Question	AO1 Knowledge & Understanding	AO2 Application	AO3 Skills	Total
G3 A Themes 1-3	13 (extend geographical ideas, concepts & processes)	7 (evaluations & connections between aspects of Geography)	5 (reach conclusions & communicate findings)	25
G3 A Themes 4-6	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%)

Assessment Objectives Grid for Geography G3

Command Words WJEC A2 Geography

Account	Give reasons for.	
Assess	This is an evaluative question - weigh up the importance of the subject. This means that there are a number of possible explanations/outcomes. You need to give the main ones and then say which you tend to favour.	
Classify	Divide into groups or categories.	
Discuss	Usually you are expected to build up an argument about an issue and to present <u>more than one side</u> of the evidence with supporting examples. This creates a written debate identifying both positive and negative points and then you must reach a conclusion from the debate. You should both describe and explain. Try to create a balanced answer and summarise your view at the end.	
Evaluate	Evaluate requires an overall statement of the overall quality or value of the feature/issues being considered. You need to <u>state</u> <u>a viewpoint</u> , after consideration of the evidence. In both cases your own judgement/opinion is wanted. Although an opinion cannot be marked incorrect, credit is given for the justification of the position you've taken up. It is usually best not to adopt an extreme viewpoint; a balanced answer is best.	
	With assess and evaluate, particularly in G4, there are many occasions where there are two sides to an argument and evidence should be put forward for both sides, or that certain strategies or actions may have beneficial outcomes but also costs attached to them.	
	Opinions and conclusions should be presented clearly and supported with appropriate evidence and sound argument.	
To what extent	Give possible explanations for and against and justify which you	
How far do you agree	tend to favour	
Examine	Investigate in detail, offering evidence for or against a point of view or judgement.	

SECTION A: CONTEMPORARY THEMES IN GEOGRAPHY

Summary	Marks	Criteria
Descriptor	out of 25	
Very good	21- 25	 A response that demonstrates a high order of conceptual understanding and an appreciation of the holistic nature of Geography within the context of the question. Critical analysis, synthesis and assessment of the connections between the different elements of the subject. Wide-ranging, thorough and accurate knowledge. Detailed and possibly original exemplification. Well-directed and well-annotated sketch maps/diagrams. A well-structured, coherent and logical response. Complex ideas expressed clearly with few, if any, errors in grammar, punctuation
		and spelling.
Good	16 - 20 11 - 15	 A confident grasp of relevant concepts and principles. Sound analysis, synthesis and assessment of some of the connections between the different elements of the subject. Good factual knowledge and understanding. Appropriate exemplification. Appropriate, basically accurate annotated sketch maps/diagrams. The response is clear, coherent and appropriately structured. The quality of English is consistently sound. At the lower end Arguments may not be fully developed. Some lack of balance. Minor flaws in logical ordering or linguistic expression. Diagrams not well-integrated. A reasonable grasp of relevant concepts and principles. Arguments are partial with points limited in range, depth and development with only limited linkage. A secure, straightforward base of knowledge and understanding.
Marginal	6 10	 Examples are superficial and may be variable. Limited use of basic diagrams. There may be some loss in coherence. Language is correct but simplistic. <u>At the lower end</u> An unfocused or potentially relevant response. Weaknesses in structure and expression.
Marginal	6 - 10	 Some grasp of concepts and principles is evident, but there may be inaccuracies and misconceptions. Arguments are weakly presented and most points are generalised or of partial relevance to the question with little or no linkage. Some knowledge and understanding, but it is limited in scope. There is limited use of examples. Sketch maps/diagrams contain inaccuracies. The response lacks fluency. Expression may be poor and there are basic errors in the spelling of geographical terms. <u>At the lower end</u> Understanding of the question is weak.
Weak	1 - 5	 Organisation of material is poor and although occasional relevant points are made, much is irrelevant. The response demonstrates poor knowledge and understanding and contains errors. Little use of examples or if evident they are irrelevant to the question. The response may be incomplete or difficult to follow. The answer is poorly written and contains basic errors in the spelling of geographical terms.

GCE GEOGRAPHY CONTEMPORARY THEMES IN GEOGRAPHY G3 SECTION A

INFORMATION FOR EXAMINERS

Mark the answers according to the level descriptors in the generic mark scheme 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 a candidate answers in a way that is not anticipated by the mark scheme, but has an acceptable answer to the question set, please use the generic mark scheme to determine an appropriate mark. If in doubt, please consult your team leader.

Theme 1 Extreme Environments

Q.1 Assess the effectiveness of strategies used to manage human activity in desert environments. (1.3) [25]

Guidance

Candidates:

- i. should show knowledge and understanding of human activity in desert environments;
- ii. should show knowledge and understanding of strategies used to manage human activity in desert environments;
- iii. should show the ability to assess the effectiveness of strategies.

Indicative content

In relation to desert environments, candidates may examine the threats posed by population growth, agriculture, tourism and mineral exploitation. They may refer to the negative impacts on a variety of elements of the desert environment. Comment could be made on the role of agriculture in desertification at a continental scale, the pollution of soils and ecosystems by mineral exploitation such as that in Australia or the damage caused by off-roading in Dubai. Do not expect all these for full marks. When discussing the strategies used to manage human activity, candidates may present a range from conserving the desert environment, alleviating the impacts of human activity, controlling the use of desert environments and monitoring the impacts of human activity. Candidates may display a grasp of a number of these, but do not expect all to be considered as candidates may choose to use examples that enable only a limited number of strategies to be discussed. The assessment may come in the form of comparisons in place elsewhere to manage human impact or on the basis of the extent to which they reduce the impact of different forms of human activity. Where the strategies are only described and there is minimal assessment, the answer is unbalanced and unlikely to reach beyond the average category. Expect the effectiveness of strategies to be assessed in a detailed and balanced way for candidates to reach the very good (Level 5) category and examples to be well integrated in the answer. Average (Level 3) responses should be characterised by secure, but generalised, content and good (Level 4) responses by good factual knowledge and understanding.

Q.2 Examine the characteristics that make the tundra environment extreme. (1.4) [25]

Guidance

Candidates:

- i. should show knowledge and understanding of the climatic, biotic and soil characteristics of the tundra environment that make it extreme;
- ii. should show the ability to examine the inter-relationships between climatic, biotic and soil characteristics that make the tundra environment extreme.

Indicative content

Expect candidates to examine the climatically stressed arctic and/or alpine tundra environment with short and cool growing seasons. Latitudinal tundra occurs in the Arctic and to a much lesser extent in the Antarctic, where the environments are characterised by cool, short growing seasons. Altitudinal tundra occurs under a similar climatic regime. After temperature, the second most-important environmental factor affecting most tundra communities is moisture. However, there are important environmental differences between these two tundras, with the alpine type being subject to much larger variations of daily temperature during the growing season, as well as more intense inputs of solar radiation during the day. In contrast, arctic tundra can experience continuous exposure to the sun's rays, with 24-hour days for an extended period during the growing season. The interrelationships may be discussed in terms of the need for special adaptations required by biota to overcome climatic and soil constraints. Where only the tundra climate is mentioned, the answer is unbalanced and unlikely to reach beyond the average category. Expect the range of climatic, biotic and soil characteristics to be linked and discussed in a detailed and balanced way for candidates to reach the very good (Level 5) category and examples to be well integrated in the answer. Average (Level 3) responses will be characterised by secure, but generalised, content and **good** (Level 4) responses by good factual knowledge and understanding.

Theme 2 Landforms and their Management

Glacial Environments

Q.3 Describe, and assess the role of, depositional processes in the development of *one or more* glacial landforms.

(1.3) [25]

Guidance

Candidates:

- i. should show knowledge and understanding of the processes of deposition operating in a glacial environment and the resultant landforms;
- ii. should show the ability to assess the role of depositional processes in the development of one or more glacial landforms.

Indicative content

Expect candidates to examine the production of one or more depositional landforms that are the result of predominantly glacial or fluvioglacial processes. Candidates may describe the processes and examine the production of landforms that are the result of predominantly glacial processes (lodgement till, drumlins, erratics, moraines) or landforms that may be the result of fluvioglacial deposition (eskers, kames, kame terraces, outwash plains, kettle holes). The focus of the essay is the relationship between process and landform. Some candidates may look at deposition alone whilst others may look at the relative influence of deposition compared to erosion. Either approach is acceptable and open to maximum credit. Candidates who focus on a set of landforms that are essentially erosional can only reach the top of good (Level 4) as long as the reference to deposition as an influence on their development is central to the discussion. Expect the role of depositional processes to be assessed in a detailed and balanced way for candidates to reach the very good (Level 5) category and examples to be well integrated in the answer. Average (Level 3) responses will be characterised by secure, but generalised, content and good (Level 4) responses by good factual knowledge and understanding.

Q.4 Describe the landforms and examine the processes associated with deglaciation. (1.4) [25]

Guidance

Candidates:

- i. should show knowledge and understanding of the landforms and processes associated with deglaciation;
- ii. should show the ability to examine the processes associated with deglaciation.

Indicative content

Expect candidates to describe the landforms and examine the processes associated with deglaciation. Candidates could examine the production of landforms that may pass through a series of process changes from glacial to periglacial into present day conditions. Relevant geomorphological processes could include mass movement processes (modifying valley profiles largely created by glacial erosion), fluvial processes (resulting in the infilling at the head of ribbon lakes), or weathering processes (breaking down glacial and fluvio-glacial deposits). Processes and landforms associated with deglaciation include periglacial processes and landforms. On areas of low relief important periglacial processes are frost heaving and thrusting and associated periglacial landforms are pingos and patterned ground. On slopes important periglacial process are freeze-thaw weathering and solifluction and associated periglacial landforms are blockfields, scree slopes and solifluction lobes and benches. Expect the landforms to be described and processes to be examined in a detailed and balanced way for candidates to reach the very good (Level 5) category and examples to be well integrated in the answer. Average (Level 3) responses will be characterised by secure, but generalised, content and good (Level 4) responses by good factual knowledge and understanding.

Coastal Environments

Q.5 Describe, and assess the role of, depositional processes in the development of *one or more* coastal landforms.

Guidance

(1.3) [25]

Candidates:

- i. should show knowledge and understanding of the processes of deposition operating in a coastal environment and the resultant landforms;
- ii. should show the ability to assess the role of depositional processes in the development of coastal landforms.

Indicative content

Expect candidates to examine the production of one or more coastal landforms that are the result of depositional processes. Candidates could examine the production of landforms that are the result of predominantly marine depositional processes (beaches, spits, barrier beaches, tombolos, cuspate forelands, sand dunes) or marine and fluvial depositional processes (saltmarshes, deltas) or examine the relative importance of sea level changes to deposition (estuaries). Some candidates may look at deposition alone whilst others may look at the relative influence of deposition compared to erosion. Either approach is acceptable and open to maximum credit. Candidates who focus on a set of landforms that are essentially erosional can only reach the top of good (Level 4) as long as the reference to deposition as an influence on their development is central to the discussion. Expect the role of depositional processes to be assessed in a detailed and balanced way for candidates to reach the very good (Level 5) category and examples to be well integrated in the answer. Average (Level 3) responses will be characterised by secure, but generalised, content and good (Level 4) responses by good factual knowledge and understanding.

Q.6 Assess the importance of geology in the development of coastal landforms.

(1.4) [25]

Guidance

Candidates:

- i. should show knowledge and understanding of the effect of the character of individual rocks and lithology (hardness, mineral composition, solubility) on the development of coastal landforms;
- ii. should show knowledge and understanding of the effect of geological structure (bedding, dip, faulting, and joints) on the development of coastal landforms;
- iii. should show the ability to assess the importance of geology on the development of the coastal landforms discussed.

Indicative content

Expect answers to 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. The influence of geology on landforms can readily be examined in a coastal environment as follows: discordant and concordant coastlines; differential erosion of coastlines; features of coastal erosion cliff profiles; caves, arches, blowholes; marine transportation - nature of load carried which provides the 'tools' for erosion; marine deposition - pebble - gravel - sand alluvium - mud sequence in a beach or spit sequence. Expect the role of geology to be assessed in a detailed and balanced way for candidates to reach the very good (Level 5) category, with reference being made to other factors that influence the development of coastal landforms besides geology such as differences in energy levels and human intervention. Expect examples to be well integrated in the answer. Average (Level 3) responses will be characterised by secure, but generalised, content and good (Level 4) responses by good factual knowledge and understanding.

Theme 3 Climatic Hazards

Q.7 Describe and explain the global patterns of surface pressure and winds.

(1.1) [25]

Guidance

Candidates:

- should show knowledge and understanding of the global patterns of surface pressure and winds;
- ii. should show knowledge and understanding of the reasons for these patterns.

Indicative content

Expect candidates to demonstrate their knowledge and understanding of global atmospheric circulation and its influence on the formation and location of global patterns of surface pressure and winds. Solar energy (insolation) 'powers the atmospheric system and the energy circulations within it' - the amount of solar energy (heat budget) received varies with latitude. The tropics have an energy surplus as they gain more from insolation than is lost by radiation, but the higher temperate and polar latitudes have an energy deficiency, losing more by radiation than is gained by insolation. This imbalance in energy distribution sets up a transfer of heat energy from the tropics to higher latitudes. This global transfer of energy is the basis of global atmospheric circulations which give rise to the low and high pressure belts and the planetary wind systems associated with the Earth's major convection cells - the Hadley, Ferrel and Polar Cells. Expect candidates to demonstrate a broad knowledge and understanding of the link between global atmospheric circulation and the distribution of surface pressure and winds, with surface winds blowing from high pressure to low pressure, but deflected by the Coriolis force. The main features are - low pressure, ascending air around the Tropics, associated with North-easterly and South-easterly Trade Winds, feeding into the ITCZ; Sub-Tropical Highs: these are the descending limbs of the Hadley Cells, large convective cells in both hemispheres with Mid-Latitude Westerlies generated between high pressure at 30° and low pressure at 60° N and S. The Polar Easterlies blow from high pressure areas at the Poles towards areas of low pressure at 60° N and S. Expect answers to provide a detailed description and clear explanations of global patterns of pressure and surface winds to get into the very good (Level 5) category of assessment. Average (Level 3) responses will be characterised by secure, but generalised, content and good (Level 4) responses by good factual knowledge and understanding.

Q.8 Discuss the effects on human activity of hazards associated with highpressure systems.

(1.5) [25]

Guidance

Candidates:

- i. should show knowledge and understanding of the hazards associated with highpressure systems;
- ii. should show knowledge and understanding of a range of effects on human activity of high-pressure hazards; better candidates may differentiate between the shortterm and long-term effects of high-pressure hazards;
- iii. should show the ability to discuss the effects.

Indicative content

Expect candidates to refer to hazards associated with high-pressure systems in either a temperate or tropical region. The hazards associated with high-pressure systems in tropical regions include drought, a falling water table, loss of vegetation, wild fires, soil erosion and desertification. The hazards associated with high-pressure systems in temperate regions in summer are drought, falling water tables and the loss of vegetation and winter hazards may include frost and fog, with air pollution intensifying the fog conditions.

The effects on human activity are demographic, economic and social and can be categorised as both direct and indirect. In tropical regions there may be reference to demographic effects at both time scales such as deaths and long-term migration. Economic effects may analyse losses in the short term such as reduced crop and livestock production, unemployment and increased food prices and costs in the long term, such as reduced tax revenues. Social effects may include observations on health (malnutrition, water rationing, increased fire hazards) and bereavement. There may also be consideration of the effects on the physical environment such as salinisation that impact human activity.

In temperate regions there may be reference to economic effects such as reduced crop and livestock production, the consequences for farmers and businesses, increased food prices, unemployment and reduced tax revenues during summer droughts and the effect on shipping and other forms of transportation of winter fog and frost. Social effects may include observations on health (water rationing, increased fire hazards in summer and atmospheric pollution and difficult driving conditions in winter) and disruption to schools. There may also be consideration of the effects on the physical environment such as ground subsidence that impact human activity.

The discussion may take a number of different approaches; an assessment of which effects are the most important, demographic, social or environmental; an assessment of whether short- or long-term effects are the most significant or an evaluation of the effects in different areas, MEDC/LEDC. Expect answers to provide exemplified detail of the effects of hazards associated with high-pressure systems together with some discussion of these 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.

Theme 4 Development

Q.9 Describe how and explain why development patterns are changing.

(1.4) [25]

Guidance

Candidates:

- i. should show a knowledge and understanding of why changes are taking place;
- ii. should show an understanding of the effect of the above on patterns of development.

Indicative content

Expect candidates to make reference 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. Expect reference also to the effect of the changes identified on accepted patterns of development such as the North/South divide and LEDC/MEDC divisions. The emergence of South East Asian NICs and the BRIC countries (Brazil, Russia, India and China) may be used as a good illustration of the effect of economic change on changes in pattern. Candidates may demonstrate their knowledge and understanding that individual countries have changed considerably. In terms of economic change some countries have declined or stagnated, some have developed slowly and some have developed beyond all expectations. The term differentiation is sometimes used to describe such changes. The 'Third World' or LEDCs can no longer be viewed as a homogenous block as different types of Third World/LEDC economies have emerged (NIC, RIC, OPEC, BRIC, CIVETS, MINT). In addition the Second World has collapsed and many First World countries are experiencing financial difficulties (PIIGS). Economic growth is also occurring among low-income countries in Africa and new middle-income countries include Ghana and Zambia with the African continent increasingly attracting more foreign direct investment which is projected to rise to \$150bn by 2015. Globalisation is the process by which it is now easier for companies and other organisations to operate internationally. The operations of TNCs (FDI), computer and transport technologies that have opened up the flow of information and communications together with the role of the WTO and trade blocs (such as NAFTA encouraging greater economic co-operation between Mexico, Canada and the USA) have enabled this to happen. All nations are open to outside influences of trade. multi-national operations and these external relationships have strongly influenced the development process. Expect answers to provide a clear description of changes in development patterns together with sound explanatory comment 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 and good (Level 4) responses by good factual knowledge and understanding.

Q.10 Making the world more equal is hindered by the operation of trade blocs.' Discuss.

1. (1.5) [25]

Guidance

Candidates:

- i. should show knowledge and understanding of the way in which trade blocs hinder the closing of the development gap;
- ii. should show the ability to discuss the extent to which other factors such as Third World debt, social constraints and cultural barriers are responsible.

Indicative content

Candidates are likely to agree broadly with the viewpoint that a major obstacle to development is the operation of trade blocs, which greatly benefit each member of the bloc but work to the detriment of countries outside the bloc as they face quotas or tariffs that make it difficult to sell the commodities they have to offer, undermining their economic development. Within blocs (EU, NAFTA), regulations often make it possible for producers, particularly of food crops, to generate huge surpluses. The surpluses are then sold, below cost price, on world markets (dumping). Countries outside the blocs find that the commodities being 'dumped' are the ones they have to sell, and below the price that would give them any profit. So their only means to economic development is undermined. Candidates may however argue that other factors such as indebtedness hinder the closing of the development. Countries that were at a low level of development in the past were loaned money through the World Bank and International Monetary Fund. Money that was generated firstly had to be spent on paying interest on the loan before repaying the debt, and reinvestment in the economy was impossible. Such countries became caught in a poverty trap. They became the Heavily Indebted Poor Countries (HIPC). Special arrangements to relieve this debt have been developed by richer nations, such as the Multilateral Debt Relief Initiative (MDRI) but many believe this is still not enough to allow real development to take place. Social constraints and cultural factors also act as a barrier to development. However a more critical viewpoint may be that trade blocs may help to make the world more equal (for example countries within a trading bloc such as ASEAN) or that other social and political factors operate to reduce the development gap such as debt agreements, aid and fairer trade for a variety of motives including alleviating international tension, hunger reduction and a sense of fairness. Expect the statement to be discussed in a detailed and balanced way 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 and good (Level 4) responses by good factual knowledge and understanding.

Theme 5 Globalisation

Q.11 Describe how and explain why companies globalise and shift locations.

(1.2 & 1.3) [25]

Guidance

Candidates:

- i. should show knowledge and understanding of the operations of TNCs;
- ii. should show knowledge and understanding of the reasons for these operations.

Indicative content

Candidates may begin with a definition of TNCs. The UN defines TNCs as corporations that 'possess and control means of production or services outside the country in which they were established'. Their size is measured by revenues, market capitalisation and, sometimes, employees. Most of the world's largest companies are American and include both manufacturing (General Electric) and service industries (Wal-Mart Stores). Significantly, the headquarters of TNCs are concentrated in the Brandt's 'North', but increasingly in Brandt's 'South'. A description of the globalisation and shifting locations of companies may include reference to the decentralisation that has occurred as a result of investment by TNCs in the three generations of NICs. NICs have created large companies of their own which are locating factories in developed countries such as Britain. Location factors influencing the global shift include the availability of a large, disciplined and skilled workforce, suitable infrastructure, political stability, government incentives and a large domestic market. When examining the reasons for such changes candidates are likely to focus on the economic (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). Expect answers to provide a clear description of how companies have globalised together with developed explanatory comment 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 and good (Level 4) responses by good factual knowledge and understanding.

Q.12 Examine the causes and effects of *cultural* globalisation.

(1.6) [25]

Guidance

Candidates:

- i. should show knowledge and understanding of some of the causes of cultural globalisation;
- ii. should show knowledge and understanding of the effects of cultural globalisation;
- iii. should show the ability to examine the causes and effects of cultural globalisation.

Indicative content

Candidates are expected to argue that globalisation has led to most countries being interlinked culturally. At the heart of much of the rise of cultural globalisation has been the massive expansion of the entertainment and communications industry fuelled, in particular, by the spread of television. Analysts point to the way new technologies and their exploitation such as commercial air travel, satellite television. mass telecommunications and the internet have created a world where billions now consume identical cultural products - such as music, soap opera and sporting events - and employ cultural practices they would never otherwise have encountered - such as foreign food preparations and foreign words and phrases. The internet is central to this new development, but also the spread of similar products often styled by TNCs (resulting in a product and lifestyle monoculture) and shared amongst people from many nations and cultural backgrounds. The effects 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 greater cultural integration. However the case for reduced cultural diversity is not a clear-cut one, some interesting and complex changes in the geography of consumption are taking place at regional and local scales, such as the McDonalds' menus in India remaining entirely vegetarian. Some candidates may also point to the rise of nationalism and fundamentalism as a reaction to cultural uniformity. Expect answers to provide an examination of the causes and effects of cultural globalisation to get into 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 and good (Level 4) responses by good factual knowledge and understanding.

Theme 6 Emerging Asia

CHINA

Q.13 Describe and account for variations in economic growth in China between coastal areas and the interior.

(1.2) [25]

Guidance

Candidates:

- i. should show knowledge and understanding of spatial variations in economic growth in China;
- ii. should show knowledge and understanding of the reasons for these variations.

Indicative content

Candidates are expected to outline the concentration of economic growth in the Special Economic Zones (SEZs) and Open Cities created in China since 1979. The PRC has established special economic zones in Shenzhen, Zhuhai and Shantou in Guangdong Province, Xiamen in Fujian province and designated the entire province of Hainan a special economic zone. These offer reduced restrictions on land, labour, wages, taxes and planning regulations to overseas firms, especially those involved in hi-tech industries. The SEZs were deliberately located far from the centre of political power in Beijing, minimising political influences. More specifically, the original four zones were sited in coastal areas of Guangdong and Fujian that had a long history of contact with the outside world through outmigration, and at the same time were near Hong Kong, Macao, and Taiwan. The choice of Shenzhen was especially strategic because it is situated near Hong Kong, the key area from which to learn capitalist modes of economic growth. The growth in economic activity in these locations has been reinforced by high levels of rural-urban migration, infrastructure improvements and the investment policies of TNCs. The result has been the emergence and dominance of economic activity in coastal areas, which have received most internal investment as well as having imported capital, technology and entrepreneurial skills, at the expense of the interior. Candidates may, however, make reference to the Western China Development project, created in 2000 to help the western provinces to catch up with coastal areas – the main components of the strategy include the development of transport, hydropower plants, energy, and telecommunications, enticement of foreign investment, increased efforts on ecological protection, promotion of education and retention of talent flowing to richer provinces. Expect very good (Level 5) answers to provide a clear description of spatial variations in economic growth and developed explanatory comment and to support their answers with specific illustrative detail (possibly including a sketch map) and examples. Average (Level 3) responses will be characterised by secure but generalised content and good (Level 4) responses by good factual knowledge and understanding.

Q.14 'Achieving a balance between economic growth and sustainable development in China is problematic.' Discuss.

(1.6) [25]

Guidance

Candidates:

- i. should show some knowledge and understanding of the different ways in which economic growth in China is compromising sustainable development;
- ii. should show the ability to discuss the extent to which economic growth and sustainable development can both be achieved.

Indicative content

Expect candidates to mention that 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. Environmental concerns are being taken seriously, but bureaucratic problems and some corruption inhibit national policies being put into practice in local communities. Recent progress has been made by Chinese manufacturers to develop solar, wind and clean coal technology. This recent trend contradicts the conventional picture of China's poor environmental image. China's new premier, Li Keqiang, has vowed to tackle pollution and has pledged that his government will 'show even greater resolve', but has failed to provide details. For very good (Level 5) responses, expect a detailed and balanced discussion with well integrated examples. Average (Level 3) responses will be characterised by secure, but generalised, content and good (Level 4) responses by good factual knowledge and understanding.

INDIA

Q.15 Describe and account for changes in India's economy.

(1.2) [25]

Guidance

Candidates:

- i. should show knowledge and understanding of changes in India's economy;
- ii. should show knowledge and understanding of the reasons for these changes.

Indicative content

Expect candidates to identify the changes in manufacturing industries, service and financial industries and in agriculture since the political changes in 1991. Rapid economic growth in India has been due to the expansion of the service sector rather than to the growth of manufacturing. India's large service industry accounts for 57.2% of the country's GDP while the industrial and agricultural sectors contribute 28.6% and 14.6% respectively. Candidates are most likely to argue that India's rural economy is still very important with some developments in agribusiness in some states due to technological developments (Green Revolution) and political reform. Agribusinesses play an increasingly significant role in agricultural exports. Manufacturing change includes the growth of modern steel, pharmaceuticals, textiles, clothing, and a substantial high-tech electronics sector e.g. mobile phones. The services sector includes financial services, software services, accounting services and entertainment industries like Bollywood. The growth of service industries includes call centres, back office jobs, outsourcing from Europe / US and an extensive financial and banking sector which supports the rapidly expanding Indian economy. India has a wide and sophisticated banking network. The sector also has a number of national and state level financial institutions and a well-established stock market. The Indian capital markets are rapidly moving towards a modern market including derivative trading and internet based trading. Reasons for the rapid expansion in the service sector include lower labour costs, a large English speaking workforce, a highly skilled and educated workforce and ICT skills shortages in some developed countries. Technological factors have also played a significant role, particularly the speed and distance over which communications and movement can now take place due to computer, transport and communication technologies. The growth in manufacturing is due largely to the growth in the urban middleclass, educated population who have become consumers themselves, providing a large market for new consumer goods. Expect very good (Level 5) answers to provide a detailed description of economic changes together with developed explanatory comment and specific illustrative detail and examples. Average (Level 3) responses will be characterised by secure, but generalised, content and good (Level 4) responses by good factual knowledge and understanding.

Q.16 'Achieving a balance between economic growth and sustainable development in India is problematic.' Discuss.

(1.6) [25]

Guidance

Candidates:

- i. should show some knowledge and understanding of the different ways in which economic growth in India is compromising sustainable development;
- ii. should show the ability to discuss the extent to which economic growth and sustainable development can both be achieved.

Indicative content

Expect candidates to mention that 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 and 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 and examples to be well integrated in the answer. Average (Level 3) responses will be characterised by secure, but generalised, content and good (Level 4) responses by good factual knowledge and understanding.

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)	25
	35 46%	20 27%	20 27%	75 (100%)

Assessment Objectives Grid for Geography G3B

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 to determine an appropriate mark. If in doubt, please consult your team leader.

Generic Mark Scheme for G3B

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

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	Basic	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	Basic	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.

GCE GEOGRAPHY G3B

SECTION B: RESEARCH

CONTEMPORARY THEMES AND RESEARCH IN GEOGRAPHY

(a) Evaluate the methods that could be used to acquire appropriate information about (context). [10]

As in previous examination series there is no need for candidates to draw parallels with their own study, but this should be credited if it helps to develop the answer. Methods of acquiring information should be appropriate to the topic under investigation. Candidates should demonstrate their knowledge of methods of acquiring information and evaluate their appropriateness to the topic under investigation. Any suitable methods (i.e. to the theme) should be credited.

Expect there to be a range of methods of acquiring information, both primary and secondary, which may be illustrated or supported with examples, e.g. names of websites, maps, questionnaires, environmental surveys and sampling strategy(ies). Where these relate specifically to the investigation credit should be given.

From the WJEC list of command words: **Evaluate**: candidates are expected to give an overall quality or value to the feature/issue being considered. You may state a viewpoint, after consideration of the evidence..... a judgment/opinion is wanted. Although an opinion cannot be marked incorrect, credit is given for the justification of the position taken up..... a balanced answer is best.

Level 3 (8–10 marks)	Good understanding of the methods used to acquire information in the context of the selected research area. Good evaluation that includes some appreciation of strengths and weaknesses of the methods used. Candidates may state a viewpoint or make a judgment of the methods used. 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 understanding of the methods used to acquire information, which may be either , generic in nature, or incomplete or unbalanced in coverage. Some evaluation which may include comments for and against (strengths and weaknesses) of the methods used. Maximum Level 2 if only one method is evaluated
Level 1 (1–3 marks)	Basic description of the methods used to acquire information. There may be just a list of the methods used and there is unlikely to be much, if any, evaluation.

(b) Outline the findings of your investigation into (context) and assess the methods of analysis you used.

[15]

You should state clearly the title of your research enquiry.

The content will depend upon the investigation undertaken, but answers should show knowledge and understanding of the chosen topic. In their answers candidates should demonstrate their ability to communicate the strengths and weaknesses of the methods chosen and relate these to their findings, ideally with some supporting evidence. Candidates could assess both methods of analysis and presentation.

There may be some description of methods of analysis and presenting information, which may be qualitative and/or quantitative and illustrated with diagrams or examples. Examples described **might** include, graphs (bar, line, scatter, pie, bi-polar, logarithmic), photographs, maps, located symbols (maybe proportional), tables and field sketches, Chi-squared, Spearman's Rank, Mann Whitney and Standard Deviation.

There should be some attempt to link the methods of analysis being assessed to the findings of the investigation, with some supporting evidence.

From the WJEC list of command words: **Assess**: This is an evaluative question – weigh up the importance of the subject. This means there are a number of possible explanations/arguments/outcomes. Candidates need to give the main ones and say which they tend to favour.

Level 4	Detailed outline of the findings of their investigation, with good evidence/support.	
(13–15 marks)	Sound, balanced assessment of the methods of analysis used and linked to the findings outlined; the range of the methods of analysis is appropriate.	
Level 3	Good outline the findings of their investigation, with some evidence/support.	
(9–12 marks)	Some assessment of the methods of analysis used with some links to the findings outlined; some outline of the methods of analysis used in their investigation which are either a range of appropriate methods or fewer, in more depth.	
	Answers which provide detailed outline of the methods of analysis used could access this level.	
Level 2	Some outline of findings of their investigation with some evidence/support.	
(5–8 marks)	Some assessment of the suitability of the methods of analysis under consideration; some outline of the methods of analysis used in their investigation.	
	Answers with no reference to the context could reach the top of this level.	
Level 1	Basic findings and/or a basic description of the analytical methods used.	
(1–4 marks)		