

G3a

MARK SCHEME – JANUARY 2013

INFORMATION FOR EXAMINERS

Mark the answers according to the level descriptors in the generic mark bands and when determining the mark and taking everything into account, allocate it on the principle of 'best fit'. The mark awarded should be the one that most fairly reflects the achievement against the level descriptor. It is not necessary for every single aspect of a level descriptor to be met for the mark awarded.

If candidates answer in a way that is not anticipated by the mark scheme, but provide an acceptable answer to the question set, please use the generic mark scheme on pages 2 and 3 to determine an appropriate mark. If in doubt, please consult your team leader.

Theme 1 Extreme Environments**Q.1 'Climate is the key characteristic that makes a desert environment extreme.' Discuss. (1.1) [25]**

Candidates:

- (i) should show knowledge and understanding of the climatic characteristics of a desert environment that make it extreme;
- (ii) should show knowledge and understanding of the biotic and soil characteristics of a desert environment that make it extreme;
- (iii) should show the ability to discuss the inter-relationships between climatic, biotic and soil characteristics; better candidates should discuss the contribution of climate to the concept of extreme.

Answers should examine the climatic characteristics of deserts with low rainfall totals and high rainfall variability, extreme rainfall events, high evapotranspiration rates, large scale variations in temperature at a diurnal or seasonal level and aeolian elements. Candidates are likely to broadly agree with the statement, but acknowledge that desert soils and vegetation characteristics also contribute to the concept of 'extreme'. The soil types of desert environments, aridisols, solonchak and solonetz, result not only from the lack of moisture and high evaporation rates, but also from variations in geology, relief and the lack of vegetation cover. Reference should also be made to the need for special adaptations required by biota to overcome climatic and soil characteristics. Where only the desert climate is mentioned, the answer is unbalanced and unlikely to reach beyond the **'average' (Level 3)** category. The range of climatic, biotic and soil characteristics need to be discussed in a detailed and balanced way and the contribution of climate to the concept of extreme also needs to be discussed for candidates to reach the **very good (Level 5)** category. Expect examples to be well integrated in the answer. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Q.2 Examine the positive and negative outcomes of human activity in the tundra environment. (1.5) [25]

Candidates:

- (i) should show knowledge and understanding of the positive as well as the negative outcomes of human activity in the tundra environment;
- (ii) should show the ability to examine the positive as well as the negative outcomes of human activity; better candidates should provide a more detailed examination.

Human activities that may be identified include tourism and mineral exploitation. It is not expected that these are considered in the context of both latitude *and* altitude, but better candidates may examine both. The approach to the question may be regional by investigating two areas such as arctic Canada and the Alps or thematic by looking at human activities individually. (Note that the specification mentions only alpine tundra, but the Teachers Guide refers to both alpine and arctic tundra). Candidates are likely to make reference to the negative ecological and environmental outcomes of human activity, due to the fragile and special qualities of the tundra with explanation and illustration of this fragility, as well as negative social outcomes and argue that there are also economic (employment), social (education) and environmental (conservation) positive outcomes of human activity. To reach the **very good (Level 5)** category of assessment, candidates need to examine the positive and negative outcomes and are likely to discuss the imbalance between the two. Expect examples to be well integrated in the answer. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Theme 2 Landforms and their Management

Glacial Environments

Q.3 Examine different processes and landforms associated with climatic fluctuations in glacial environments. (1.1-1.5) [25]

Candidates:

- (i) should describe and explain the relationship between colder periods and the processes and landforms of glacial erosion associated with glacial advance and high-energy levels;
- (ii) should describe and explain the relationship between warmer periods and the processes and landforms of glacial deposition and fluvio-glacial deposition/erosion associated with glacial retreat;
- (iii) should show the ability to examine the relationship between climatic fluctuations and associated processes and landforms; better candidates should provide a more detailed examination.

Geomorphological processes and associated landforms can be linked to global events that changed climate. Glacial advance occurs on different time-scales associated with fluctuations in climate such as during the glacials of the Pleistocene epoch and 'Little Ice Age' resulting in higher energy levels and the increased erosion in the form of abrasion and plucking, creating major landforms of glacial erosion. Glacier retreat associated with inter-glacials of the Pleistocene epoch and present-day global warming result in reduced energy levels and increased glacial deposition and fluvio-glacial processes and associated landforms. However, the relationship is often more complicated than this as can be understood through the study of the 'Younger Dryas', a short lived, but substantial, temperature fluctuation at the end of the last glacial cycle. This was probably driven by a massive influx of cold fresh water into the N. Atlantic due to recession of American ice and release of ice-dammed lakes, resulting in the re-growth of glaciers in upland Britain producing cirque moraines such as Cwm Idwal, Brecon Beacons. To reach **very good (Level 5)** there needs to be an examination of the relationship. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Answers should deal with at least two glacial landforms. Some candidates may structure the whole answer around two or more selected landforms, but it is permissible for a broader approach to be taken with reference being made to a number of landforms by way of illustration.

Q.4 Assess the success of strategies used to manage glacial environments. (1.6) [25]

Candidates:

- (i) should show knowledge and understanding of the problems arising from the impact of glacial processes and/or landforms on human activity **or** from the impact of human activities on glacial environments;
- (ii) should show knowledge and understanding of the strategies put in place to manage these impacts;
- (iii) should show the ability to assess the effectiveness of the above strategies; better candidates should make an assessment of the effectiveness of the strategies discussed throughout, whereas the average candidate may only assess the strategies in passing or perhaps briefly in their conclusion.

Candidates need to demonstrate their knowledge and understanding of the problems arising from the impacts of glacial processes and/or landforms on human activity **or** the impact of human activity on glacial environments. There may be a discussion not only of the nature, but also of the seriousness of the impacts.

In order to assess the effectiveness of strategies adopted to deal with the impacts, candidates will need to briefly describe the strategies. Strategies will vary depending on the glacial environment chosen. The assessment should involve an evaluation of both the positive and negative aspects of the strategies adopted in relation to the aims of the strategies implemented. For a **very good (Level 5)** response there needs to be an assessment element. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Coastal Environments

Q.5 Examine the role of sea level change in the development of coastal landforms. (1.2 & 1.3) [25]

Answers should deal with at least two landforms or a stretch of coast. Some candidates may structure the whole answer around two or more selected landforms, but it is permissible for a broader approach to be taken with reference being made to a number of landforms by way of illustration.

Candidates:

- (i) should show knowledge and understanding of the effect of sea level rises on the development of coastal landforms and/or;
- (ii) should show knowledge and understanding of the effect of sea level falls on the development of coastal landforms;
- (i) should show the ability to examine the effects of sea level change on the development of the coastal landforms discussed; better candidates should provide a more detailed examination.

A change in sea level alters energy inputs and outputs and is therefore important for the development of coastal landforms. Although the daily movement of the tide influences micro-scale coastal features such as wave-cut notches, it is the macro-scale landforms associated with the Quaternary ice age and tectonic activity and the resultant major changes in base level that will be the focus of candidates' responses. In many cases it is not possible to be certain about the precise cause of an observed change in sea level, so it is the relative sea level change (the balance between sea level and land level) that is important. A positive sea level change, caused by either a rise in sea level or fall in land level gives rise to **transgressive** conditions and the drowning of coastal areas and/or the onshore migration of some landforms such as beaches. With sea level rise, marine processes dominate. As sea level rises, the zone of active marine processes also rises and the coastal zone is partially submerged. The result is distinctive landforms such as rias, fjords, fjards, estuaries, Dalmatian coastlines and shingle beaches (e.g. Chesil Beach). A negative sea level change, caused by either a fall in sea level or rise in land level, gives rise to **regressive** conditions and associated emergent features such as fossil cliff-lines and raised beaches where sub-aerial processes dominate. Since the question is about examining the effects of sea level change on the development of coastal landforms, for a **very good (Level 5)** response there needs to be an examination of the effects of sea level change, with reference being made to other factors that influence the development of coastal landforms such as geology, differences in energy levels and human intervention. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Q.6 Assess the success of strategies used to manage coastal environments. (1.6) [25]

Candidates:

- (i) should show knowledge and understanding of the problems arising from the impact of coastal processes and/or landforms on human activity **or** from the impact of human activities on coastal environments;
- (ii) should show knowledge and understanding of the strategies put in place to manage these impacts;
- (ii) should show the ability to assess the effectiveness of the above strategies; better candidates should make an assessment of the effectiveness of the strategies discussed throughout, whereas the average candidate may only assess the strategies in passing or perhaps briefly in their conclusion.

Candidates need to demonstrate their knowledge and understanding of the problems arising from the impacts of coastal processes and/or landforms on human activity **or** the impact of human activity on coastal environments. There may be a discussion not only of the nature, but also of the seriousness of the impacts. In order to assess the effectiveness of strategies adopted to deal with the impacts, candidates will need to briefly describe the strategies. Strategies will vary depending on the coastal environment chosen. The assessment should involve an evaluation of both the positive and negative aspects of the strategies adopted in relation to the aims of the strategies implemented. For a **very good (Level 5)** response there needs to be an assessment element. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Theme 3 Climatic Hazards

Q.7 Describe and account for the distinctive characteristics of *one or more* climatic types. (1.3) [25]

Expect candidates taking the temperate climatic region to largely limit their responses to the West European climatic type and candidates taking the tropical climatic region to limit their responses to one climatic type e.g. the monsoon type or the savanna type. The question does not demand that candidates deal with the entire climatic region, but some may choose to do this and this is equally very acceptable.

Candidates should clearly describe distinctive climatic characteristics of their chosen climatic type in terms of temperature, precipitation (type, amount and distribution), prevailing winds, humidity and pressure, together with important diurnal and seasonal variations. In accounting for the above candidates will need to cover the basic factors influencing the formation and location of the distinctive climatic type chosen and its seasonality in terms of:

- (i) Global atmospheric circulation;
- (ii) The seasonal movement of the ITCZ and pressure and wind belts associated with the apparent movement of the sun's overhead position through the year;
- (iii) The effects of warm and cool ocean currents, orographic influences and temperature differences between continental land masses and ocean waters.

To reach the **very good (Level 5)** category, reference needs to be made to explanations that are specific to the particular climatic type(s) chosen, which may include orographic influences, variations in the path of upper jet streams and the interaction of different air masses. To reach this category, students should also demonstrate a **detailed** knowledge the climatic characteristics of their chosen climatic region. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Q.8 Discuss strategies to reduce the impact of hazards associated with high-pressure systems. (1.6) [25]

Candidates:

- (i) should show a knowledge of the damaging effects of hazards associated with high-pressure systems;
- (i) should show an understanding of the strategies employed, but better candidates will show more detailed knowledge of a wider range of strategies;
- (iii) should show the ability to discuss the strategies implemented to reduce the impact of hazards associated with high-pressure systems; better candidates should provide a more detailed discussion.

Within either the tropical or the temperate region, candidates may refer to the effects of a hazard associated with anticyclonic situations. The effects discussed are likely to be both environmental and human (demographic, economic and social).

The environmental effects of hazards associated with high-pressure systems in tropical climatic regions may include the effect on the water table, soil–water movement, land degradation and vegetation. The effects on population might include migration, food supply problems, famine and health. The environmental effects of hazards associated with high pressure systems in temperate climatic regions may include impacts on water–resource systems when rivers may be used for water supply, reservoirs emptied and HEP production reduced. The effects on population may include water rationing. Although for temperate regions the emphasis is likely to be on a drought spell, some candidates may refer to the hazards associated with winter anticyclones such as frost and fog plus pollution leading to impacts such as difficult driving conditions and dangers for shipping.

When discussing the measures taken to reduce the impacts of hazards associated with high- pressure systems, candidates may present logically sequenced points progressing from monitoring, prediction and warning, immediate response to lessen the impact once it has occurred to long-term planning.

To reach **very good (Level 5)** a well-balanced answer with some depth of discussion is needed. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Theme 4 Development

Q.9 Account for some of the changes in global patterns of development.

(1.4) [25]

Candidates:

- (i) should show a knowledge and understanding of where some of the changes in global patterns of development are taking place;
- (ii) should show a knowledge and understanding of why changes are taking place and the associated effect on global patterns of development.

Whilst candidates may refer to particular examples of change when identifying changes, these should be linked to patterns of change by indicating that these examples are illustrative of more general aspects of change. In accounting for these changes reference needs to be made to the factors responsible for change including changing definitions and concepts of development, economic forces, changing external relationships and changing internal conditions which will influence a particular country's or world region's position in the global development spectrum. Reference also needs to be made to the effect of change on accepted patterns of world development such as the North/South divide and LEDC/MEDC divisions. The emergence of South East Asian NICs, the BRIC countries (Brazil, India, China and Russia) and CIVETS (Colombia, Indonesia, Vietnam, Egypt, Turkey, South Africa) countries may be used as a good illustration of the effect of economic change on changes in pattern. In general development changes are seen as positive, but in the case of a number of African countries the change may be negative and the recognition of this and the reasons for it are worthy of good credit. Answers need to provide clear explanatory comment together with reference to altered patterns to get into the **very good (Level 5)** category of assessment. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Q.10 'Reducing the development gap has its costs.' Discuss.**(1.6) [25]**

Candidates:

- (i) should show knowledge and understanding of some of the strategies implemented to reduce the development gap;
- (ii) should show knowledge and understanding that each of the different strategies have their associated costs as well as benefits; better candidates should provide a more detailed discussion.

Candidates may discuss the role of aid, free and fairer trade, FDI and initiatives for debt reduction. A distinction may be made between 'top-down' and 'bottom-up' strategies. Answers must discuss the costs and benefits of the strategies employed in order to achieve a **'very good'** (Level 5) category of response, but this does not necessarily have to be equally balanced. Evaluative comment should make reference to both the positive (improved human development indicators and economic growth rates) and negative effects on development (such as inequality, exploitation, unfair terms of trade, demands of SAPs, corruption and environmental deterioration) of the initiatives discussed. The discussion may be supported by appropriate exemplification, with the candidate illustrating their discussion with reference to at least one named country such as Vietnam, where although FDI, improvements in trade (membership of ASEAN 1995 and the WTO 2006), together with aid (DFID £50 million/yr) have operated to improve human development indicators (poverty fell from 58% in 1992 to 12% in 2010) and economic growth rates significantly since the 1980s, there have been negative effects (inequality, corruption and environmental deterioration) associated with these initiatives. Some candidates may focus their discussion on the costs associated with aid; this approach is acceptable, but will need to be developed in considerable depth and detail to get beyond **good (Level 4)**. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Theme 5 Globalisation

Q.11 Account for some of the changes in global patterns of manufacturing.
(1.3) [25]

Candidates:

- (i) should show knowledge and understanding of the changing nature and distribution of global manufacturing activity;
- (ii) should show a knowledge and understanding of the reasons for these changes.

Candidates are likely to refer to the changing nature and distribution of global manufacturing activity linked to the decline of traditional manufacturing in MEDCs and the increased developments in manufacturing in NICs, RICs and LEDCs. Candidates will probably develop their answers by discussing the rapid expansion of the NICs in terms of their percentage share of manufacturing output. When examining the reasons for such changes, candidates are likely to focus on the economic (role of TNCs, product life cycle and NIDL, consumer demand in MEDCs), technological changes (improvements in transport, use of the internet, tele-sales) and political changes (trading blocs and role of international organisations) which have resulted in increasing manufacturing production in LEDCs. Candidates have the opportunity to link the factors with the change in the distribution of manufacturing activity. Answers need to provide clear explanatory comment together with reference to altered patterns to get into the **very good (Level 5)** category of assessment. Expect examples to be well integrated in the answer. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Q.12 'The costs of globalisation outweigh the benefits.' Discuss. (1.4 ,1.5, 1.6) [25]

Candidates:

- (i) should show knowledge and understanding of the costs that result from globalisation;
- (ii) should show knowledge and understanding of the benefits that result from globalisation;
- (iii) should show the ability to assess the overall impact of globalisation: better candidates should make a reasoned assessment of whether the globalisation results in more costs than benefits throughout, whereas the average candidate may only make their assessment in passing or perhaps briefly in their conclusion.

The question is a very open one and candidates may approach it in a number of different ways. Candidates may focus entirely on the globalisation of economic activity or widen their discussion to include the costs and benefits of political and cultural globalisation. If the focus of the response is on the globalisation of economic activity reference needs to be made to the fact that globalising TNCs have the opportunity to choose locations for their operations that they perceive to be most advantageous. Costs are a prime consideration. Some locations are less favoured both in MEDCs and LEDCs (particularly sub-Saharan African countries). Such regions are the losers. The process of globalisation also has negative social and environmental effects on MEDCs, LEDCs and NICs. There are also benefits from globalisation. A global shift of manufacturing and, more recently services, to NICs and RICs has brought opportunities for employment and economic development to many parts of the world, especially India, China and south and south-east Asia as well as benefits to investing countries and companies. Expect examples of the operations of named TNCs/MNCs and their positive and negative impacts on economic activity, society and the environment to be well integrated into the answer. The costs of cultural globalisation include the lack of local cultural diversity, the loss of cultural identity and the development of a homogenised, westernised consumer culture with benefits of greater cultural integration. Benefits of political globalisation include the reduced possibility of war between developed countries, an increase in free trade between countries, the propagation of democratic ideals (such as the 'Arab Spring'), increased interdependence of nation-states and the resolution of global environmental problems like cross-boundary pollution, over-fishing on oceans and climate change. Costs of political globalisation include the rise of fundamentalism and associated terrorism. To reach the **very good (Level 5)** category of assessment, candidates need to discuss the statement. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Theme 6 Emerging Asia

CHINA

Q.13 Examine the factors affecting the growth of new industries in China. (1.2) [25]

Candidates:

- (i) should show knowledge and understanding of the factors that have led to the growth of new industries in China;
- (ii) should show the ability to examine the different factors discussed; better candidates should provide a more detailed examination.

Candidates may identify how industry in China has grown in the last thirty years, with the decline of many old manufacturing industries owned by the state (SOEs) with mainly strategic SOEs left such as steel, petrochemicals and cars gaining ground in global markets; the transfer of SOEs to private ownership leading to increased efficiency and modernised production; the crucial role of FDI with foreign firms located in SEZs; the concentration of new industry in coastal cities and SEZs; the growth of new industries – all kinds of modern technology – and the growth of export markets based on low labour costs; rural–urban migration especially to east coast cities and the growth of many new small manufacturing firms – TVEs – in towns and cities. Other changes include fewer barriers to collaboration with foreign partners; more opportunities for using consultants and contract workers; increased productivity; more innovation; more high-end production; increased competition within China and increased commercialisation of scientific and technological research. Candidates also need to identify factors responsible for these changes that may include the failure of Mao’s socialist policies to create wealth and industrial prosperity, the realisation that China was being left behind in the global community, the need to modernise industry rapidly with the aim to get transfer of technology from foreign firms through FDI, the Open Door policy of Deng in 1978 and the need for resources e.g. oil and minerals for industrial development. Expect **'very good' (Level 5)** answers to show clear understanding of the factors involved and to support their answers with specific illustrative detail and examples. To reach the **very good (Level 5)** category of response, expect an examination of the factors discussed. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Q.14 'In China, economic growth is more important than the environment.' Discuss. (1.6) [25]

Candidates:

- (i) should show some knowledge and understanding of the different ways in which economic growth in China is compromising the environment; better candidates will show a more detailed knowledge and understanding;
- (ii) should show the ability to discuss the extent to which economic growth and environmental protection can both be achieved; better candidates should provide a more detailed discussion.

The relationship between the environment and economic growth is complex and poses something of a conundrum. As a country develops it uses more energy and mineral resources to support manufacturing. More offices, transport and houses all use natural resources. Most human activity, domestic and industrial, produces waste which has to be disposed of and in turn affects air quality. The optimistic view suggests that the range of demands on the environment can be managed in order to ensure a sustainable future. As a country becomes more developed it can develop the technology to use resources more sustainably and efficiently. Theoretically, the more wealthy a country the more it can afford environmental protection and could limit its environmental and ecological footprint. There is a growing environmental awareness among grassroots organisations and communities in China, but serious concern for environmental sustainability within the Politburo is still overridden by the desire for economic growth. Despite that, the Government response to Rio and Kyoto suggested some recognition of the need for sustainability and the Chinese signed the Kyoto Protocol in 1998, less than a year after it was set up. This was also intended to establish China as a leader of developing nations. China's Copenhagen pledge is to reduce its CO₂ emission per unit of GDP by 40 – 45% by 2020 compared to 2005 levels, raise the level of non-fossil fuels in primary energy consumption to 15% and increase forest coverage by 40 million hectares. Environmental concerns are being taken seriously, but bureaucratic problems and some corruption inhibit national policies being put into practice in local communities. For **very good (Level 5)** responses expect a detailed and balanced discussion. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

INDIA**Q.15 Examine the factors affecting the growth of industries in India. (1.2) [25]**

Candidates:

- (i) should show knowledge and understanding of the factors that have led to the growth of industries in India;
- (ii) should show the ability to examine the different factors discussed; better candidates should provide a more detailed examination.

Candidates may identify the growth of manufacturing industries, service and financial industries and in agriculture. Economic change includes the growth of modern steel, pharmaceuticals, textiles, clothing, and a substantial high-tech electronics sector e.g. mobile phones and the growth of service industries – call centres, back office jobs, outsourcing from Europe / US and the growth of entertainment industries (Bollywood). The factors responsible for this growth include economic change (the emergence and investment policies of transnationals together with the growth in Indian firms and also of an urban middleclass, educated population who have become consumers themselves, providing a large market for new consumer goods), technological factors (the speed and distance over which communications and movement can now take place due to computer, transport and communication technologies) and political change (the role of governments in encouraging outside investment e.g. the development of SEZs to attract FDI in Mumbai and Gopalpur). Candidates are most likely to argue that India's rural economy is still very important and has changed little, although there has been some developments in agribusiness in some states due to technological developments (Green Revolution) and political reform. Expect **very good (Level 5)** answers to show clear understanding of the factors involved and to support their answers with specific illustrative detail and examples. To reach the **very good (Level 5)** category of response, expect an examination of the factors discussed. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

Q.16 'In India, economic growth is more important than the environment.' Discuss. (1.6) [25]

Candidates:

- (i) should show some knowledge and understanding of the different ways in which economic growth in India is compromising the environment; better candidates will show a more detailed knowledge and understanding;
- (ii) should show the ability to discuss the extent to which economic growth and environmental protection can both be achieved; better candidates should provide a more detailed discussion.

The relationship between the environment and economic growth is complex and poses something of a conundrum. As a country develops it uses more energy and mineral resources to support manufacturing. More offices, transport and houses all use natural resources. Most human activity, domestic and industrial, produces waste which has to be disposed of and in turn affects air quality. The optimistic view suggests that the range of demands on the environment can be managed in order to ensure a sustainable future. As a country becomes more developed it can develop the technology to use resources more sustainably and efficiently. Theoretically, the more wealthy a country the more it can afford environmental protection and could limit its environmental and ecological footprint. Environmental issues have been creeping up the political agenda in India, but the challenges of addressing poverty *as well as* managing the environment sustainably are huge. After the UN Conference on the Human Environment 1972, environmental issues were included in the national 5-year Plans. In the 1980s a Ministry of Environment & Forests was created and now there are numerous autonomous agencies, offices, institutions set up by national and state governments. There is a will to have environmental improvement, but often this conflicts with other demands and, in common with most other countries, often puts government departments at odds with each other. India faces many of the same environmental issues as developing countries. It is challenged by the need to meet the demands of industrialisation for development while understanding the necessity for environmental sustainability. The rates of urban and rural change make it hard to ensure that the best environmental decisions are taken. India's democracy can hinder progress. The sheer scale of the environmental challenges is daunting, yet progress is being made at national and grassroots levels. For **very good (Level 5)** responses expect a detailed and balanced discussion. **Average (Level 3)** responses will be characterised by secure, but generalised, content, whilst **good (Level 4)** responses should contain good factual knowledge and understanding.

G3 Assessment Objectives Grid

Question	AO1 Knowledge & Understanding	AO2 Application	AO3 Skills	Total
G3 A	13 (extend geographical ideas, concepts & processes)	7 (evaluations & connections between aspects of Geography)	5 (reach conclusions & communicate findings)	25
G3 A	13 (extend geographical ideas, concepts & processes)	7 (evaluations & connections between aspects of Geography)	5 (reach conclusions & communicate findings)	25
G3B (a) (b)	3 6 (geographical concepts)	3 3 (apply understanding and evaluation of techniques)	4 6 (use a range of skills & techniques)	10 15
	35 46%	20 27%	20 27%	75 (100%)

INFORMATION FOR EXAMINERS

Mark the answers according to the level descriptors in the mark bands and when determining the mark and taking everything into account, allocate it on the principle of 'best fit'. The mark awarded should be the one that most fairly reflects the achievement against the level descriptor. It is not necessary for every single aspect of a level descriptor to be met for the mark awarded.

If candidates answer in a way that is not anticipated by the mark scheme, but provide an acceptable answer to the question set, please use the generic mark scheme on page 2 to determine an appropriate mark. If in doubt, please consult your team leader.

GENERIC MARK SCHEME FOR G3b

G3B contains 10 two-part questions which, for Part (a) are marked out of 10 marks and for (Part b) are marked out of 15 marks.

Part (a) is marked in three levels.

Level	Description of quality	Marks Range	Characteristics of level (It is not necessary to meet all of the characteristics to be placed in a level)
3	Very good Good	8-10	Very good knowledge and understanding used critically which is applied to aspect(s) of research enquiry examined. The work is obviously based on research and uses it to provide good supporting evidence. A clear, coherent mini-essay that is grammatically correct. May include well-annotated maps and/or diagrams to support answer. Allow full marks for thorough description.
2	Average	4-7	Good knowledge and understanding with some critical appreciation of the aspect(s) of research enquiry examined. A clear structured mini-essay that uses good quality of written communication but argues points soundly rather than strongly. Appropriate diagrams and/or maps not always fully labelled.
1	Weak	1-3	Some limited knowledge and understanding of aspect(s) of research enquiry examined but some points may be partial and lack exemplar support from research. 'All I know' rather than an answer to the question. Language is variable; lacking paragraphs and may have weak grammar and syntax.

Part (b) is marked in four levels.

Level	Description of quality	Marks Range	Characteristics of level (It is not necessary to meet all of the characteristics to be placed in a level)
4	Excellent Very Good	13-15	Very good knowledge of the topic studied and a critical awareness of the route to enquiry and findings as applied to the topic in question. Provides very good support from own research. Written in a sound, coherent essay style which is grammatically correct with a sequence of ideas that enable the question to be answered fully. Concludes in relation to the question. May include well-annotated maps and/or diagrams to support answer.
3	Good	9-12	Good knowledge of the topic with some gaps. Understanding of the route to enquiry and findings is present with some critical awareness, but this may be sound rather than strong. A clearly structured essay that uses good quality of written communication. Appropriate diagrams and/or maps not always fully labelled.
2	Average Marginal	5-8	Knowledge and understanding present but some points may be partial and lack exemplar support from research theme studied or may only be of potential relevance to the research topic. Language is straightforward and will possibly lack paragraphing. Perhaps going off on a tangent with an 'all I know' answer.
1	Weak	1-4	Some knowledge and understanding but with gaps and misconceptions that indicate an inability to understand the question. Evidence that the research was superficial. Only limited support from research. Language is variable and slips occur.

GB3b

**CONTEMPORARY THEMES AND RESEARCH IN GEOGRAPHY
MARK SCHEME - WINTER 2013**

Q.1 (a) Outline the importance of planning to the success of an investigation into (context). [10]

There is no requirement to draw parallels with their own study, but this should be credited if it helps to develop the answer. Candidates might demonstrate knowledge of the planning stages involved in the sequence of investigation, found in the WJEC document, 'Enquiry approach which can be applied to G1, G2 and G3B'.

The stages from this document can be summarised as:

1. Planning Stages of the Investigation.
2. Data Collection.
3. Data Refinement and Display.
4. Description, Analysis and Interpretation.
5. Conclusion and Evaluation.

From the document the **planning stage** includes the following detail.

- Develop your knowledge of the topic by consulting geographical literature or searching the Internet.
- Decide on issue to be investigated and develop your knowledge of the places being studied.
- Decide on the location for the investigation and develop your knowledge of the place(s) being studied.
- Visit your chosen location for a pilot survey.
- Undertake a risk assessment.
- Obtain any equipment (if required) checking availability and how to operate it.
- Prepare recording sheets/ design questionnaire surveys.
- Decide on sampling strategy/ies.
- Check weather conditions if relevant.
- Decide on day, date and time of survey.
- Arrange appointments if your investigation involves interviews/visits.

Alternatively candidates may approach the question by outlining **planning elements** in **all** five stages. Descriptions should be **relevant** to the theme under investigation, while better candidates may link their description specifically to their context.

From the WJEC list of command words: '**outline**: Give a brief summary of the main characteristics'. Better responses may comment on the relative importance of planning criteria.

Level 3 8-10 marks	A detailed description and sound understanding of the necessary planning process in the context of the selected research area perhaps developed in some depth, with some appreciation of its importance. Candidates can access this level without reference to their own investigation, although if mentioned it should be given credit.
Level 2 4-7 marks	Some description of the planning process which may be either, generic in nature, or incomplete or unbalanced in coverage. Candidates may provide arguments for the planning processes described.
Level 1 1-3marks	A simple and/or basic description of the planning process, which will probably lack depth and detail or simply a list of the general planning stages.

- Q.1 (b) Summarise the findings of your personal research into (context) and critically examine your methods of data presentation. [15]**

You should state clearly the title of your research.

The content will depend on the investigation undertaken, but in their answers candidates should summarise the findings drawn from their personal research, and discuss the methods used to present information in a critical manner.

Methods of presentation should be varied and appropriate for the topic. Methods of presentation may be supported by diagrams and illustrative material.

From the WJEC list of command words: '**examine**: candidates are expected to investigate in detail, offering evidence for or against a point of view or judgment. Thus candidates are expected to make some sort of judgment about how well their methods of presentation support their findings'.

Credit breadth and / or depth; responses which give one aspect – either findings or data presentation – in more depth than the other are less likely to be awarded Level 4 marks.

<p>Level 4 13-15 marks</p>	<p>Answers summarise clearly the findings of their investigation, with supporting evidence. An appropriate range of presentational methods are discussed, and are linked to the findings and data used. Answers that reach this level are likely to provide a balanced argument about the suitability of the methods used, which may in turn be supported by evidence.</p>
<p>Level 3 9-12 marks</p>	<p>Answers summarise the findings of their investigation, possibly with some supporting evidence. Presentational methods are covered but this may be either a range of appropriate methods with limited discussion or fewer but in greater depth. Answers might contain a generalised discussion of the suitability of the methods used or cover one or two in depth.</p>
<p>Level 2 5-8 marks</p>	<p>Answers contain a brief summary of the findings of their investigation. Some discussion of the suitability of the methods of presenting information. Answers with no reference to the context could reach this level. Answers that only address one part of the question can reach the top of this level.</p>
<p>Level 1 1-4 marks</p>	<p>A basic answer that briefly describes the findings and/or methods.</p>