

Mark Scheme (Results) Summer 2010

GCE

GCSE Geography (6GE04) Paper 1

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

General Guidance on Marking

All candidates must receive the same treatment.

Examiners should look for qualities to reward rather than faults to penalise. This does NOT mean giving credit for incorrect or inadequate answers, but it does mean allowing candidates to be rewarded for answers showing correct application of principles and knowledge.

Examiners should therefore read carefully and consider every response: even if it is not what is expected it may be worthy of credit.

Unit 4: Geographical Research Indicative Mark schemes

See generic mark scheme as well

Question Number 1	<p>'Tectonic hazard profiles determine the way in which people and governments respond to hazards' Discuss.</p> <p>STEER</p> <ul style="list-style-type: none"> • Explore the range of tectonic event profiles and how these and other factors affect the responses of people and governments. • Research contrasting locations and hazard events to draw out the range of tectonic activity, and the different responses generated
<p>Indicative content must be used WITH the generic mark scheme- be prepared for different types of approach to this Question</p>	
FOCUS :	<p>The focus of this title is whether the response to the 3 main sorts of tectonic hazard: earthquake, volcano, tsunami depends on their event profiles</p> <p>The framework chosen may be by type of tectonic hazard, type of profile, or by type of response, possibly economic status</p> <p>Better candidates may include differing scales and time frames, and show a more sophisticated knowledge of physical event profile and subsequent response from the outset. They will justify their focus and framework more effectively</p>

<p>Key ideas /concepts which candidates may discuss + possible case studies/ examples</p>	<p>An indication of Methodology should feature: why/ what particular material was used, reputable sources like academic text books and journals such as the New Scientist, or reputable websites like the USGS. Better candidates may develop the importance of topical, unbiased sources e.g. blogs and NGOs versus academic researchers, or have a comparison of sources in accuracy e.g. in death tolls.</p> <p>Case studies /examples likely to feature: iconic older examples like Kobe and Pinatubo and Mt St Helens - look for up dated material here and credit Credit should be given to topical /current/updated examples e.g. Eyjafjallajokull, Iceland, earthquakes in Haiti Jan 2010 and Chile Feb 2010. Guatemala and Ecuador 2010 examples. Credit relevant fieldwork/primary research e.g. to Iceland, Sicily, Vesuvius Models may feature : Parks model adapted for response, Kates model on perception/response cycle, Dig's model on definitions of hazard and disaster</p> <ul style="list-style-type: none"> • Variation in hazard event profiles: frequency, magnitude, duration, areal extent etc are linked to types of response by people affected directly/indirectly. Hazards response is determined by physical processes (i.e. event profile) interacting with human perception, knowledge and capabilities. High magnitude, high frequency events, fast onset events should have a larger response than lower magnitude, lower frequency less explosive events. These factors will help dictate management, mitigation strategies, BUT the response is also governed by culture, politics, personal wealth, national economic status & access to technology. These are the 'other factors'. • The result: do nothing- and more proactive strategies have developed: adjustment by modifying loss burden, modifying the event (low importance in tectonics), modifying human vulnerability. • People and governments covers a wide set of players; responses should be linked to these. People may be local communities, or those in academic research, NGOs or even businesses building for example aseismic structures. Governments may be local-regional-national-international • Hazard profiles themselves are unlikely to be altered by response, but the impacts of them may be. • Spatial patterns occur: with more technologically based approaches in area of higher economic status in terms of infrastructure (e.g. aseismic buildings) but advent of internet and sharing of information internationally may mean at least warning systems are improving(e.g. post Asian Tsunami 2004) also Pinatubo and evacuation, • The nature of volcanism is important: effusive volcanoes may be easier to respond to than explosive ones. <p>Better candidates will weigh up to what extent response is directly/indirectly dictated by physical hazard profiles. This will depend on the case studies chosen. They may differentiate long and short term responses, direct and indirect impacts. They may differentiate primary, secondary and tertiary tectonic hazards. They may introduce a time frame into their discussion and the differing people or players involved. They may be more vigilant in referencing e.g., USGS, Geography Review, National Geographic, New Scientist, United Nations ISDR. They will use accurately specialist geographical/ associated terminology such as hazard salience, hazard profile, liquefaction, recurrence levels, secondary hazard, event profile, asthenosphere, vulnerability, quasi-natural.</p>
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Question Number 2	<p>'Approaches to managing cold environments are as varied as the environments themselves'. Discuss</p> <p>STEER</p> <ul style="list-style-type: none"> • Explore a range of cold environments and why there is a need for a variety of management approaches. • Research different cold environments which demonstrate different management approaches and techniques
Indicative content must be used WITH the generic mark scheme- be prepared for different types of approach to this Question	
FOCUS	<p>The focus of this title is whether ways of managing the diverse set of global cold environments really vary so much.</p> <p>The framework chosen may be by type of cold environment; (high/low latitude, low/high altitude, active/relict, glacial/periglacial) or type of management: exploitation-conservation-preservation, or scale/type of player/organisation: - international- national-local or official-voluntary.</p> <p>NB: be flexible in terms of what an approach is i.e. a management strategy, management technique, action plan etc.</p> <p>Better candidates may include differing scales and time frames, and show a more sophisticated knowledge from the outset of the characteristics of cold environments and their management approaches and why they have been used. They will justify their focus and framework more effectively.</p>

<p>Key ideas /concepts which candidates may discuss + possible case studies/ examples</p>	<p>An indication of Methodology should feature: why/ what particular material was used,; reputable sources like academic text books and journals, or reputable websites like the UN or BAS. Better candidates may develop the importance of topical, unbiased sources e.g. blogs and NGOs versus academic researchers,</p> <p>Case studies /examples likely to feature: Antarctica, Arctic-Denali, Cairngorms- credit recent/ up dated material</p> <p>Credit relevant fieldwork/primary research e.g. to Iceland, Alps, relict landscapes of Scottish Highlands, Lake District, Snowdonia.</p> <p>Models may feature : e.g. Core-Buffer/Biosphere model, adapted wilderness spectrum, continuum models showing exploitation-preservation</p> <p>Key Ideas which candidates may discuss</p> <ul style="list-style-type: none"> • Cold environments vary in nature/landscape/features/scale- may see a selection from these, too many to cover altogether • The landforms produced from glaciations have partly been responsible for current management of tourism. • Active landscapes in the Alps, Alaska, Iceland, Antarctic, Himalayas have a range of management from exploited- conservation-preservation. • Common to many cold environments =core/buffer zoning concept of Biosphere reserves and in many National Parks However, management approaches may not vary greatly dependent on the cold environment per se- may be more related to politics, governance, economic wealth, international involvement • Management approaches range from do nothing to preservation. Active conservation may occur. Antarctica is unique in its management (Antarctic Treaty). Some areas may have international management via UNESCO, others national management e.g. National Parks in Iceland or the ex-glaciated areas of UK. • The reasons for management range from exploitation- preservation. • Technology may play active part in management- from oil pipelines on stilts and buildings adapted to permafrost to satellite imagery • The people/players involved include governments, international organisations, statutory and NGO, pressure groups, local people, TNCs..... • Increasing fears over exploitation of cold environments- hence UN role and conservation watchdogs like Greenpeace. International Polar Year (2007-8), International Day of the Mountain (seen as the Third Pole). <p>Better candidates will weigh up to what extent management is varied and perhaps linked to physical features /characteristics of the cold environment. This will depend on the case studies chosen. They may differentiate long and short term management, carrot and stick, hard and soft. They may introduce a time frame into their discussion and the differing people or players involved and their differing attitudes. They may be more vigilant in referencing. They will use accurately specialist geographical/ associated terminology such as glacial, cirque, permafrost, preservation, stewardship, Peace Park....</p>
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Question Number 3	<p>'Food supply inequalities have complex physical and human causes'. Discuss STEER:</p> <ul style="list-style-type: none"> • Explore the complex causes of food supply inequalities, both 'natural' and those generated by people and their lifestyles. • Research contrasting locations and scales showing different causes of inequalities in food supply.
Indicative content must be used WITH the generic mark scheme- be prepared for different types of approach to this Question	
Focus	<p>The focus of this title is the balance between physical and human causes in creating unequal food supplies</p> <p>The framework chosen may be by nutritional spectrum (under-over nutrition), urban/rural; differing economic status; scale of problem, type of cause: mainly physical as opposed to mainly human generated.</p> <p>Better candidates may include differing scales and time frames, nutritional differences, and show a more sophisticated knowledge from the outset of the characteristics of food supply inequalities and the concept of complexity. They will justify their focus and framework more effectively.</p>

<p>Key ideas /concepts which candidates may discuss + possible case studies/ examples</p>	<p>An indication of Methodology should feature: why/ what particular material was used, reputable sources like academic text books and journals, or reputable websites like the UN, WHO, FAO or WRI. Better candidates may develop the importance of topical, unbiased sources e.g. blogs and NGOs versus academic researchers.</p> <p>Case studies/examples may come from dryland and desertified areas and urban areas as well as rural, and from areas with differing economic status. Expect places like N Korea, Darfur, Kenya, Australia, Mumbai, Port au Prince and less obvious ones like New York, Detroit, London.</p> <p>Credit should be given to topical /current examples e.g. the biofuels- staple food debate reducing food supply may feature, 2010 drought in Niger, transient physical factor of earthquake in Haiti overlying chronic food supply issues linked to human factors(politics, aid) and ongoing natural hazards etc.</p> <p>Models of Malthus and Boserup may feature, the latter especially good for assessing role of the two Green Revolutions and GM food. You may see food supply chain models, the root/proximate model, adapted 'Degg venn style' model.</p> <p>Key Ideas which candidates may discuss</p> <ul style="list-style-type: none"> ❖ Food supply inequalities (<i>exists when some people do not have adequate physical, social or economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life</i> (FAO) whilst others have plentiful supplies. Inequalities refer to hunger hotspots versus areas of plenty or could even mean excess food supply. ❖ Supply refers more to production and distribution of food than access which focuses on especially disposable income.... ❖ There is enough food to feed all at a global scale, but it is not distributed fairly/evenly/adequately to all ❖ NB current fears that global supplies are at a low and may not match global demand by 2030 (Perfect Storm report Beddington 2009) ❖ Food inequalities are now large scale and increasing but for a whole variety of natural-physical and human reasons: environmental/economic, social/political. ❖ Inequalities have often been generated by international strategies- e.g. unfair world trade, debt repayments, inappropriate food aid..... ❖ Supply of food may be local-national-imported- NB current land grabbing of China to feed its population by using land in other countries-currently in Africa. ❖ Root cause is often unstable social and political environments that has stopped sustainable economic growth ❖ Direct/proximate causes include natural hazards plus natural climate shifts, often a cause of food insecurity in dryland marginal areas; salinisation, desertification, deforestation, degradation. ❖ Climate change (indirectly from human caused enhanced greenhouse effect) plus associated weather shocks (cyclones, droughts) affecting especially vulnerable sub Saharan Africa may reduce food supply ❖ Rise in non food uses- from urban sprawl, tourism to biofuels may reduce food production. ❖ NB the FAO state: <i>human related causes of food insecurity have increased in past few decades</i> compared with 'natural' causes <p>Better candidates will weigh up the differing root and direct causes of inequality; political, social, economic as well as physical- changes in climate, hazards. They may identify different people/organisations who are the players in the food security problem and consider management which may even be a cause e.g. some food aid. They may introduce a time frame into their discussion and the differing people or players involved and their differing attitudes. They may be more vigilant in referencing. They will use accurately specialist geographical/ associated terminology such as feast-famine, intermediate technology, desertification, degradation, salinisation, marginal food supply areas, organic, climate shock.</p>
<p>Question Number 4</p>	<p>Evaluate the role different players have in sustaining and enhancing local cultures and cultural landscapes.</p> <p>STEER:</p> <ul style="list-style-type: none"> • Explore the significance of local cultures and cultural landscapes and the role of players in valuing and protecting them. • Research contrasting locations and cultures which show the actions and outcomes of a range of players.

Indicative content must be used WITH the generic mark scheme- be prepared for different types of approach to this Question	
Focus	<p>The focus of this title is the varying type and strength of differing organisations and groups and individuals in both maintaining for the future and even enriching both culture and its associated landscape(rural/urban/wildscape)</p> <p>The framework chosen may be by location, time scale, type of culture, type of landscape(cityscape/ruralscape/wildscape)</p> <p>Better candidates may include differing scales and time frames, and show a more sophisticated knowledge from the outset of the characteristics of cultures and landscapes at a local scale . They will justify their focus and framework more effectively</p>
Key ideas /concepts which candidates may discuss + possible case studies/ examples	<p>An indication of Methodology should feature: why/ what particular material was used, reputable sources like academic text books and journals, or reputable websites like the UNESCO or BBC. Better candidates may develop the importance of topical, unbiased sources e.g. blogs and NGOs versus academic researchers e.g. in social groupings.</p> <p>Case study locations should feature and be contrasted, expect reference to differing scales of 'local' from village and area within a city like the numerous Chinatowns to regional e.g. Basque, Cornish, Aborigines, to national e.g. Wales, France, Cuba, Tibet, China, Bhutan</p> <p>Credit should be given to topical /current examples and also credit relevant fieldwork/primary research for example in UK cities</p> <p>Key Ideas which candidates may discuss</p> <ul style="list-style-type: none"> ❖ Culture and its landscape are valued and protected to different degrees by different players, from Governments to media, pressure groups and NGOs to TNCs. Individuals like Banksy graffiti artist also relevant. Even seaside piers, pill boxes, Battersea power station. ❖ Cultural globalisation has had differential effects partly because of efforts to embrace it, reject it, or customise it. The rise of a more affluent middle class in most economies including China and India has a large part to play in often the loss of cultural roots. The role different players have in both creating and secondly maintaining diversity patterns varies across the world. ❖ Some players reject local culture and embrace a global culture by default, such as many world cities like London or megacities like Tokyo. Shanghai may feature-from loss of Puxi area and its increasing cappuccino/Macdonaldisation culture to its new towns like Songjiang modelled on other countries local culture. ❖ Some players, especially pressure groups and some governments encourage local culture, e.g. Wales, Bhutan, Cuba and some Islamic states by rejecting some of globalised culture traits ❖ Some areas being deliberately rebranded by developers/local authorities may foster a local culture- e.g. by historic signs, street furniture etc. Even gated communities may feature, from Mexico City to parts of London docklands and elsewhere as new often wealthier communities infiltrate existing ones ❖ Some NGOs may foster retention of local culture as a way of stabilising communities in for example impoverished slum dwellings and shanty towns. Soweto to Dharavi may feature. ❖ Many charities, from USAs John Muir to UKs National Trust deliberately preserve landscapes and historic buildings ❖ Culture is not fixed/rigid but evolves with inputs: new people/ideas/ technology advances. Local culture may hybridise/customise cultural globalisation- glocalisation , Some players may deliberately glocalise their products to foster local traditions e.g. the TNC player MacDonald's and its Indian veggieburger ❖ Faster increase in change with technology of 20th-21st C(air, internet, rising disposable income with rising middle classes) <p>Better candidates will weigh up the extent of cultural diversity/uniformity at a local scale. They may set up criteria to assess the roles. They may introduce a time scale into their discussion, and argue local culture has always changed - although the global sharing of culture is so more rapid in the recent past because of technology and rising affluence of some sectors of most economies. The direct and indirect role of players may be discussed, including that of the media .They will use with accuracy specialist geographical/associated terminology such as 'MacDominate' or macdonaldisation' , globalisation, ethnicities, cultural gateways, consumerist society, anthropocentric, environmentalism, Bollywood, technoscapes, ethnoscap.es..... They may be more vigilant in referencing</p>

Question Number 5	<p>To what extent is pollution control a key strategy in reducing health risks?</p> <p>STEER:</p> <ul style="list-style-type: none"> • Explore the varied causes of health risks, and the degree to which pollution strategies have played a significant part in reducing them. • Research health risks in contrasting locations and the contribution of pollution control in their management.
<p>Indicative content must be used WITH the generic mark scheme- be prepared for different types of approach to this Question</p>	
Focus	<p>The focus of this title is how much the control of pollution helps in reducing morbidity and mortality for people and in improving their quality of life.</p> <p>The framework chosen may be by use of long term= chronic /short term risk, time scale as shown in the environmental health transition model, economic development, successful or unsuccessful management, health risks reduced, re-emerged, eradicated, increasing, or the source---sink model location</p> <p>Better candidates may include differing scales and time frames, and show a more sophisticated knowledge from the outset of the characteristics of pollution control linked to health risk. They may compare control by local-national-international organisations . They may identify that other strategies exist- palliative, curative, vertical management as well as pollution control itself. They will justify their focus and framework more effectively</p>

<p>Key ideas /concepts which candidates may discuss + possible case studies / examples</p>	<p>An indication of Methodology should feature: why/ what particular material was used, reputable sources like academic text books and journals, or reputable websites like the WHO, Environment Agency or BBC. Better candidates may develop the importance of topical, unbiased sources e.g. blogs and NGOs like the Blacksmith Institute versus academic researchers and articles e.g. Lancet, New Scientist.</p> <p>Credit should be given to topical /current case studies/examples such as ban on smoking, asthma and China's 'grime belt' and cancer villages and Harbin river incident, or older iconic examples updated such as Minimata, Chernobyl, Love Canal and Bhopal. Expect strategies such as Kyoto(GHGs), Basle(toxic waste)Montreal(cfcs)</p> <p>Key Ideas which candidates may discuss</p> <ul style="list-style-type: none"> ❖ Vast array /range of health risks, some more difficult to manage ❖ Many associated with pollution from both air, land and water sources: respiratory and waterborne diseases like cholera, diarrhoea ❖ The Montreal protocol is a good example of controlling pollution at the source, and hence reduction of melanoma risk from ozone depletion. However policies of education on sunscreens etc also very important ❖ Some infectious diseases have no real link with pollution e.g. measles, HIV/AIDs or diseases associated with obesity although a polluted environment will add stress to health ❖ Some vectored diseases e.g. spread of malaria relates to climate change- so indirectly related to pollution control via Kyoto Protocol(Copenhagen and forthcoming Mexico IPCC) Summits is relevant. However strategies of roll back Malaria, nets etc and possible future vaccine may be more important ❖ Hence management of the source is critical to longer term management. Shorter term treatment of symptoms probably more unsustainable ❖ Control may be by prevention or treating symptoms. ❖ Lifestyle choices are critical as well as pollution control ❖ Management has had varying impact on health risk prevalence/ re emergence ❖ Models may be used e.g. Kuznet environmental curve and environmental transition model <p>Better candidates will weigh up the range of management (primary, secondary, tertiary care and source or prevention and sink or treatment concept) and weigh up reductions. May set up criteria to evaluate reductions of risk, May venture into re emergent diseases. They may introduce the differing people or players involved in this. Pollution control IS important to many health risks but not all- e.g. obesity related, HIV/AIDs etc. They will have more sophisticated ongoing evaluations and weigh up their case studies in a final conclusion. They will go beyond a simplistic viewpoint for example that pollution control is the most important strategy- there is a whole spectrum. They may introduce a time element and examine need for more international cooperation as pollution is increasingly globalised. They will use accurately specialist geographical/associated terminology such as chronic, epidemiology, GIS, health risk, health shock, prevalence, pandemic, epidemic, diffusion, source, sink, pollution fatigue. They may be more vigilant in referencing.</p>
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<p>Question Number 6</p>	<p>Explain why strategies used to manage rural areas popular for leisure and tourism vary in their effectiveness.</p> <p>Steer:</p> <ul style="list-style-type: none"> • Explore the range of management strategies used in rural leisure and tourism hotspots, and why these may have different outcomes. • Research contrasting rural landscapes experiencing pressure from leisure and tourism, and the range of strategies used to manage them.
<p>Indicative content must be used WITH the generic mark scheme- be prepared for different types of approach to this Question</p>	

<p>Focus</p>	<p>The focus of this title is how much management of leisure & tourism in rural areas by varying players is effective in either reducing negative effects /externalities or its successful development.</p> <p>The framework chosen may be by type of strategy, effectiveness, type of leisure/tourism or location, type of hotspot, economic status or length of development</p> <p>Better candidates will explore different types of leisure, tourism, type of strategies, and set up criteria to measure effectiveness. They will justify their focus and framework more effectively and identify factors influencing strategies.</p>
<p>Key ideas /concepts which candidates may discuss + possible case studies/ examples</p>	<p>An indication of Methodology should feature: why/ what particular material was used, reputable sources like academic text books and journals, or reputable websites like National Park Authorities or BBC. Better candidates may develop the importance of topical, more biased sources e.g. blogs and NGOs like pressure groups or leisure sporting websites versus academic researchers and articles e.g. The Economist</p> <p>Credit should be given to topical /current case studies/examples such as new GoApe projects and Macchu Piccu, new National Parks like the South Downs, or older iconic examples updated such as Yosemite and Lake District. Expect strategies such as zoning, biosphere reserves</p> <p>Credit should be given to topical /current examples and relevant fieldwork/primary research</p> <p>Key Ideas which candidates may discuss</p> <ul style="list-style-type: none"> • Rise in leisure and tourism demands globally mean more management strategies need to be made- by governments/charities like National Trust rather than businesses / exploiters e.g. Centre Parcs • Different types of leisure and tourism (active or passive) may require different management strategies • Different areas/players put different values on conserving, preserving, exploiting rural areas, and hence different strategies may be used by a business or conservation authority. • Stewardship, sustainable management, ecotourism may feature • Preservation and conservation are mainly used by wealthier countries or those with space to allow land to be restricted from leisure and tourism., although increasingly been seen as a type of environmental status symbol by transition economies(e.g. China, Wolong National Park) • Carrot and stick policies, hard and soft management relevant. • Strategies increasingly involving international efforts e.g. WWF, UNESCO, IUCN • Effectiveness varies greatly according to economic, social, political and environmental factors. The concepts of carrying capacity and VERP may be used. • Effectiveness may be short and longer term - and may be to manage area for leisure/tourism or conservation or both • Hotspots may be deliberately sacrificed to help preserve other areas, or deliberately managed to reduce pressure <p>Better candidates will weigh up what variations there really are in strategies used. They may introduce the differing people or players involved in this. and introduce a time element. They may establish clear criteria to measure the effectiveness of the strategy in question. They will use accurately specialist geographical /associated terminology such as hot spot, carrying capacity, pleasure periphery, resilience, degradation, stewardship, ecotourism. They may be more vigilant in referencing</p>

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