



Mark Scheme (Results)

Summer 2013

GCE Geography (6GE04) Paper 01  
Geographical Research

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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 scheme.**  
**To be used with the published Generic mark scheme.**

<b>Question Number 1</b>	<b>To what extent is the level of development the main factor affecting the challenges posed by tectonic hazards?</b>
<b>Indicative content to be used with the generic mark scheme. Credit other valid approaches.</b>	
<p><b>FOCUS:</b> The <b>focus</b> of this title is the factors that affect the level of challenges posed to people from tectonic hazards, with particular evaluation of the role of economic development as the main factor.</p> <p>The <b>framework</b> chosen may be by the scale of challenge/impact, type of tectonic hazard, factor, level of development, before / during / after the event. <b>Models</b> may feature e.g. Parks, Degg and Smith. There is a strong role for economic development, but better candidates will:</p> <ul style="list-style-type: none"> <li>• Justify their focus and framework more effectively, setting up criteria to test/ evaluate challenges.</li> <li>• Go further than the outdated North- South divide and introduce how transition economies like Chile and China cope with hazards and conversely MEDCs like Japan were so affected by the 2011 tsunami.</li> </ul>	
<b>Key ideas that candidates may discuss and possible case studies / examples:</b>	
<p>An indication of <b>Methodology</b> should feature: which material was selected and why; reputable sources like academic text books and journals such as the <i>New Scientist</i>, or academic websites like the <i>USGS</i>.</p> <p><b>Key ideas</b></p> <ul style="list-style-type: none"> <li>• 3 types of hazard: primary - volcanic and earthquake, secondary - tsunami</li> <li>• Challenges, being something to overcome, will include death, disability and socio-economic problems especially from high magnitude, high frequency events</li> <li>• Hazards challenge/ impact is determined by physical processes interacting with human vulnerability (Degg's model may feature)</li> <li>• Event -profiles including magnitude and frequency of hazards influence challenges/ impacts, possibly limited by response, involving knowledge, and the availability of financial and technological resources</li> <li>• Parks' model of impact over time is highly relevant here</li> <li>• Spatial patterns occur with most deaths in poorer areas. All areas affected will incur economic effects, but more prosperous areas will have the safety net of government and insurance funding, despite the initial challenges of the disaster (e.g. Japan)</li> </ul> <p>Expect a range of <b>case studies</b> by scale, location and possibly over time, showing <b>detailed knowledge</b>. Locations should feature and be contrasted, most likely by economic status. Likely to include reference to 'The Big One of San Andreas', Nazca subduction zone, Ring of Fire, EARV. Credit should be given to <b>topical /current</b> examples. Japan tsunami and Spanish earthquakes of 2011, Haiti and Chile quakes and volcanic eruption from Eyjafjallajoekull 2010, Grimsvotn 2011.... May use compulsory case studies of Philippines and California from Unit 1. <b>Credit relevant fieldwork/primary research as evidence</b>, eg to Iceland, Sicily, Vesuvius.</p>	

(PTO)

**Better candidates may**

- Make a clear judgment about the importance of level of development i.e. how important it is and which other factors might be important.
- Recognise that levels of development are more complex than north versus south.
- Differentiate long and short term impacts, direct and indirect impacts
- Differentiate primary, secondary and tertiary tectonic hazards
- Argue human vulnerability is needed to make the hazard into a disaster and include management as mitigating hazard impacts/challenges and may introduce a time frame into their discussion. They may introduce the differing people or players involved in this.
- Use **specialist geographical/ associated terminology** such as, hazard salience , recurrence levels, secondary hazard, event profile divergent/convergent/transform margins, Benioff zone, hot-spot, hazard profile, secondary hazard, event profile, lithosphere, asthenosphere, explosivity index, quasi-natural.

<b>Question Number 2</b>	<b>Explain the relative importance of different geomorphological processes in creating distinctive glacial landforms.</b>
<b>Indicative content to be used with the generic mark scheme. Credit other valid approaches.</b>	
<p><b>FOCUS:</b> The <b>focus</b> of this title is the relative importance of the processes of erosion, deposition and transportation from ice (in the form of ice-sheets / glaciers) and other processes at work in glacial environments: fluvio-glacial, weathering,</p> <p>Their <b>framework</b> may be by types of glacial environment (upland, lowland, relict), or process (erosion, deposition, transportation). Periglacial could be mentioned and is allowable, but should not be expected.</p> <p>Better candidates will:</p> <ul style="list-style-type: none"> <li>• Focus on the 'distinctive' nature of landforms and the processes that form them.</li> <li>• Select an appropriate range of examples by scale, location and possibly over time.</li> </ul>	
<b>Key ideas that candidates may discuss and possible case studies / examples:</b>	
<p>An indication of <b>Methodology</b> should feature: which material was selected and why; reputable sources like academic text books and journals such as the <i>New Scientist</i>, or reliable academic websites like <i>BAS</i>. <b>Better candidates</b> may develop the importance of topical, or potentially less reliable sources e.g. Wikipedia</p> <p><b>Key Ideas</b></p> <ul style="list-style-type: none"> <li>• Processes should be linked with environment whether at landform or landscape scales</li> <li>• Processes are dominated by moving ice- differences between cold and warm based glaciers</li> <li>• Glacial processes: abrasion, plucking, nivation</li> <li>• Landforms may be large scale to medium and small scale</li> <li>• Upland- U shaped valleys, over deepened basins-lakes, aretes, cirques, trimline.</li> <li>• Lowland: till sheets, flutes, drumlins, moraine</li> <li>• Some associated fluvio-glacial landforms- outwash plains, overflow channels</li> <li>• Frost activity in areas not covered by ice: shattering helps add material to glacier-moraines</li> </ul> <p>Expect a range of <b>examples</b> by scale, location and possibly over time. Antarctica may feature. Credit should be given to <b>topical examples</b> if appropriate: for example climate change/global warming altering processes in glacial landscapes (retreat and increased periglacial processes) and features, as in Greenland, Himalayas and China's Qinghai-Tibet plateau.</p> <p><b>Credit relevant fieldwork/primary research used as evidence</b> e.g. to Iceland, and relict areas-Lake District, Snowdonia.</p> <p><b>Better candidates may</b></p> <ul style="list-style-type: none"> <li>• Explain why erosional features dominate in upland areas, and depositional features in lowlands.</li> <li>• Suggest other factors involved as well such as type of climate, geology.</li> </ul>	

- Use more effectively **specialist geographical /associated terminology** such as equifinality, cirque, ablation, bergschrund.

<b>Question Number 3</b>	<b>Strategies attempting to increase food security vary in their effectiveness.' Discuss</b>
<b>Indicative content to be used with the generic mark scheme. Credit other valid approaches.</b>	
<p><b>FOCUS:</b> The focus of this title is the varying effectiveness of the various strategies used to decrease food insecurity.</p> <p>The <b>framework</b> chosen may be by: type of strategy, scale or level of success.</p> <p><b>Better candidates</b> will:</p> <ul style="list-style-type: none"> <li>• Justify their focus and framework more effectively</li> <li>• Set up criteria to test effectiveness such as the 'pillars' of food security or stool / quadrant of sustainability.</li> </ul>	
<b>Key ideas that candidates may discuss and possible case studies / examples:</b>	
<p><b>An indication of Methodology</b> should feature: which material was selected and why; reputable sources like academic text books and journals such as the <i>Geographical Review</i>, <i>New Scientist</i>, <i>The Economist</i> or reputable websites like the FAO. <b>Better candidates</b> may develop the importance of topical, unbiased sources eg scientific/academic researchers e.g. UNEP versus blogs and NGOs or have a comparison of sources in accuracy. Credit should be given to <b>topical /current examples</b>, for example disaster relief.</p>	
<b>Key ideas:</b>	
<p>Food security (FAO) exists when '<i>people have adequate physical, social or economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences, for an active and healthy life</i>'. There are a large number of food insecurity issues causing problems globally and a range of management strategies designed to address them:</p>	
<ul style="list-style-type: none"> <li>• Strategies may include intensification of farming (including GM and GR approaches), expanding the farmed area, intermediate technology to increase food production, improving storage and reducing waste.</li> <li>• Strategies may include aid (including short-term food aid, food-banks, longer-term development aid) trade, debt relief, high and low tech approaches.</li> <li>• Players- from the United Nations down to national or even local efforts by both governments and NGOs</li> <li>• Short term relief e.g. food aid versus longer term approaches e.g. Fair Trade, UNEP projects, Millennium Development Goals.</li> <li>• Top-down/bottom-up schemes may feature</li> <li>• Urban and rural locations / contrasts may feature</li> </ul>	
<b>Better candidates may:</b>	
<ul style="list-style-type: none"> <li>• Use a balanced, wider range of examples / case studies and evaluate the differing strategies available - perhaps contrasting by scale.</li> <li>• Identify different people/organisations who are the players in the food security problem</li> <li>• Make clear judgments about which strategies and most / least effective and why.</li> <li>• Use <b>accurately specialist geographical/associated terminology</b> such as: nutritional spectrum, marginal food supply areas, land tenure, bottom-up, transitory and chronic food insecurity, food spike, megacity, intermediate technology.</li> </ul>	

<b>Question Number</b> 4	<b>To what extent do different players have contrasting attitudes towards the protection of cultures and cultural diversity?</b>
<b>Indicative content to be used with the generic mark scheme. Credit other valid approaches.</b>	
<p><b>FOCUS:</b> The <b>focus</b> of this title is the varying attitudes held by differing organisations, groups and individuals in the preservation of cultures. The <b>framework</b> chosen may be by differing attitudes of players, location, time scale, type of culture.</p> <p><b>Better candidates</b> may include differing scales and time frames, and</p> <ul style="list-style-type: none"> <li>• Justify their focus and framework more effectively and set up criteria to assess the attitudes/roles.</li> <li>• Have a more balanced range of case studies by scale, location and possibly over time, showing more sophisticated knowledge from the outset of the characteristics of cultural diversity.</li> <li>• They will justify their focus and framework more effectively.</li> </ul>	
<b>Key ideas that candidates may discuss and possible case studies / examples:</b>	
<p>An indication of <b>Methodology</b> should feature: which material was selected and why, reputable sources like academic text books and journals such as the <i>Geography Review</i>, or reputable websites like <i>UNESCO</i>. Expect a wide variety in this option from <i>National Geographic</i>, tabloid newspapers, pressure groups.</p> <p><b>Key ideas</b></p> <ul style="list-style-type: none"> <li>• A major global player is UNESCO: funds and protects sites: largely advisory role.</li> <li>• NGOs important and often vocal in preserving local cultures e.g. Survival International: lobby governments for change / protection.</li> <li>• Governments are a key player: funding, policies and strategies for cultural diversity e.g. aim to assimilate or foster multi-culturalism. UK and France and China (rise of Han culture at the expense of e.g. Tibetan culture) may feature (NB UK governed partly by EU directives)</li> <li>• Businesses and TNCs, through globalisation, have effects on reducing heterogeneity of cultures (but can also promote some cultures).</li> </ul> <p><b>Factors influencing attitudes include:</b> political and environmental agendas, accessibility, processes of filtering down and gentrification, tourism, past degree of cultural diversity or homogeneity in a locality.</p> <ul style="list-style-type: none"> <li>• Globalisation has been influential in expanding more globalised forms of culture; 'switched-on' <i>versus</i> 'switched-off' places may feature. Huxley's model (artefacts, sociofacts, mentefacts) may feature; ideas on hyperglobalists, transformationalists and sceptics.</li> <li>• Topical /current examples could include government destruction of hutongs in Beijing, local communities in favelas in Rio de Janeiro, China town diasporas, government policies on tourism in Bhutan or Kenya, royal white weddings to hip hop music.</li> <li>• Credit relevant fieldwork/primary research used as evidence such as in a city.</li> </ul> <p><b>Better candidates</b> may:</p> <ul style="list-style-type: none"> <li>• Explore the reasons for contrasting attitudes both between groups, within</li> </ul>	

groups and perhaps overtime.

- Recognise the complexity of the factors that influence attitudes
- Make a judgment as to how far attitudes vary.
- Use more effectively **specialist geographical terminology** such as globalisation, glocalisation, consumerist society, ethnoscapas, artefacts, mentefacts, sociofacts, diaspora, assimilation.

<b>Question Number</b> 5	<b>To what extent does the type and degree of health risk influence the choice of management strategy?</b>
<b>Indicative content to be used with the generic mark scheme. Credit other valid approaches.</b>	
<p><b>FOCUS:</b> The <b>focus</b> of this title is the relationship between health risks and the management strategy chosen to reduce/eradicate them.</p> <p>The framework chosen may be by type of health risk, infectious / non-infectious (disease category), management strategy, developed versus developing world. Could also be by scale global, national, local. <b>Models</b> may feature: Epidemiology model, Kuznets Curve, Preston curve, Wilkinson.</p> <p><b>Better candidates</b> will:</p> <ul style="list-style-type: none"> <li>• Go beyond a case-study approach to set up criteria to explain the degree of risk <i>as well as</i> the type.</li> <li>• Investigate how far risk is responsible for the choices made by managers.</li> </ul>	
<b>Key ideas that candidates may discuss and possible case studies / examples:</b>	
<p>An indication of <b>Methodology</b> should feature: which material was selected and why, reputable sources like academic text books and journals such as the <i>New Scientist</i> and <i>BMJ</i>, or reputable academic websites like the WHO or government sites like the NHS.</p> <p><b>Key ideas:</b></p> <ul style="list-style-type: none"> <li>• Range of health risks, some more toxic/persistent or longer term than others: some affect morbidity, some mortality.</li> <li>• Some more difficult to control directly e.g. malaria spread affected by global warming.</li> <li>• Strategies to may be top-down/bottom-up in approach, local to global in scale.</li> <li>• Prevention strategies e.g. vaccination contrast with treating symptoms e.g. antibiotics; specialist hospitals versus national health care.</li> <li>• Strategies are controlled by agencies with different goals: global institutions e.g. the WHO versus national NHS: NGOs e.g. <i>Medicine Sans Frontières</i>.</li> <li>• Management strategies have varying impacts on their prevalence/ re emergence.</li> <li>• Strategies to control <b>pollution</b> vary from source to sink and local to global. . Montreal Protocol, Kyoto/Copenhagen may feature <b>but</b> these are not primarily health strategies</li> <li>• Many areas under threat from Global warming increasing health risks, but developing nations have less finance and infrastructure to cope with increased heat stroke, dengue fever and malaria.</li> <li>• Increasingly strategies are international from UN WHO, G8 and NGOs like the Gates Foundation. Increasing importance of global risks e.g. SARs, flu may feature as a risk with possibly disproportionate attention and global endeavour to combat: high mortality rate and high media profile accounts for global effort.</li> </ul> <p><b>Case studies / examples</b> to be expected are by risk eg HIV/AIDs, Malaria across spectrum of countries. Pollution events include Bhopal, Chernobyl, Fukushima - should be contextualised and not just one-off examples. Complex national care systems may be contrasted with barefoot doctors. May have reference to Obama reforms in USA, Cameron reforms UK.</p>	

**Better candidates** may:

- Select a **balanced range of examples** to test criteria stated in introduction.
- Use accurately **specialist geographical/ associated terminology** such as DALYs, chronic, epidemiology, health risk, health shock, prevalence
- Credit those who go beyond simplistic viewpoint that the health risk impact is the main factor - many other factors are involved such as scale, level of development, access to finance, access to technology, public opinion / perceptions of risk, political factors.

<b>Question Number 6</b>	<b>To what extent have the threats posed by leisure and tourism in rural areas increased and changed?</b>										
<b>Indicative content to be used with the generic mark scheme. Credit other valid approaches.</b>											
<p><b>FOCUS:</b> The <b>focus</b> of this title is the nature and scale of threats and whether they stay constant in any rural locality, as well as the reasons for change. The <b>framework</b> chosen may be by increase or decrease in threat type/ level, type of rural area, type of leisure/tourism or location. <b>Models</b> may feature: carrying capacity, resilience, Doxey's irritation model, urban-wilderness continuum model.</p> <p><b>Better candidates</b> will:</p> <ul style="list-style-type: none"> <li>• Justify their focus and framework more effectively and set up criteria to test the title e.g. visitor numbers, conflict-levels, need for management and zoning/preservation.</li> <li>• Distinguish between leisure and tourism.</li> <li>• Focus on rural areas (urban areas such as Dubai, CBDs etc should not be credited)</li> </ul>											
<b>Key ideas that candidates may discuss and possible case studies / examples:</b>											
<p>An indication of <b>Methodology</b> should feature: which material was selected and why, reputable sources like academic text books and journals such as the <i>New Scientist</i>, or reputable academic websites like the BAS.</p>											
<p><b>Key ideas:</b></p> <p>Rural areas include settlements as well as physical landscapes, threats to local communities as well as natural environment.</p> <ul style="list-style-type: none"> <li>• Different types of leisure and tourism (active or passive) may produce different impacts/threats.</li> <li>• Growth of leisure and tourism spatially over time, pleasure, periphery expansion.</li> <li>• Changes in leisure and tourism over time in one location.</li> <li>• Rise of transition economies especially BRIC in terms of increasing demands.</li> <li>• Management may mitigate threats -techniques of creation of National Parks, Biosphere reserves, zoning, permits, traffic control, building regulations etc may be considered</li> </ul>											
May categorise the threats by:											
<table border="1"> <thead> <tr> <th data-bbox="204 1473 496 1512">Economic</th> <th data-bbox="496 1473 820 1512">Social</th> <th data-bbox="820 1473 1123 1512">Political</th> <th data-bbox="1123 1473 1412 1512">Environmental</th> </tr> </thead> <tbody> <tr> <td data-bbox="204 1512 496 1832">TNCs / media promoting tourism, economic growth adding to pressure, rising disposable income.</td> <td data-bbox="496 1512 820 1832">Attitudes and values users or managers, rise of extreme pursuits, expansion of pleasure periphery.</td> <td data-bbox="820 1512 1123 1832">Government (national, international, EU) willingness to fund, legislate, desire for international prestige.</td> <td data-bbox="1123 1512 1412 1832">Fragility / resilience of areas, proximity to urban centres/ demand, increased accessibility.</td> </tr> </tbody> </table>	Economic	Social	Political	Environmental	TNCs / media promoting tourism, economic growth adding to pressure, rising disposable income.	Attitudes and values users or managers, rise of extreme pursuits, expansion of pleasure periphery.	Government (national, international, EU) willingness to fund, legislate, desire for international prestige.	Fragility / resilience of areas, proximity to urban centres/ demand, increased accessibility.			
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<p><b>Case studies</b> likely to be popular are Antarctica, Machu Picchu, Galapagos, UK national parks and country parks, Olympic winter sports sites. <b>Credit local research and other fieldwork as evidence.</b></p>											
<p><b>Better candidates</b> may:</p> <ul style="list-style-type: none"> <li>• Assess the changes in threats clearly and cover those which increase and</li> </ul>											

decrease.

- Go beyond the simplistic viewpoint that the main factor is economic development.
- Use accurately **specialist geographical/ associated terminology** such as post-productive landscape, rebranded, valorisation, hot spot, carrying capacity, pleasure periphery, resilience, stewardship, ecotourism, top down, bottom up, leakage.

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