



Mark Scheme (Results)

Summer 2012

GCE Geography
Geographical Research
6GE04

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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.

<p>Question Number 1</p>	<p><u>'Evaluate the importance of different factors which influence how successfully people and organisations cope with tectonic hazards</u></p> <p>Explore the factors which influence the effectiveness of responses used by different groups of people to cope with tectonic hazards Research volcanic and seismic hazards to examine the range of responses applied in contrasting locations</p>
<p>Indicative content to be used WITH generic mark scheme- be prepared for <u>many</u> different types of approach to this Question.</p>	
<p>FOCUS and Framework</p>	<p>The focus of this title is an evaluation of the factors (physical and human) determining ways of coping (approach, strategies) by technology, finance, attitude etc by a range of players. Definitions should include</p> <ul style="list-style-type: none"> • Tectonic hazards with clear recognition of the seismic volcanic classification. Primary, secondary and tertiary hazards may feature. May use Degg's model. • Success can be debated long/short term, by management of social(deaths, injuries) and economic impact(recovery ,rebuilding etc) as well as success of aid, prediction • People range from individuals to communities, and organisations: from government to NGOs community groups relief agencies and TNCs, media, planners, scientists etc who may take a top down /bottom up approach <p>The framework chosen may be by:</p> <ul style="list-style-type: none"> • Factors involved (economic, social, political, physical) • Effectiveness/success /type of response, possibly using Park's model :using a time frame- pre/during/after hazard, or Kate's perception model, Smith's model: modify event/vulnerability/loss, or the hazard management cycle of response • By scale: global, international, national, local, individuals • Players and role in coping/response • Type of tectonic hazard • Economic status/development level • Probably less successful: a descriptive use of case studies often in no particular order <p>Better candidates will</p> <ul style="list-style-type: none"> • Justify their focus and framework more effectively • Set up criteria to evaluate the title • Select and justify a more balanced range of tectonic examples
<p>Research examples</p>	<p>Expect a wide range</p> <ul style="list-style-type: none"> • They should be selected to show the factors leading to the success of responses • a range should be expected of tectonic types, by scale, location and possibly over time, • Extended examples are likely to be more successful than descriptive case studies • They should have detailed accurate knowledge, locations should feature and be contrasted, • Expect topical /current examples: Italy 2012, Japan tsunami and Spanish earthquakes of 2011, Christchurch, Haiti and Chile quakes and volcanic eruption from Iceland - Eyjafjallajoeukull 2010 Grimsvoten 2011, • Older examples will also feature- 2004 Asian tsunami, Sichuan, Kashmir, Kobe, Montserrat, Pinatubo, Mt St Helens, Nevada del Ruiz, Mt Merapi and Nyiragongo. • Credit relevant fieldwork/primary research e.g. to Iceland, Sicily, Vesuvius • There will be others

Question Number 2	<p>To what extent do cold environments present different management and development challenges? Explore the wide range of management and development challenges which exist when humans attempt to use cold environments Research a range of cold environments in different locations to illustrate contrasting uses.</p>
<p>Indicative content plus generic mark scheme- be prepared for different types of approach to this Question.</p>	
FOCUS and framework	<p>The focus of this title is any similarities/ differences in the development and management of cold environments. Definitions should include</p> <ul style="list-style-type: none"> • Cold environments: active polar and alpine, glacial and periglacial. Relict landscapes add diversity to the argument but not essential. • Challenge means something needing a response, often a negative problem needing solving/mitigation. It includes the initial stage of development and subsequent management. • Development -hindered by harsh environment including steep slopes and extremely low temperatures, thin soils, low productivity and high fragility of ecosystems, hazards of avalanches and role of poor access and appropriate technology. <p>Framework :</p> <ul style="list-style-type: none"> ✓ Is likely to be by type of cold environment (polar, alpine, active/relict). ✓ Probably less successful: simply by case study, as this could be simply descriptive ✓ High challenge to lower challenges- justified by criteria ✓ Factors leading to challenges ✓ Management ✓ Approaches: do nothing—sustainable development-exploitation degree of protection, <p>Better candidates will</p> <ul style="list-style-type: none"> • Justify their focus and framework more effectively • Set up criteria to evaluate the title • Select and justify a more balanced range of cold land examples showing that differences lie in location, access and use and also politics whilst similarities means in difficulties, but different scales- e.g. polar areas face more extremes. • Tease out differences between development and management • Include strategies like National Parks have similar goals of conservation/protection although wide variations in effectiveness. Antarctica may be contrasted with ANWR
Research examples	<p>Expect a wide range of examples by scale, location and possibly over time.</p> <ul style="list-style-type: none"> • Polar and Alpine cold environments may vary in both type and scale of challenge e.g. European Alps with a high population and usage (especially avalanche threat), the Arctic may feature. • Current huge demands on economically developing areas: Himalayas(tourism, water/energy supply) • Antarctica will probably feature as an anomaly with global protection at least until 2042 review of Madrid Protocol part of Antarctic Treaty. So therefore not so much opportunity for economic exploitation, more for research, education. Currently management challenges focus on rise in tourism • Credit should be given to topical /current examples e.g. exploitation of Greenland, Himalayas and relevant fieldwork/primary research e.g. to Iceland, and relict areas-Lake District etc. Relict is not essential for maximum marks • There will be others. <p>Some background which may be developed in analysis of report:</p> <ul style="list-style-type: none"> • Polar tend to be more extreme and inaccessible but potentially in need of more conservation because of fragility/vulnerability. Alpine areas often have more varied uses and longer established. • technology is critical: ice breakers, GPS, skidoos, Gortex, remote sensing etc have all played part in development and management • Historically cold environments meant adapt or die. They have long supported small groups of indigenous people-Inuit, Eskimo, Nenets etc whose main challenge is surviving a hostile environment. • Latest challenges centre on changing environments linked to climate change: melting ice sheets, glaciers, melting permafrost- thermokarst. • Rise in development along the exploitation-protection spectrum with conservation and sustainable management in between. • Developing countries e.g. India, China and even Uganda and Kenya have increasing pressure to exploit cold environments (especially for HEP). Lure of minerals, recreation: skiing extreme sports, wildlife watching/conservation, plus scientific research and military uses.

Question Number 3	<p><u>To what extent do the characteristics of food insecurity vary in rural and urban areas?</u> Explore the characteristics of a range of current socio-economic political and environmental issues affecting food insecurity in both rural and urban areas Research contrasting rural and urban locations at different levels of development, that experience a range of issues linked to food insecurity</p>
Indicative content plus generic mark scheme- be prepared for different types of approach to this Question.	
FOCUS and framework	<p>The focus of this title is the degree of similarities and differences in food insecurity between and within rural and urban locations</p> <p>Definitions should include:</p> <ul style="list-style-type: none"> • Characteristics mean: distinguishing feature/ issues /causes/factors. May include FAO 4 pillars model -access, availability utilisation, stability and/or FED and FAD Food insecurity exists when 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. (FAO) .People's food and nutrition security needs vary over their life cycles • NB: can be chronic and transitory • Urban areas range from small towns to megacities, and rural from fringe areas to remote wilderness. There are differences within urban areas too- shanty towns and slums compared with richer communities, plus rising middle class developments globally. <p>The framework chosen may be by</p> <ul style="list-style-type: none"> • Type of place: urban- tends to be mainly access problems and rural -tends to be availability as well • Cause- socio-economic /political/environmental may be chosen • Differing economic status will probably feature • Characteristic -accessibility, affordability and availability. Includes the amount and nutritional status of food so could also use under and over malnutrition/ obesity. • Chronic or transitory : time scale- Some areas have systemic and chronic/endemic poverty and hence ongoing food issues e.g. sub Saharan Africa, others transient e.g. natural hazard/civil war- although these often occur in same area such as Haiti and the food security today is less a problem of general food availability than of access • Probably less successful: a descriptive use of case studies often in no particular order <p>Better candidates will</p> <ul style="list-style-type: none"> • Justify their focus and framework more effectively • Set up criteria to evaluate the title like the Global Hunger Index, Maplecroft Index, HDI • Select and justify a more balanced range of urban and rural examples • May have a spectrum of food insecurity • May tease out relationship between rural and urban areas re food supply and dependency
Research examples	<p>The decision as to whether rural and urban issues are the same/differ will depend on the case studies chosen. Expect to see a wide range, from country/megacity specific ones</p> <ul style="list-style-type: none"> • Better candidates will go further than just 'rural Kenya' or 'urban China' and be specific in locations. • Shared socio-economic issues: poor and women and children most affected by food security- in megacities and rural areas. However, the scale and intensity of security may vary within an area (e.g. London versus Mumbai) • Credit should be given to topical /current examples, e.g. 2007+ Food Spike, possibly recent hazard events e.g. Port au Prince, and other locations with food insecurity issues Ethiopia, Zimbabwe, Brazil, Haiti, China and Cuba, Urban: more hidden insecurity -food banks/homeless centres in London and smaller settlements in UK or New York, more obvious insecurity in e.g. Dhaka, Mumbai. • Kalahandi syndrome may be developed- starvation despite plenty availability. • NB If a developed country like Australia is used, the insecurity in food is most felt abroad by those importing food rather than the host country with its reserves, social security systems etc. • Much food supply in especially MEDCs is dominated by TNCs and supermarket chains • In developing cities like Dhaka or Marrakech many poor people depend on street stalls and communal kitchens for food since they have no means to cook/money for fuel • Globalisation of food tastes and food transition and obesity may feature • Climate changes and food spikes are making food security more important but also more difficult to achieve e.g. recent food spike is making many countries more protectionist and trade is essential for millions of poorer farmers to achieve food security themselves. • There will be others

<p>Question Number 4</p>	<p>'Differing cultural attitudes to the environment inevitably lead to conflict, both locally and globally.' Discuss Explore the range of different cultural relationships between humans and the environment and the extent to which this may lead to conflict Research a range of examples at a variety of scales, to illustrate different cultural values towards the environment.</p>
<p>Indicative content plus generic mark scheme- be prepared for different types of approach to this Question.</p>	
<p>FOCUS and framework</p>	<p>The focus of this title is whether conflicts over the use of the environment (in its broadest sense from the natural atmosphere or large scale ecosystems right down to a human created building/ area in a city) always happen because of varying cultural attitudes Definitions should include:</p> <ul style="list-style-type: none"> • Cultural attitudes- exploitative to preservation spectrum including sustainable development and conservation • What a conflict is: inevitably suggests that there are always conflicts between people, at a local and a global scale, however effective management may reduce/resolve these • Environments –urban/rural, atmosphere /biosphere/terrestrial /hydrosphere. May be viewed as sacred/for pleasure/for goods and services and for profit • Scale of local and global. NB: All urban and many rural landscapes/environments are the product of cultural decisions <p>The framework chosen may be by</p> <ul style="list-style-type: none"> • Scale -global/ local, • Type of environment: urban rural, or by 'earth zone' e.g. atmosphere, cityscape. • Spectrum from urban-semi urban-rural-wilderness • Type of environmental attitude- pre industrial/capitalist/socialist/post industrial or ethnocentric / ecocentric, or using technocentric/ /accommodation/ social ecology/ deep ecology categories • By a model, such as an adapted Kuznet curve, which has a turning point where exploitation changes to more protection – effectively a time scale framework • May be by yes inevitable, no not inevitable • Probably less successful: descriptive use of case studies often in no particular order • If use national then accept as a smaller scale (local) example than global <p>Better candidates will</p> <ul style="list-style-type: none"> • Justify their focus and framework more effectively • Set up criteria to evaluate the title • Select and justify a more balanced range of cultural attitude examples • Address 'inevitably' and perhaps quote examples with less conflict(a successfully managed National Park) • They will address the scale of conflict; environments with little conflict, environments with larger conflicts, environments where management may mitigate conflict. Conflicts vary in strength between players- individuals-communities-governments-IGOs and also longevity
<p>Research examples</p>	<p>Expect a wide range :</p> <ul style="list-style-type: none"> • local: NIMBYism and wind farms, local country parks and areas in cities such as hutongs in Beijing • More global: Increased international and global agreements on environmental management illustrate desire to reduce conflicts (e.g. World Heritage Site, Montreal Protocol on ozone, but also may create them (e.g. imposition of a national nature reserve or global scale biosphere reserve on indigenous people). Expect: Kyoto and Copenhagen Treaty Climate Change, Antarctica and its Treaty and Protocol, UNESCO sites such as Machu Picchu and Bath, Biosphere Reserves like Fynbos etc. • Use of Unit 2 rebranding and Unit 1 World at Risk on climate change and the Arctic may feature. From Unit 3 may meet biodiversity water and energy examples. • Examples may include how increasingly globalised consumer culture has created increased conflicts, but also how environmentalism has also become globalised • Credit should be given to topical /current examples, such as attitudes to post Kyoto, Earth Summit +20, 'Tescoisation' and clone towns, creation of new National Parks, environment of Stratford and Olympic city. • Credit relevant fieldwork/primary research such as in a city or country/national park. • There will be others

Question Number 5	<p><u>Assess the complex relationship between health risk and quality of life at a variety of scales</u></p> <p>Explore the nature, and development of, the relationship between health risks and quality of life Research the patterns of health risk and quality of life at different scales and in contrasting locations</p>
Indicative content plus generic mark scheme- be prepared for different types of approach to this Question	
FOCUS and framework	<p>The focus of this title is the complex relationship between health risk and quality of life: may be one way or two ways:</p> <ul style="list-style-type: none"> • High health risk reduces quality of life—but then may lead to management strategies and efforts to reduce the risk and hence quality of life improves. • The higher the quality of life potentially the lower the risk of e.g. infectious, vectored ,pollution and trauma risks(except through motor vehicle crashes) but there may be higher degenerative risks from ageing and life style choices involving smoking, obesity <p>Definitions:</p> <ul style="list-style-type: none"> • Health risk, classified into infectious, degenerative, vectored/non vectored, pollution related disease and traumas. May use the health risk equation. May include toxic and persistent, morbidity and mortality • Quality of life: numerous definitions here but should be more than standard of living, and so include socio-economic, political and environmental aspects. • Scales: global- international-national-regional-local. May distinguish urban and rural <p>The framework chosen may be by:</p> <ul style="list-style-type: none"> • Scale-global-regional-local quality of life • Type of health risk, especially chronic /degenerative and infectious. May distinguish longer and or shorter term risk • Groupings of the relationship: Poor Quality of Life - High health risk/ High Quality of Life -high health risk etc • By model: Omran's Epidemiology model, Dahlgren and Whitehead's lifestyle model, simple root/direct model, Wilkinson, Kuznet's environment curve model, poverty cycle etc. • Probably less successful: • Descriptive case studies chosen in no particular order. Separate diseases, e.g. HIV/AIDs, Malaria may not be so effective unless related to scale , similarly simple level of economic development <p>Better candidates will:</p> <ul style="list-style-type: none"> • Justify their focus and framework more effectively • Set up criteria to evaluate the title e.g. HDI,HPI, and go beyond standard of living or simple economic development . • May comment on morbidity, mortality and use measurements of health-adjusted life expectancy- HALE and disability adjusted life year-DALYs • Establish the complexity by the two way relationship between HR and QoL • Select and justify a more balanced range of health risks at a range of scales
Research examples	<p>Expect a wide range of case studies:</p> <ul style="list-style-type: none"> • Globally: a range of risks like HIV/AIDs, Dementia, Malaria contrasted across different locations with the role of management reducing complexity. Low QoL and lifestyle choices may increase risk e.g. in HIVAIDs and possibly malaria. Resulting poor health may impact on local and national economies- especially seen in HIV/AIDs and Malaria and so reduce QoL • National, regional and localised heath variations and hotspots- postcode lotteries e.g. within cities like Liverpool or Southampton .Here the role of lifestyle and changes in this may feature-globalisation of food tastes, sedentary habits, smoking, cultural focus on car.... • Pollution examples at local/regional/transboundary scale- Bhopal, Chernobyl, Fukushima, arsenicosis, cancer hotspots. • Anomalies e.g. Cuba • Regression of sub Saharan Africa contrasted with rise of transition economies especially with BRIC- rise in health issues and double health burden(infectious and chronic)adding complexity- but also rise in health care • There will be others

Question Number 6	<p><u>To what extent does leisure and tourism have negative impacts on rural areas?</u> Explore the positive and negative impacts of leisure and tourism on contrasting rural landscapes and settlements. Research contrasting types and locations of rural landscapes and settlements showing the varying consequences of leisure and tourism activities</p>
Indicative content plus generic mark scheme- be prepared for different types of approach to this Question.	
FOCUS	<p>The focus of this title is the nature and degree to which both leisure and tourism have negative impacts on the rural areas they are located in. This will depend on</p> <ul style="list-style-type: none"> • The nature of activity(active, passive,) and degree of footprint • Nature of environment- resiliency ,carrying capacity, fragility, vulnerability • Nature of the demand by visitors (eco/mass tourism). Doxey’s model of irritation may feature • Nature and degree of success of any management strategies • It will change over time with rising demands from increased affluence and availability of leisure time and spread of tourism demands globally(pleasure periphery) • Stage in tourism evolution using Butler’s model <p>Definitions</p> <ul style="list-style-type: none"> • Leisure and tourism • Rural areas can include settlements and landscapes, along the urban fringe to wilderness spectrum. • Rural areas include settlements as well as physical landscapes – i.e. impacts on local communities as well as natural environment. NB not urban parks marine reserves like coral reefs or current urban areas e.g. Dubai or Benidorm. • Impacts- largely negative and can be classified into economic, social and environmental, short and long term, direct and indirect. They range from destructive to modification to enhancement by investment. <p>The framework chosen may be by</p> <ul style="list-style-type: none"> • Type of rural area, wilderness continuum model may be used • Strength of impact, positive or negative effect, NB Many positive impacts occur- benefits to a community occur, e.g. more job opportunities-multiplier effect, restoration, rebranding may occur. The environment may benefit by more protection, zoning etc • Environmental/social/economic impacts, • Type of impact, environmental to economic to socio-cultural • Level of economic development • Success of management strategies: if effective, may mitigate or solve negative impacts- indeed high impact sites are often regulated • Growth and change over time(rise of pleasure periphery) Doxey’s model may also be used • Type of leisure/tourism or location • probably less successful: a descriptive use of case studies in no particular order <p>Better candidates will:</p> <ul style="list-style-type: none"> • Justify their focus and framework more effectively • Set up criteria to evaluate the title e.g. carrying capacity, resilience. • Acknowledge the negatives and positives but focus on the extent of negative impacts select and justify a more balanced range of examples from leisure and tourism
Research examples	<p>Expect a wide range:</p> <ul style="list-style-type: none"> • Likely to be popular are Antarctica, Machu Picchu, Tsavo, Bryce, Yellowstone, Galapagos, various national parks and honeypot sites. • Credit local research and other fieldwork for example to Country/National Parks or coastal rural areas e.g. Slapton • There will be others

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