sea. Can bring fog. May bring thunderstorms and hail in summer due to rapid uplift over hot land. **Level 3 (8 – 9 marks)** Detailed explanation of both type and amount differences between the two air masses with reference to both source region conditions and changing stability as the air masses move over the British Isles. **Level 2 (5 – 7 marks)** Clear explanation of both type and amount differences between the two air masses with some reference to both source region conditions. At this level, answers may be unbalanced between the two air masses or type/amount. **Level 1 (1 – 4 marks)** A basic or limited explanation of either type or amount probably based on their source regions. Knowledge of the air masses may be limited.	9	Many confuse this with atmospheric systems – max L1 Purely description of conditions – Max L1 Those that explain both amount and type of precipitation – higher levels response.

Question			Expected Answers	Mks	Rationale
	(c)	**With the aid of named examples, explain how human activities can lead to global warming.**	Indicative: Human activities could include power production, transport burning fossil fuels, industrial fumes, agriculture and production of methane etc, forest clearance, settlement producing fumes and water vapour. Concept of greenhouse gases being produced that let sun's short wave radiation rays in but not letting out the re-radiated long wave radiation. Clear stress on linking various types of human activities to production of these gases. **Level 3 (10 – 12 marks)** Detailed range of activities well linked to the production of greenhouse gases. Clear understanding of the cause of global warming. **Level 2 (6 – 9 marks)** A range of activities (at least 2) linked to the production of greenhouse gases. Some understanding of the cause of global warming. **Level 1 (1 – 5 marks)** Limited or vague understanding how a limited range of human activities contribute to the production of greenhouse gases. At this level, many may confuse global warming with the destruction of the ozone layer. Maximum top of level 2 if no named examples.	12	Max L1 if only given concept behind global warming (greenhouse effect) with no linkage to human activities. Max L2 – if only consider human activities with little linkage to global warming. No credit for destruction of the ozone layer. Named examples refers to locations, places etc not examples of activities.
			Total	**30**	

Question			Expected Answers	Mks	Rationale
2	(a)	**Study Fig. 2, which shows two channel cross-sections. Describe the differences between the characteristics of the two channels.**	Indicative: Cross-section area the same = 32m² Wetted perimeter A = 16m B = 20m Hydraulic radius A = 2 B = 1.6 Channel A is more efficient. **Level 3 (8-9 marks)** Detailed list of differences with clear attempt to calculate the HR or/& efficiency figures. **Level 2 (5-7 marks)** Clear list of differences quoting figures from the diagrams but no calculation of Hydraulic radius or/& efficiency figures. **Level 1 (1-4 marks)** Limited or vague description of the deep v shallow type response. No or little reference to the actual channels.	9	Credit reference to differences in velocity, load etc ie channel A is likely to have faster flow, more bedload, larger bedload and being eroded as a channel. No credit for flooding likelihood but credit indication of where channel might be in the long section of a river.
	(b)	**With the aid of diagrams, explain the formation of two different river landforms.**	Indicative: This clearly depends on the landforms. Expect waterfalls, meanders (river cliff, slip off slope), ox-bow and levees to be popular. Scale is not important as it is self restricting eg slip off slope v delta. The stress is on explanation of its formation 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 (be wary of valley features).	9	

Question			Expected Answers	Mks	Rationale
			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.		Or clear diagrams with vague explanation.
	(c)	**For a named river, explain how the channel has been managed to control flooding.**	Indicative: the stress is on the channel and reducing flood risk so ideas could include: • changing cross-sections = raising levees, channel widening, dredging, reducing channel friction; • changing long-section = dredging, dams and reservoirs; • changing plan = diversions, canalisation, straightening channels. **Level 3 (10 – 12 marks)** Detailed explanation covering either one form of management in depth, or a range of ideas in less detail, of the river channel, well supported with detailed exemplification. **Level 2 (6 – 9 marks)** Clear explanation of one or more methods of reducing the channel's flood risk with some limited exemplification.	12	If only one form of management eg Dam then max top L1 If ignore channel eg afforestation then no credit If more than one river credit the more detailed one.

Question			Expected Answers	Mks	Rationale
			Level 1 (1 – 5 marks) Limited or vague explanation or largely descriptive with little exemplification. Not well linked to reducing the flood risk or based largely outside the channel eg afforestation. Maximum top of level 1 if no named river.		
			Total	**30**	

Question			Expected Answers	Mks	Rationale
3	**(a)**	**Study Fig. 3, a photograph of a coastal landscape. Identify and describe the coastal landforms shown.**	Indicative: Features include: beach with tide lines, streams sinking into beach, shingle at top of beach, dune complex in the background; Bay and headland; Spit; Raised beach and old cliff line; Current cliff line. **Level 3 (8 – 9 marks)** A clear description in depth and detail of at least two coastal features. Top level answers will refer closely to the photo. A well labelled sketch could be sufficient to reach this level. **Level 2 (5 – 7 marks)** A sound description of at least two coastal features in depth or a range of features with little detail. Limited reference to the photo. **Level 1 (1 – 4 marks)** A basic description with little or vague detail of a limited range of coastal features eg beach.	9	If merely list features then one mark per feature. If no description then max level 2. Description should tie into the photograph eg locations, sizes, materials etc. No credit for explanation.
	(b)	**Suggest why the gradient of beaches may vary.**	Indicative: Gradient may vary with: the nature of the material eg sand v pebbles v cobbles; marine processes at work eg wave type, tides, storms etc; other factors including human activity, vegetation, wind. **Level 3 (8 – 9 marks)** Detailed explanation of 2 or more reasons well linked to differences in beach gradient.	9	L3 key is that there is clear cause-effect between a factor and gradient. Warning: many confuse the effects of constructive and destructive waves – do not negatively mark.

Question			Expected Answers	Mks	Rationale
			Level 2 (5 – 7 marks) Clear explanation of at least 2 reasons linked to differences in beach gradient. **Level 1 (1 – 4 marks)** Limited or vague explanations or largely descriptive of one or more reasons poorly linked to differences in beach gradient.		
	(c)	**For a named area of coastal wetland ecosystem that you have studied, explain how and why it has been managed.**	Indicative: Clearly the exact detail will vary with the choice of example. How – could include grazing, embanking (or removal of banks as in Essex), ecosystem management, protection (eg as an SSSI) etc. Why – is likely to be better known and could include the need for coastal protection as sea level rises (wetlands are good absorbers of wave energy), desire to protect wildlife including plants and birds, reduce impact of farming, industry and settlement on the ecosystem. **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 of management schemes or detailed explanation of either how or why 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.	12	Dunes, spits, cliff etc are not wetlands so max L1 You can credit groynes etc that protect a sheltering strip of beach but unlikely to go beyond L1. In how allow – restrict access, use boardwalks, education noticeboards, location of car parks etc. Coastal can extend someway inland eg Norfolk Broads.

Question			Expected Answers	Mks	Rationale
			Maximum top of level 1 if no named wetland.		
			Total	**30**	

Question		Expected Answers	Mks	Rationale
4	**'Rock structure is as important as climate in the formation of river and coastal landscapes.' Discuss this view by referring to one or more named areas that you have studied.**	Indicative: Rock structure could include: rock type, faults, beds, folds, joints etc as well as the trend or dip of the structure eg concordant or discordant coastlines. Climate could include precipitation, weathering, wind, temperature etc. Climate implies longer term aspects such as climatic change eg glacial or a pluvial period. Ideally, the candidates will quote examples of where rock structure is more important and ones where climate is eg youthful v old age landscapes or make the point that it could vary with scale, location, type of structure/climate and vary over time. **Level 5 (27-30 marks)** A detailed, well-structured, logical and balanced essay with a detailed evaluation and understanding of the relevant impacts on both systems with good exemplification from different areas of study. Some appreciation that the importance 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 relevant impacts on both 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 importance. The answer is well organised.	30	

Question	Expected Answers	Mks	Rationale
	Level 3 (15-20 marks) A clear understanding and reasonable use of appropriate terminiology. Clear understanding of cause-effect but may lack balance between systems or factors. Some evidence of structure but limited conclusions. Maximum top of level 3 if only one 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 either or both of the factors. Very little understanding of cause-effect with very limited geographical knowledge, or examples. Poor structure with obtrusive errors.		Or if only structure or climate referred to.
	Total	**30**	

Question			Expected Answers	Mks	Rationale
5		**With reference to one or more named areas, explain how prolonged droughts impact on physical systems and human activities.**	Indicative: Drought can impact on physical systems by reducing the water input eg rivers dry up etc and by interrupting the hydrological cycle and so atmospheric systems. Locally it could impact on coastal etc ecosystems. Also prolonged drought leads to modification of these systems to better manage drought. Human activities will probably be better appreciated (as topical!) including impacts on water supplies, buildings (subsidence), industry and power production, leisure (bans on swimming pools), agriculture (lack of fodder, falling yields) as well as associated hazards eg forest fires. **Level 5 (27 – 30 marks)** A detailed, well-structured, logical and balanced essay with a detailed evaluation and understanding of the relevant drought impacts on both systems and human activities with good exemplification from different areas of study. Some appreciation that the importance 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 relevant impacts on both 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 and attempts to evaluate the importance. The answer is well organised.	30	Credit those that point out impact of drought may vary with location eg LEDC v MEDC and those that refer to 'systems'. May refer to other physical systems eg ecosystems, hydrology etc.

Question			Expected Answers	Mks	Rationale
			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. Maximum top of level 3 if only systems or human activities 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.		
			Total	**30**	

2688 Human Systems and their Management

Question			Expected Answers	Mks	Rationale
1	(a)	**Use Fig. 1 to describe the patterns of jobs created by foreign investment in the UK in 2005.**	The map shows the number of jobs created in the regions and the major overseas investors. Candidates need to tease out some pattern of where these jobs are located and can consider ideas such as the size of the regions, eg Scotland has by far the largest area but not the most new jobs. Although the USA is the major investor, the EU added together at least equals the USA. Emerging economies of India and China manage to feature in the top ten countries. **Level 3 (8 – 9 marks)** Both jobs and the investor patterns are clearly identified and evidence from the resource is quoted to give good support to patterns described. **Level 2 (5 – 7 marks)** A little pattern identified for either jobs or the investment (lower end) or both (higher end). Clear pattern for one only, up to higher end. May find some pattern, eg a north/south, core/periphery, but not support it well, or note there are several EU countries. **Level 1 (1 – 4 marks)** Some figures read off in no organised manner (lower end), perhaps taking extremes at higher end. Neither location of jobs nor the investors given beyond an ultra simple pattern.	9	If candidate states there is no pattern, this can be credited provided evidence to support this is given. Evidence may be in absolute terms (giving figures) or relative terms (most, first, second, least etc).

Question			Expected Answers	Mks	Rationale
1	**(b)**	**Explain in what ways changing markets influence the locations of economic activities.**	Size, wealth, amount of disposable income, proximity, freshness, and transport costs are the most likely lines to be followed. Good answers may discuss the need to respond to rapid change in fashions and demand, but this is not necessary for full marks. It is likely that some candidates will want to discuss LEDC incentives and the benefits to host countries. Credit can only be given here, beyond the lowest level, if some idea of a growing home market is identified. **Level 3 (8 – 9 marks)** Ways/factors are identified and at least two are explained adequately if not fully. Although examples are not required, if used accurately, are likely to place the answer in this range. **Level 2 (5 – 7 marks)** One or more relevant ways/factors are identified and at least one (lower end, more for higher end) is used to explain a little but not extensively – clear gaps in the reasoning. **Level 1 (1 – 4 marks)** One or more relevant ways/factors may be identified but not explained. Answers considering explanations involving factors other than markets will fall in this range.	9	A way may be size etc. or different types of location, or different approaches to markets.

Question			Expected Answers	Mks	Rationale
1	(c)	**For one named country, explain the economic and social issues arising from economic change.**	This will vary enormously depending on the country chosen. Most likely choices are LEDCs with growing manufacturing. New service jobs, such as call centres in India may feature. It may be the decline of manufacturing and switch to tertiary in MEDCs. Good detail on the issues will distinguish high level answers. Accept wider world issues if linked to change in chosen country. **Level 3 (10 – 12 marks)** Economic change is clear, if brief. Both economic and social issues explained in some detail. Several place specific references made. **Level 2 (6 – 9 marks)** A valid country given along with some indication of economic change. Some coverage of economic and social issues, but one may be brief and undetailed, or very good detail on one only with other missing. Some place detail at upper end but with big gaps. Valid but vague place detail at lower end. **Level 1 (1 – 5 marks)** A country named and mention of economic change. Very general answers and 'more industry' type will be at this level. Very brief on both economic and social issues, no more than named, (upper end), or brief on only one (lower end).	12	Good generic accounts will be in L2 but no more than 8. If environmental introduced, it must impact on economic or social in some way.
			Total	**30**	

Question			Expected Answers	Mks	Rationale
2	**(a)**	**Use Fig. 2 to describe the changing accessibility of Norwich from nearby settlements.**	The map shows settlements around Norwich, giving some idea of distances, directions and the relative size of settlements in the surrounding rural area. The travel information shows change between 1976 and 2006, but no overall clear patterns emerge, so a good range of variations in change should be reported for high marks. **Level 3 (8 – 9 marks)** A clear discussion of changing accessibility using names of places, with some attempt to organise, eg related to either distance from Norwich, size or directions. Most of these are linked to comments on changing accessibility by both time and frequency. Explanation not needed, but comments related to private/public transport, or changing commuting/residential patterns can gain credit at this level. **Level 2 (5 – 7 marks)** Some description of changing accessibility referring to places, but may not refer to distances, (or size or direction). Some of the description linked to comments on changing accessibility either by time or frequency, or undeveloped if both. Simple linkage of car/bus relationship can reach this level. **Level 1 (1 – 4 marks)** Isolated points made on changing accessibility, but with poor support from any information from the resource. May be just reading off information from the resource rather than using it.	9	Credit well references to such ideas as central place, commuting patterns, counter-urbanisation, sphere of influence.

Question			Expected Answers	Mks	Rationale
2	**(b)**	**Explain why gentrification is taking place in many urban areas.**	There is a variety of reasons why some areas are becoming gentrified. Candidates can legitimately take one reason and explain it in great depth, or cover more than one in less depth. If covering more than one, then reasoning should be clear, if not detailed, for more than one. Most likely are; local authority initiatives to improve run down areas; private enterprise schemes to develop properties for profit; or motivation from individuals wishing to live closer to urban centres, all of which improve buildings within the same locality. **Level 3 (8 – 9 marks)** Clear process of gentrification is described and at least one reason is explained well. Explanation is at the heart of the answer. Case studies are not required, but if included should include clear explanation for this level. **Level 2 (5 – 7 marks)** Some processes of gentrification are described, and some parts of reason(s) are presented. These will be fragmentary and may become lost or sidelined. Place detail is welcome, but not essential. Some examples might be described quite well without much explanation. Such answers would fit this level. **Level 1 (1 – 4 marks)** Gentrification may not be understood. Some aspect(s) related to the process is clear (perhaps by chance), but there is little or no indication of why it is taking place.	9	

Question			Expected Answers	Mks	Rationale
2	**(c)**	**For a named urban area, describe and explain the changes in land use on the urban fringe.**	Candidates may describe changing uses that are related to settlement, transport, industry, business parks, recreation or retailing. One alone or a combination can reach full marks. Green belt, greenfield/brownfield debates or planning issues may well be used. Competition between uses, reviving local economies or future demands could be identified. As case studies are required, good place detail, which brings out explanation, can score highly. **Level 3 (10 – 12 marks)** Reference to place is given in good detail. Both the description of the changes, and the explanation of why they are happening, are clear. **Level 2 (6 – 9 marks)** Reference to place is made, with some detail. Either the description of the changes, or the explanation of why they are happening, is underdeveloped, or very brief if both are considered. **Level 1 (1 – 5 marks)** Place detail poor, or a largely generic answer. May be the surrounding rural area, or locations within the existing urban area, but with similar considerations. Both description and explanation will be largely superficial.	12	
			Total	**30**	

Question			Expected Answers	Mks	Rationale
3	(a)	**Use Fig. 3 to describe the patterns of global GDP between 1990 and 2003.**	The upper map shows that prosperity is increasing over the globe, and that rates of growth vary across the world, but only to a small extent. The lower map shows the current (recent) levels of prosperity across the world, and that these vary enormously. The key gives some idea of the range and degree of inequality. Candidates need to use both maps and relate them together to reach high levels. **Level 3 (8 – 9 marks)** Both patterns are soundly identified and good comments on the relationship between the two patterns are made. Some of the poorest or relatively poor are the most rapidly growing (may cite India and China, or possibly Sudan and Mozambique). The richest areas of the world are not the fastest growing, but are in the middle range of the growth spectrum (with some support from N. America, Europe or Australasia). **Level 2 (5 – 7 marks)** Some comments on developed, less developed and intermediate are largely accurate. Some comments on rapidly growing, slow growing and intermediate may also be fairly sound. Lower end answers will only cover one of these or be thin on both. Answers in this level will only relate the patterns to one another to a limited degree at the upper end and not at all at the lower. **Level 1 (1 – 4 marks)** Isolated pieces of information are extracted but not organised. Counties or areas are described in such a way that pattern does not emerge.	9	If a very good relationship between the patterns on the two maps is described, but without reference to any actual regions/named countries, this can be credited up to the top of L2.

Question			Expected Answers	Mks	Rationale
3	(b)	**Explain the influence of the changing status of women on the rate of population growth.**	Answers are likely to show that the changing status is likely to be giving women the opportunity to pursue careers rather than be child bearers. Points are likely to be made about the length of education, time taken to establish progress in their career, the kinds of work being taken on are unsuited to being combined with child bearing; that educated women have more informed choice; affluence and aspiration are being modified. These will be related to the age of marriage, length of time available for child bearing, and women/child ratios, birth rates, rate of population growth. All clearly related to population growth. **Level 3 (8 – 9 marks)** More than one influence clearly identified. The links between changing status and the rate of population growth are clear. **Level 2 (5 – 7 marks)** One or more influences identified but the detail is only clear for one, or more superficial for a range of influences. A less likely alternative is that some place detail is given but the explanation of the influence of the changing status is poorly linked to the rate of population growth. **Level 1 (1 – 4 marks)** One or two influences may be identified but the explanation, if given, is unclear or over simplistic.	9	Influence may be careers, time, different impacts – birth rates, number of children.

Question			Expected Answers	Mks	Rationale
3	(c)	For one or more named countries, explain in what ways population trends and urbanisation may be linked.	Most likely answers will show that rapidly growing populations have high rates of urbanisation. Most likely explanations will show that population pressure in rural areas drives people out. Demand for labour in increasingly prosperous urban areas, requires large numbers of people. The most fertile age groups tend to end up in cities, accelerating their population growth. May also indicate that urban lifestyles encourage smaller families. Detailed place specific references are needed for full marks. Credit well answers that link population trends and (counter)urbanisation in MEDCs. **Level 3 (10 – 12 marks)** The whole focus of the answer is on linkages between population trends and the degree/rate/stage of urbanisation. A full answer needs references to one or more specific places and good explanation. **Level 2 (6 – 9 marks)** Valid points about population trends and rate of urbanisation are made. These will be fairly limited in both number and depth. Some linkage made. Places referred to, but detail may be vague. **Level 1 (1 – 5 marks)** Some comments on population trends and/or comments on urbanisation are made, but no real linkage between the two is made clear. Place references may be missing or lacking detail beyond a named country. Good generic answers with some validity may reach the top end of this level.	12	Candidates may start with urbanisation and show how it leads to population trends.
			Total	**30**	

Question			Expected Answers	Mks	Rationale
4		*'Once population growth is under control, urban problems can be solved and economic development is increasingly possible.'* **How far do you agree?**	Some link between rapid population growth and both urban problems (largely increases them) and economic development (often a handicap to growth) needs to be established. Then examples of different degrees of these (or counter examples) should be introduced. A full answer should consider more than one country. In each there should be sound discussion of population growth (answers question more easily by degrees of success over control) along with success over urban problems and economic growth. These should be sufficient to support some assessment of 'how far'. **Level 5 (27 – 30 marks)** A fully comprehensive answer need not be presented, but each of the three elements soundly addressed. Sufficient reasoning supported by place detail to give valid basis for 'how far'. **Level 4 (21 – 26 marks)** Clear links between two of the three elements identified with some reference to more than one country or time for one country. Clear imbalance evident or gaps leaving the answer incomplete. 'How far' considered, but imbalance or gaps leaving some of conclusions unsupported. **Level 3 (15 – 20 marks)** At least two of population growth, urban problems and economic growth referred to, with some links made and valid reference to at least one country. **Level 2 (9 – 14 marks)** Some points raised, with some relevance established but given very poor, if any, country context. Alternatively, valid material about a country raised but not used to answer the question.	30	Cases considered may be different countries, different times within a country, or different parts of a country. Provided they are clearly related to urban areas or economic development, social problems can be credited.

			Level 1 (1 – 8 marks) One or more isolated, potentially relevant points raised, but not really explained and given very poor, if any, country context.		
			Total	**30**	

Question			Expected Answers	Mks	Rationale
5		*'Urban problems often arise as a result of population migration.'* **How far do you agree?**	Some population movements and urban problems need to be considered. The experience of more than one country should be introduced. From these there should be sufficient evidence to make an assessment of 'how far'. **Level 5 (27 – 30 marks)** A fully comprehensive answer need not be presented, but each of the two elements should be soundly addressed. Sufficient reasoning provided, supported by place detail, to give a valid basis for 'how far'. **Level 4 (21 – 26 marks)** Clear links between the two elements identified with some reference to more than one country or urban area. Clear imbalance evident or gaps leaving the answer incomplete. 'How far' considered, but imbalance or gaps leaving some of conclusions unsupported. **Level 3 (15 – 20 marks)** Each area of population movements and urban problems are referred to, with some links made and valid reference to at least one country or urban area. **Level 2 (9 – 14 marks)** Some points raised, with some relevance established but given very poor, if any, country context. Alternatively, valid material about a country raised but not used to answer the question. **Level 1 (1 – 8 marks)** One or more isolated, potentially relevant points raised, but not really explained and given very poor, if any, country context.	30	Rather than more than one country, more than one urban area needs to be considered. Different times for same city may give basis for 'how far'.
			Total	**30**	

2689 Geographical Investigations 1

Notes for Examiners

Report of Personal Enquiry and Questions 1 to 3

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

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

The Report

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

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

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

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

Hypothesis, Design and Presentation

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

The report is well structured and fluently expressed.

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

The report is presented in a clear and intelligible manner.

Report of excessive length will not enter Level 3.

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

The report displays generally correct spelling, punctuation and grammar.

Data Collection and Outcomes

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

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

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

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

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

Evaluation and Understanding

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

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

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

Questions 1 to 3

Credit answers that are given in terms that *extend* the Report on the Personal Investigation.

1   **Explain how collecting your data at different times could change the results of your investigation.**

Indicative content:
- Impact of time related factors can be:
    - Changing aspects of investigation that had gone well would weaken results.
    - Changing aspects of investigation that had gone less well would strengthen results.
- Effects on results, including the quality of data collected:
    - Data is or is not representative of the population and results do or do not match with expectations according to geographic theory/hypotheses.
    - Different people and equipment used to carry out data collection.
    - Different sampling regime is used.
    - Comparison between the two sets of results may be possible.
- Time related factors: need to tailor data collection according to objectives of investigation, and quality of results may be affected:
    - Time of day: affects sample size and composition.
    - Day of week: affects sample size and composition.
    - Time of year = season: weather affects ability to measure data accurately; climate affects water in rivers; tides affect beach Investigations; tourist/visitor flows vary throughout year; sample size (hours of daylight available).

> **The following content is applied to each level**:
> - The discussion relates to the personal enquiry.
> - The relevance of the time related factors.
> - The way changing the time related factors can affect the results.

Level 5 (18-20 marks)
Either   Effect on results of changing **two or more** time related factors discussed **well**.
Or   Effect on results of changing **more** time related factors discussed **in less depth**.
The answer is logically ordered and well presented.

Level 4 (14-17 marks)
Either   Effect on results of changing **two or more** time related factors discussed **quite well**.
Or   Effect on results of changing **more** time related factors discussed **in less depth**.
The answer is generally logically ordered and well presented.

Level 3 (9-13 marks)
Either   Effect on results of changing **two or more** time related factors discussed **moderately well**.
Or   Effect on results of changing **more** time related factors discussed **in less depth**.
There are lapses in the logic and presentation of the answer.
Must specify how time changes results.

Level 2 (5-8 marks)
Either   Effect on results of changing **one or more** time related factors discussed **adequately**
Or   Effect on results of changing **more** time related factors discussed **in less depth**.
There are noticeable gaps and/or errors in the answer.

Level 1 (1-4 marks)
Effect on results of changing **one or more** time related factors discussed **in a basic manner**.
There are considerable gaps and/or errors in the answer.

2   **Discuss why it would be difficult to compare your results with those of a similar investigation carried out by someone else in a different location**.

Indicative content: various approaches can be used:
- Similar investigation: this suggests that the investigation is unlikely to – or cannot – be the same/identical due to:
  - Different time of year/day/weather conditions.
  - Different variables collected.
  - Different sampling method.
  - Different data collection method.
  - Different method of analysing data.
  - Different aims.
- Different location:
  - Difficult to ensure control, eg depending on what is being compared, may wish to keep all but one or two variables constant at both sites, eg vegetation and rock type, aspect, size of settlement, weather conditions, season, time of day.
  - May not be practically possible to use same sampling and data collection techniques, eg due to access; one river may not be deep enough so have to use floating object for velocity.
- Someone else:
  - May not know what methods the other person used (in terms of the investigation undertaken, as listed above) therefore it is not possible to make a straightforward/valid comparison.
  - May not have been accurate.

The following content is applied to each level:
- The discussion relates to the personal enquiry.
- The relevance of the difficulties is discussed.
- The discussion of a different location.
- The acknowledgement that the other investigation is unlikely to be the same/identical.
- The acknowledgement that the other investigation is by someone else.

Level 5 (18-20 marks)
Either   **Two or more** factors causing difficulties in comparison are discussed **well**.
Or   **More** factors are discussed **in less depth**.
The answer is logically ordered and well presented.

Level 4 (14-17 marks)
Either   **Two or more** factors causing difficulties in comparison are discussed **quite well**.
Or   **More** factors are discussed **in less depth**.
The answer is generally logically ordered and well presented.

Level 3 (9-13 marks)
Either   **Two or more** factors causing difficulties in comparison are discussed **moderately well**.
Or   **More** factors are discussed **in less depth**.
There are lapses in the logic and presentation of the answer.

Level 2 (5-8 marks)
Either   **One or more** factors causing difficulties in comparison are discussed **adequately**
Or   **More** factors are discussed **in less depth**.
There are noticeable gaps and/or errors in the answer.

Level 1 (1-4 marks)
                   One or more factors causing difficulties in comparison are discussed **in a basic manner**.
There are considerable gaps and/or errors in the answer, eg no reference to the differences between the sites; no reference to the other investigation being conducted by someone else; no reference to "similarity" as opposed to "same/identical" investigation.

3   **Suggest and justify additional methods of data analysis that would improve your investigation.**

Indicative content:
- Brief statement about techniques used – could say why they were inadequate.
- Spearman's in addition to scattergraph: strength of relationship, use of significance level.
- Mann-Whitney: determine whether two data sets from same population or whether significant different.
- Descriptive statistics (mean, mode, median, standard deviation): show various types of averages and spread of data. May have done none or some of them.
- Graphs: Scattergraph, pie chart, bar graph, dispersion diagram, line graph, cross-section/profile: all have strong visual interpretation characteristics; each has own uses, eg relationships, relative proportions, anomalies identifiable, multiple variables comparable, spatial patterns, mode.
- Use of maps: placing data on maps or using information from maps would improve understanding.
- This is not about more data collection unless specifically in terms of: indicating new data that is collected and how it is used for a new type of data analysis; OR more of same variable that enables an additional analytical technique to be used.

The following content is applied to each level:
- The discussion relates to the personal enquiry.
- The relevance of methods of data analysis is discussed.
- The way that the additional methods of data analysis would improve the investigation.

Level 5 (18-20 marks)
Either   **Two or more** additional methods of data analysis to improve investigation are discussed **well**.
Or   **More** additional methods of data analysis are discussed **in less depth**.
The answer is logically ordered and well presented.

Level 4 (14-17 marks)
Either   **Two or more** additional methods of data analysis to improve investigation are discussed **quite well**.
Or   **More** additional methods of data analysis are discussed **in less depth**.
The answer is generally logically ordered and well presented.

Level 3 (9-13 marks)
Either   **Two or more** additional methods of data analysis to improve investigation are discussed **moderately well**.
Or   **More** additional methods of data analysis are discussed **in less depth**.
There are lapses in the logic and presentation of the answer.
Max top Level 3 for indirect responses dominated by new data collection and subsequent impact on results without specifying the method of analysing.

Level 2 (5-8 marks)
Either   **One or more** additional methods of data analysis to improve investigation are discussed **adequately**.
Or   **More** additional methods of data analysis are discussed **in less depth**.
There are noticeable gaps and/or errors in the answer. May confuse more data collection with data analysis.

Level 1 (1-4 marks)
         One or more additional methods of data analysis to improve investigation are discussed **in a basic manner**.
There are considerable gaps and/or errors in the answer. Only looks at more data collection and not data analysis.

4   **Study the Ordnance Survey map extract of Witney and the surrounding area.**
      Choose one of the following investigations:
      Either (i)   Contrasting microclimates.
      Or   (ii)   Shopping patterns in the area shown by the map.
      With reference to specific map locations:
      (a)   Identify the aims and hypotheses of the investigation.
      (b)   Describe and justify how you would plan and carry out the data collection.

Indicative content:
(a) (i) and (ii) Aims and hypotheses
- Aims should state what the investigation is seeking to achieve or find out in terms of geographical theory / general understanding.
- Hypotheses: preferably state null and alternative hypotheses. One or two hypotheses sufficient for an AS investigation.

(b) (i) Contrasting microclimates.

Plan and carry out data collection
Primary field collection data:
- Accessibility and safety of sites.
- Site selection: use of map to select contrasting microclimates, eg two or more types of vegetation/land use, different aspects, urban/semi-urban/rural.
- The contrasting microclimates could be separate areas on the map or could be clearly identifiable along one transect or over one area.
- Sampling methodology for microclimate: transects (systematic, random, stratified), area sampling. Number of data collection points at each site.
- Selection of variables, eg wind speed and direction, temperature, humidity, precipitation, cloud cover, sunshine. Also associated variables, topography, altitude and land use.
Secondary data:
- Maps to assist with site selection.
- Environment Agency/University/land owners may have data for other times of year, at more transects/areas.
- Meteorological Office: selection of sampling day(s); data to help interpret results.
Carry out data collection, including measurement techniques:
- Pilot survey.
- Carry out data collection: if using more than one site, field data collected at same time if possible.
- Place markers or make clear note of measurement sites ready for return visits.
- Method of measuring microclimate data (wind speed and direction, temperature, humidity, precipitation, cloud cover, sunshine) is described (instruments etc).
- Use of website and/or published data to extract relevant information.

(b) (ii)   Shopping patterns in the area shown by the map.

Plan and carry out data collection
Primary field collection data:
- Accessibility and safety of sites.
- Site selection: use of map to select appropriate data collection places.
- Selection of shopping related variables, eg shopping destinations, home locations, order of goods purchased, frequency of purchasing different order goods, amount of money spent at different locations on different order goods, main reason for trips, socio-economic data.
- Likely to be based on questionnaires to shoppers (potential for cross-tabulation between variables = higher level response); may also have questionnaires for businesses asking about customer behaviour.

- Sampling methodology for variables: almost certainly a different approach depending on settlement size:
  - Systematic/random/stratified sampling: selection of sampling locations in more than 1 settlement (at shops or at homes); if at shops, also have to decide about systematic/random/stratified sampling of people at the sampling location.
  - Time(s) when data collected (day, week).
  - At each site: number of data collection points; sample size.
- This is not about car park surveys (irrelevant).

Secondary data:
- Maps to assist with site selection.
- Local authority, eg education department;
- Chamber of Commerce.
- Yellow pages.

Carry out data collection:
- Pilot survey.
- Carry out data collection: eg consider timing or weather or logistic issues.
- Use of website and/or published data to extract relevant information.

The following content is applied to each level:
- The discussion refers to the map.
- The clarity of the aims and hypotheses.
- The description and justification of the sampling method and data collection techniques.

Plan and carry out data collection
Level 4 (14-16 marks)
> The method of planning and carrying out the data collection is described and justified **well**.
> The answer is logically ordered and well presented.
> There is good reference to the map.

Level 3 (9-13 marks)
> The method of planning and carrying out the data collection is described and justified **quite well**.
> The answer is generally logically ordered and well presented.

Level 2 (5-8 marks)
> The method of planning and carrying out the data collection is described and justified **moderately well**.
> There are lapses in the logic and presentation of the answer.

Level 1 (1-4 marks)
> The method of planning and carrying out the data collection is described and justified **in a basic manner**.
> There are considerable gaps and/or errors in the answer. Unlikely to be justified.

Aims and hypotheses
Level 3 (4 marks)
> There are well-constructed hypotheses relevant to appropriate aims.

Level 2 (2-3 marks)
> The hypotheses are relevant to the aims, which are mostly appropriate.

Level 1 (1 mark)
> A hypothesis is stated that has little relevance to the aims or the aims are of little or no relevance or aims and hypotheses are vague.

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 includes 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:
- fluctuating numbers of hazards in recent years, the trend is not clear;
- people 'affected' by a disaster have increased from one decade to another
- not all hazards are reported;
- some hazards, especially visually strong hazards are more often reported;
- short-term hazards are more frequently reported; long term droughts are not always reported;
- Asia appears to be the most hazard stricken continent.

Discuss:
- data is quite recent and long term trends impossible to consider;
- the way that hazards are reported is not clear;
- there is a distinction between number of hazards and people affected/economic cost;
- the strength of a hazard is not considered.

   (b)   **(i)**
- Some hazards are more predictable than others.
- The scale of some hazards may make prediction less useful in reducing impacts.
- The prediction of hazards can give the opportunity for modification and preparation.
- Prediction saves lives and money.
- Use of prediction techniques may be more common in developed areas.
- Examples of variations in prediction might be used (Pacific Ocean/Indian Ocean-tsunami warning).

         (ii)
- The financial costs of hazards in MEDCs is often higher – although relative costs are not always considered.
- The human costs (short/long term) are often higher in LEDCs.
- Impacts also vary according to:
  - type of hazard;
  - strength of hazard;
  - regional location;
  - prediction/awareness/perception.

2   **(a)**   Key points identified from the resource include:
- ice cores provide data over very long time periods;
- concentrations of greenhouse gases are the highest for 440 000 years;
- clear evidence of ice-ages and interglacial periods.

           Other potential ideas:
- ice cores are only one evidence base;
- evidence of change does not always suggest reasons;
- patterns of change are not always consistent;
- reasons for change (geologically) are part of the 'natural cycle' – short term are they for different reasons?

   (b)   **(i)**
- Rising sea levels are one effect, but the impact may vary.
- Flooding may be a significant factor in some areas.
- There are a wide range of other potential effects including:
  - changes to climatic patterns;
  - effect on agriculture/food supply;
  - effect on health/diseases;
  - effect on industry/economic possibilities;
  - changes to pattern of hazards.

         (ii)
- Range of potential factors which could be short/long term.
- Factors could be social/economic/environmental.
- Focus might be on specific factors such as transport/agriculture/tourism.
- Extent could be considered in terms of extremes/event management/modification.

3   **(a)**   Key points identified from the resource include:
- oil drilling has significant impacts on the physical environment;
- the storage and movement of oil can cover vast areas of land;
- range of flora/fauna limited anyway – development may put it under more pressure;
- the area is a 'protected' area;
- few people live in the area;
- in other areas development has significantly improved living standards.

To what extent:
- economic development takes in many forms (including tourism);
- the environmental impact varies in terms of the type of development;
- resident populations often have conflicting views;
- sustainable strategies may help to resolve conflict.

    (b)   **(i)**
- Describe <u>and</u> explain implies a clear understanding of process.
- Process can include weathering and glacial processes.
- Features might include pyramidal peaks, arêtes, hanging valleys, glacial trough (U shaped valley), ribbon lakes or individual points about rouche moutonee/striations etc.

              (ii)
- Evaluation implies that some relative judgement has been made.
- 'Management' can be general management of the area or specifically linked to a particular resort.
- Management implies an appreciation of environmental management/sustainability.

4   **(a)**   Key points identified from the resource include:
- drought affects migration patterns in both animal and human populations;
- drought affects animal numbers significantly;
- drought creates conflicts between farmers/wildlife rangers;
- drought has short term and long terms effects on human populations;
- in LEDCs, the reliance on subsistence farming makes food supply, and therefore people, more vulnerable.

Other potential points:
- drought prone areas are only <u>one</u> tropical environment;
- other tropical environments have different hazards;
- even in areas where rainfall is unreliable the impact of drought varies;
- impacts often related to economic security;
- sustainable management may reduce impacts.

     (b)   **(i)**
- An understanding that tropical environments are fragile.
- An understanding that development can be exploitative.
- An appreciation of the concept of sustainable development.
- Examples of sustainable tourism which offer a discussion about the relative influence of ecotourism.

          (ii)
- An understanding that tropical ecosystems are fragile.
- Examples of the types of development and how they operate in tropical areas.
- Specific examples of degradation might include:
  – impacts on flora/fauna;
  – impact on river systems;
  – soil erosion/degradation;
  – pollution or land/water/air.

- Short and long term effects of exploitative development.

5 **(a)** Key points identified from the resource include:
- companies use different means of identifying customer needs;
- companies use data to inform supply decisions;
- competition tends to drive down prices;
- companies have considerable control over products/prices;
- a small number of large companies puts them in a monopoly situation;
- farmers have limited power in negotiating with big business.

To what extent:
- large companies do appear to hold considerable power;
- recent movements have made changes: co-operatives, farmers markets etc.;
- drive/fashion for organic food has had some influence;
- consumer needs change and business has to respond.

(b) **(i)**
- Could be considered in short or longer term.
- Food supply could be seen as an emergency situation/response to a disaster (short-term).
- 'Overcome food supply' problems could be considered in terms of investment projects/aid projects (long-term).
- Examples could come from different scales.
- There is an expectation that specific examples will be used. These could be NGOs or government agencies.

(ii)
- Clear understanding of sustainability.
- Appreciation that agriculture can be exploitative.
- Link to ecosystem ideas and the nature of agricultural systems.
- Might consider the differences between subsistence and commercial agriculture in relation to links to physical conditions.
- Examples of more sustainable commercial agriculture might be considered.

6 **(a)** Key points identified from the resource include:
- Malmo was an industrial port which has gone through a period of decline;
- decline and dereliction created a need for regeneration;
- some parts of Malmo have social/economic problems and issues of deprivation;
- regeneration has improved opportunities (social, economic);
- new industrial, educational, residential areas have been created;
- has attracted younger people to the city;
- regeneration has not affected all areas of the city equally.

Other potential ideas:
- what are the aims of regeneration?
- has regeneration widened the development gap in the area?
- has regeneration heightened social/economic differences and pressures?

(b) **(i)**
- 'Challenges' can be seen in its broadest context.
- Challenges might be unique to LEDCs or common global ideas (traffic management/pollution etc).
- Ideas might include a range of social, economic and environmental ideas, for example:
  - o housing/slum areas;
  - o social facilities;
  - o unemployment;
  - o dealing with waste;
  - o pollution;
  - o traffic/movement;
  - o on-going management of growing population;
  - o crime/safety.

(ii)
- Some appreciation of the idea of the 'sustainable city'.
- The importance of transport both economically, socially and environmentally.
- The 'key to', suggests that there are a number of factors to consider.
- Some degree of evaluation and consideration of how some systems are more effective than others might be expected.

7   **(a)**   Key points identified from the resource include:

- 'Extent' implies an element of evaluation;
- scale of identified development is very large;
- development will have serious impacts on both the environment and local communities;
- the resource represents a fairly classic example of social/environmental conflict;
- damage to local environment may put the area in jeopardy in relation to flood hazards;
- tourism is seen as a significant force for economic development/what are the other options in this area?

To what extent:

- can be considered in any local context – not just LEDC;
- 'extent' may reflect the scale and style of development;
- tourism is often seen as significant to regional and national economic development;
- sustainable management ideas may ameliorate negative impacts of development and reduce conflicts.

   (b)   **(i)**

- The question is concerned with the last 50 years, so historical development of British resorts is not appropriate.
- 'Global' is significant – idea of the 'pleasure periphery'.
- Could be considered in global development phases/or from a UK perspective.
- Explain suggests reasoning – this could include a range of supply and demand factors, including tourism as part of the development process.

         (ii)

- Some notion of the idea of 'resource' in terms of attracting visitors.
- The physical environment can be defined in a number of ways – from basic 'beach/sea' as an attraction to sporting or wilderness environments based on the physical environment.
- 'To what extent' implies relative judgement.
- There are types of tourism for which the physical environment is not significant.
- Examples can be based on active or passive tourism.

8 **(a)** Key points identified from the resource include:
- primary resources are often considered in terms of price and technology;
- primary resources are randomly found but globally traded;
- demand for resources is strongly linked to economic development (mention of India and China);
- impacts on LEDCs can be social and economic/environmental;
- range of opportunities in some LEDCs is limited so primary exports are seen as a major source of income in relation to economic development;
- careful management is required to ensure negative factors and corruption are minimised.

Other potential points:
- reasons for globalisation are based on both supply and demand factors;
- primary production can include raw materials, forestry, agriculture, etc.;
- idea of initial/comparative advantage in economic terms;
- impacts can be positive and negative.

(b) **(i)**
- Both MEDCs and LEDCs should be considered.
- Discuss could lead to a balanced debate of advantages/disadvantages
- 'role played' could be based on a number of possibilities eg:
  o part of a development strategy;
  o aid to rapid development;
  o linked to regional regeneration.
- Major role implies more than just 'jobs' ideas/appreciation of economic multiplier might be considered

(ii)
- Some appreciation of the economic power of TNCs.
- Some appreciation of the structural management of TNCs.
- The goods/services associated with the largest TNCs.
- What influence do TNCs have on supply/price of goods/services?
- Question suggests an element of evaluation.

2692 Issues in Sustainable Development

Notes for Examiners

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Brackets or circles for place or scale references;
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Question 1

On the Insert provided, compare the Arctic and Antarctic regions using the five aspects provided.   **[40]**

Illustrative content: Climatic statistics are given in the RB, together with descriptions of human activities, marine ecology and current management structures. There is also scope for own knowledge in that the landscapes are not directly described, but the maps and explanations given make clear the major comparisons.

	Arctic Regions	Antarctic Regions
Landscape and climate	Ice-covered sea area surrounded by islands and continental tundra regions. --------------------------------------- Warmer with higher precipitation and humidity. +1C - -27C	Continental landmass – mountainous- surrounded by ice shelves. --- Extremely cold and dry- -28C - -60C.
Ecology	Polar bears, caribou etc with tundra vegetation.	Few mosses and lichens. Penguins.
Human activity	Several indigenous peoples eg Inuit with traditional lifestyles. Large cities in Siberia, and oil-based settlements in Alaska etc. Fishing and whaling.	Research stations.
Political and management structures	National governments in Arctic countries, but no agreement yet over North pole.	International treaty.

Level 5 (34-40 marks)
A balanced answer with references to RB and/or own knowledge and good summary of all headings, clearly showing comparisons, or very good answers on most sections.

Level 4 (26-33 marks)
A good answer in most sections showing comparisons and using appropriate examples.

Level 3 (18-25 marks)
An answer which is adequate in most sections but with little detail. Shows use of RB.

Level 2 (10-17 marks)
A more accurate answer with three areas clearly differentiated, or deals with more sections but very briefly, showing use of Resource Booklet.

Level 1 (1-9 marks)
A basic answer which may address only two areas with some development or three very briefly described, or confuses the two regions, or describes both regions without comparing.

Max 30 marks if table not used or elaboration is well beyond the scope of the table.

To assist marking: for individual sections: L5 – full coverage with clear examples/comparisons.
                                   L3 – Two comparative points
                                   L1 - Basic statements
3 sections @ L5 =L5, 2 @L5 + 2 @ L4 =L5, 2@ L5 = 2@ L3= L4

Question 2

'The exploitation of resources and environments may result in local, regional, national and global scale issues.' To what extent do threats to Polar Regions support this statement?
Use examples from the booklet and your own knowledge to justify your answer.   [40]

Illustrative content:
Case study material is given of the Mackenzie valley pipeline and oil well drilling. Other direct threats given include tourism and whaling, while indirect threats include climate change and pollution. The command suggests that all four scales should be used, and higher level answers may prioritise the significance of the threats. Synoptic elements could include, for example, more information on tourism, atmospheric processes.

Level 5 (34-40 marks)
A comprehensive answer which shows and applies a good knowledge and understanding of the threats involved written in almost faultless English. The good candidate will make a distinction between resources and environments. The resource booklet is used in conjunction with own knowledge. There should be some synoptic elements clearly expressed. All four scales should be addressed.

Level 4 (26-33 marks)
A good answer which succeeds in linking the threats described in the booklet to the appropriate scales, but with some imbalance. There should be some indication of own research. At least three scales should be addressed with some detail, or two done very thoroughly.

Level 3 (18-25 marks)
A moderate answer which covers two or three scales or threats, with some clear use of examples from Polar Regions, and greater depth.

Level 2 (10-17 marks)
An answer that attempts to link two case studies to scale. Mainly generalisations rather than specific points.

Level 1 (1-9 marks)
A basic answer that covers one threat slightly developed or two in outline with only a vague link to scale.

Question 3

Explain how the exploitation of one or more resources that you have studied could be managed more sustainably. [You should not directly refer to, or use information from the Resource Booklet in your answer to this question].   [40]

Illustrative content:
This will depend on the topic chosen, but should clearly be using material derived from one or more of the nine topics suggested in the Specification.

Level 5 (34-40 marks)
An essay written in almost faultless English which shows good knowledge, understanding and application of sustainable management of resources, using examples. At level 5, the essay would be well balanced and logically structured, and clearly show synopticity.

Level 4 (26-33 marks)
A good essay demonstrating a range of knowledge and understanding of management and sustainable options. Place specific detail for examples is needed. Details of several applications of one 'way', eg legislation, can be accepted just into L4. The answer should begin to show some synopticity.

Level 3 (18-25 marks)
Begins to develop an argument with a reasonably structured essay style in moderately correct English and incorporates some examples of resources with current management, including some place specific detail and a brief suggestion of changes that could be undertaken.

Level 2 (10-17 marks)
The answer shows a little development but still limited understanding and no clear examples of sustainable management.

Level 1 (1-9 marks)
Shows a basic understanding of sustainability with reference to one resource. The standard of English used is poor.

Grade Thresholds

Advanced GCE Geography B (3833/7833)
June 2008 Examination Series

Unit Threshold Marks

Unit		Maximum Mark	A	B	C	D	E	U
2687	Raw	90	53	47	41	35	30	0
	UMS	90	72	63	54	45	36	0
2688	Raw	90	68	61	54	47	40	0
	UMS	90	72	63	54	45	36	0
2689	Raw	60	42	37	33	29	25	0
	UMS	120	96	84	72	60	48	0
2690	Raw	90	72	63	54	46	38	0
	UMS	90	72	63	54	45	36	0
2691	Raw	90	69	62	55	49	43	0
	UMS	90	72	63	54	45	36	0
2692	Raw	120	86	78	70	62	55	0
	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	15.84	39.24	61.70	80.62	92.20	100.00	423
7833	23.08	49.10	75.57	91.18	98.87	100.00	442

865 candidates aggregated this series

For a description of how UMS marks are calculated see:
http://www.ocr.org.uk/learners/ums_results.html

Statistics are correct at the time of publication.