General Certificate of Education
June 2010

Geography   GEOG3

Contemporary Geographical Issues

Unit 3

Mark Scheme

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

GEOG3 General Guidance for GCE Geography Assistant Examiners

As required by QCA, the marking scheme for this unit includes an overall assessment of quality of written communication. There are no discrete marks for the assessment of written communication but where options are "Levels" marked, written communication will be assessed as one of the criteria within each level.

Level 1:   Language is basic, descriptions and explanations are over simplified and lack clarity.

Level 2:   Generally accurate use of language; descriptions and explanations can be easily followed, but are not clearly expressed throughout.

Level 3:   Accurate and appropriate use of language; descriptions and explanations are expressed with clarity throughout.

Level 4:   Accurate and mature use of language; descriptions and explanations are expressed coherently and confidently

Marking – the philosophy
Marking should be positive rather than negative.

Mark schemes – layout and style
The mark scheme for each question will have the following format:
a) Notes for answers (nfa) – exemplars of the material that might be offered by candidates
b) Mark scheme containing advice on the awarding of credit and levels indicators.

Point marking and levels marking
a) Questions with a mark range of 1-4 marks will be point marked.
b) Levels will be used for all questions with a tariff of 5 marks and over.
c) Two levels only for questions with a tariff of 5 to 8 marks.
d) Three levels to be used for questions of 9 to 15 marks.
e) Four levels to be used for questions of 40 marks.

Levels Marking – General Criteria
Everyone involved in the levels marking process (examiners, teachers, students) should understand the criteria for moving from one level to the next – the "triggers". The following general criteria are designed to assist all involved in determining into which band the quality of response should be placed. It is anticipated that candidates' performances under the various elements will be broadly inter-related. Further development of these principles will be discussed during Standardisation meetings. In broad terms the levels will operate as follows:

Level 1: attempts the question to some extent (basic)

An answer at this level is likely to:

- display a basic understanding of the topic
- make one or two points without support of appropriate exemplification or application of principle
- give a basic list of characteristics, reasons and attitudes
- provide a basic account of a case study, or provide no case study evidence
- give a response to one command of a question where two (or more) commands are stated e.g. "describe and suggest reasons"
- demonstrate a simplistic style of writing perhaps lacking close relation to the terms of the question and unlikely to communicate complexity of subject matter
- lack organisation, relevance and specialist vocabulary
- demonstrate deficiencies in legibility, spelling, grammar and punctuation which detract from the clarity of meaning.

Level 2: answers the question (well/clearly)

An answer at this level is likely to:

- display a clear understanding of the topic
- make one or two points with support of appropriate exemplification and/or application of principle
- give a number of characteristics, reasons, attitudes
- provide clear use of case studies
- give responses to more than one command e.g. "describe and explain..."
- demonstrate a style of writing which matches the requirements of the question and acknowledges the potential complexity of the subject matter
- demonstrate relevance and coherence with appropriate use of specialist vocabulary
- demonstrate legibility of text, and qualities of spelling, grammar and punctuation which do not detract from the clarity of meaning.

Level 3: answers the question very well (detailed)

An answer at this level is likely to:

- display a detailed understanding of the topic
- make several points with support of appropriate exemplification and/or application of principle
- give a wide range of characteristics, reasons, attitudes
- provide detailed accounts of a range of case studies
- respond well to more than one command
- demonstrate evidence of discussion, evaluation, assessment and synthesis depending on the requirements of the assessment
- demonstrate a sophisticated style of writing incorporating measured and qualified explanation and comment as required by the question and reflecting awareness of the complexity of subject matter and incompleteness/ tentativeness of explanation
- demonstrate a clear sense of purpose so that the responses are seen to closely relate to the requirements of the question with confident use of specialist vocabulary
- demonstrate legibility of text, and qualities of spelling, grammar and punctuation which contribute to complete clarity of meaning.

Level 4: answers the question with depth, flair, creativity and insight
In addition to the requirements of Level 3, an answer at this level is likely to:
- provide strong evidence of thorough, detailed and accurate knowledge and critical understanding of concepts and principles and of specialist vocabulary.
- give explanations, arguments and assessments or evaluations that are direct, logical, perceptive, purposeful, and show both balance and flair.
- demonstrate a high level of insight, and an ability to identify, interpret and synthesise a wide range of material with creativity.
- demonstrate evidence of maturity in understanding the role of values, attitudes and decision-making processes.

Annotation of Scripts
It is most important that Examiners mark clearly, according to the procedures set out below.
- All marking should be done in red (except online marking).
- The right hand margin should be used for marks only.
- The mark for a question must be ringed at the end of the answer.
- The mark for the question must be transferred to the front of the script.
- Where an answer is marked using a levels response scheme, the examiner should annotate the scripts with 'L1', 'L2', 'L3' or 'L4' at the point where that level has been reached in the left hand margin. In addition, examiners may want to indicate strong material by annotating the script as "Good Level… ". Further commentary may also be given at the end of the answer. The consequent mark should then appear in the right hand column.
- Where an answer fails to achieve Level 1, zero marks should be given.

Other mechanics of marking
- All errors and contradictions should be underlined.
- Various codes may be used such as: 'rep' (repeated material), 'va' (vague), 'NAQ' (not answering question), 'seen', etc.
- Use a wavy line to indicate weak dubious material (avoiding crossing out).
- If the rubric is contravened, then all answers should be marked, but with the best answer being counted and the mark transferred to the front of the script. Then cross out the material which has been discounted.
- Unless indicated otherwise, always mark text before marking maps and diagrams. Do not give double credit for the same point in text and diagrams.

Section A
Option: Plate Tectonics and Associated Hazards

01	**Notes for answers**	*(7 marks)*
AO2 - 5 **AO3 - 2**	This photograph was taken in January 2006 following the October 2005 earthquake in Kashmir. There are signs of the original earthquake in the background – in the form of landslides of mud and rock (sandstones). The landslides are extensive, and very clear (whiteness). Large amounts of debris must have fallen into the valley below. There is also evidence of tented communities. An implication has to be that many of the original houses in the settlement have been destroyed or are at risk; or there have been refugees into the settlement. On the other hand, several buildings seem to be upstanding; perhaps this settlement was not as badly damaged as others in the region? There is evidence of some military presence – perhaps to act as rescuers, or to maintain order? Rubble in foreground? **Mark scheme** **Level 1 (1-4 marks) (mid point 3)** Simple listing of features from the photograph such as landslides, tented community, military lorries etc., with no commentary on any aspect. **Level 2 (5-7 marks) (mid point 6)** Commentary on the nature of the evidence as seen (as suggested in the nfa). Some sophistication of description, and/or evidence of geographical thinking.	

02	**Notes for answers**	*(8 marks)*
AO1 - 8	The magnitude of seismic waves and earthquakes is measured on two scales.	
	(a) The **Richter scale** is a logarithmic scale - an event measured at 7 on the scale has amplitude of seismic waves ten times greater than one measured at 6 on the scale. The energy release is proportional to the magnitude, so that for each unit increase in the scale, the energy released increases by approximately 30 times.	
	(b) The **Mercalli scale** measures the intensity of the event and its impact. It is a 12-point scale that runs from Level I (detected by seismometers but felt by very few people - approximately equivalent to 2 on the Richter scale) to Level XII (total destruction with the ground seen to shake - approximately 8.5 on the Richter scale).	
	Seismic records enable earthquake frequency to be observed, but these records only date back to 1848 when an instrument capable of recording seismic waves was first developed.	
	Candidates may provide details of both scales. Detail of the equipment and technology used, such as seismographs, is also relevant. Credit elaboration of how the technology is used or works.	
	Mark scheme	
	Level 1 (1-4 marks) (mid point 3) Simple references to the scales given above, increasing numbers of the scale, but without any precision in their use; or detailed explanation of one system only, including technology.	
	Level 2 (5-8 marks) (mid point 6) Recognition that there is more than one way in which to measure seismicity – by energy levels or by impact or by technology. Some detail is given of more than one system. Also credit commentary on usefulness if given when in this level.	

03	**Notes for answers**	*(10 marks)*
AO2 - 8 **AO3 - 2**	Management may take the form of *prediction, prevention or protection*. Precise detail will depend on the case studies selected. The **prediction** of earthquakes is very difficult. Regions at risk can be identified through plate tectonics, but attempts to predict earthquakes a few hours before the event are unreliable. Such prediction is based upon monitoring groundwater levels, release of radon gas and unusual animal behaviour. Fault lines such as the San Andreas can be monitored and local magnetic fields can be measured. Areas can also be mapped on the basis of geological information and studies of ground stability to produce a hazard zone map that can be acted upon by local and national planners. Trying to **prevent** an earthquake is thought by most people to be impossible. This, however, has not stopped studies into the feasibility of schemes to keep the plates sliding past each other, rather than 'sticking' and then releasing, which is the main cause of earthquakes. Suggestions so far for lubricating this movement have focused on using water and/or oil. **Protection.** Being prepared for an earthquake involves everyone from civil authorities to individuals. Protection can include any of the following: • Hazard-resistant structures: buildings can be designed to be seismic or earthquake-resistant (*a great deal of detail can be given here*) • Education: instructions issued by the authorities explain how to prepare for an earthquake by securing homes, appliances and heavy furniture, and getting together earthquake kits • Fire prevention: 'Smart meters' have been developed which can cut off the gas if an earthquake of sufficient magnitude occurs • Emergency services: use of the emergency services in the event of an earthquake requires careful organisation and planning • Civilians are given first-aid training as trained medical personnel can take some time to arrive • The establishment of computer programs that will identify which areas the emergency services should be sent to first • Land-use planning: the most hazardous areas in the event of an earthquake can be identified and then regulated. Certain types of buildings such as schools and hospitals should be built in areas of low risk • Insurance: people are urged to take out insurance to cover their losses though this can be very expensive for individuals • Aid: most aid to developing countries has been emergency aid in the few days after the event - providing medical services, tents, water purification equipment, and search and rescue equipment. Aid over the longer term, to reconstruct the built environment and redevelop the economy, is much less readily available.	

Mark scheme

Level 1 (1-4 marks (mid point 3)
Simple statements of management which could apply to any earthquake hazard. No specific detail provided.

Level 2 (5-8 marks) (mid point 6)
Specific statements of management strategies which can be clearly attributed to named areas and/or earthquakes access this level. Comparison must be clearly recognisable for 7/8 marks.

Level 3 (9-10 marks) (mid point 9)
A fully developed answer, with good elaboration of the management strategy of two seismic events. A rounded answer with a full comparison of the two events.

Option: Weather and Climate and Associated Hazards

04	Notes for answers	(7 marks)
AO2 - 5 AO3 - 2	The main concentration of heat in Dublin on this winter night was in the north central area of the city (B3), being 5°C warmer than the surrounding countryside. It can be suggested that it is here where there is a higher concentration of buildings giving out heat either from heating systems or anthropogenic heat sources. There is a wedge of warmth to the east around the mouth of the Liffey (C3/D3) – this could be due to the moderating effect of the water. Temperatures fall away rapidly to the north and west where there is a steep gradient of temperature reduction (a cliff). On the other hand, to the south temperatures reduce gradually. This could be due to extensive areas of low density housing which will emit some heat. **Mark scheme** **Level 1 (1-4 marks) (mid point 3)** Simple statements of features from the figure such as areas of high or low temperatures with no commentary on any aspect. Good description only = MAX L1. **Level 2 (5-7 marks) (mid point 6)** Commentary on the nature of the heat island (as suggested in the nfa). Some sophistication of description, and evidence of geographical thinking.	

05	Notes for answers	(8 marks)
AO1 - 8	The surface area of cities is uneven due to the varying height of the buildings. Buildings in general exert a powerful frictional drag on air moving over and around them. This creates turbulence, giving rapid and abrupt changes in both wind direction and speed. Average wind speeds are lower in cities than in the surroundings areas and they are also lower in city centres than in suburbs. High rise buildings may slow down air movement but they also channel air into the 'canyons' between them.	
	Winds are therefore affected by the size and shape of buildings. For a single building, air is displaced upwards and around the sides of the building and is also pushed downwards in the lee of the structure. On the windward side, the air will push against the wall on this side with relatively high pressures. As the air flows around the sides of the building it becomes separated from the walls and roof and sets up suction in these areas. On the windward side the overpressure, which increases with height, causes a descending flow which forms a vortex when it reaches the ground and sweeps around the windward corners. This vortex is considerably increased if there is a small building to windward. In the lee of the building there is a zone of lower pressure, causing vortices behind it.	
	If two separate buildings allow airflow between them, then the movement may be subject to the Venturi effect in which the pressure within the gap causes the wind to pick up speed and reach high velocities.	
	Usually buildings are part of a group and the disturbance to the airflow depends upon the height of the buildings and the spacing between them. If they are widely spaced, each building acts as an isolated block, but if they are closer, the wake of each building interferes with the airflow around the next structure and this produces a very complex pattern of airflow.	
	Mark scheme	
	Level 1 (1-4 marks) (mid point 3) Simple statements of how buildings influence air flows such as acting as windbreaks, creating turbulence and causing a 'canyon' effect.	
	Level 2 (5-8 marks) (mid point 6) Detailed relationships between buildings and air flow, such as the importance of the separation of buildings, and the complexity of flow around a building/buildings.	

06	Notes for answers	*(10 marks)*
AO2 - 8 **AO3 - 2**	There are a number of ways in which governments and other organisations have tried to reduce atmospheric pollution in cities.	
	Clean Air Acts: After the London pea-souper of 1952, the government decided legislation was needed to prevent so much smoke entering the atmosphere. The act of 1956 introduced smoke-free zones into the UK's urban areas and this policy slowly began to clean up the air. The 1956 act was reinforced by later legislation. In the 1990s, for example, very tough regulations were imposed on levels of airborne pollution, particularly on the level of PM10s in the atmosphere. Local councils in the UK are now required to monitor pollution in their areas and establish Air Quality Management Areas where levels are likely to be exceeded. Some have planted more vegetation to capture particulates on leaves.	
	Vehicle control in inner urban areas: a number of cities have looked at ways of controlling pollution by trying to reduce the number of vehicles that come into central urban areas. In Athens, for example, the city declared an area of about 2.5 km² in the centre traffic free. Many British towns and cities have pedestrianised their CBDs. In London, attempts to control vehicle numbers have included introducing a congestion charge which means vehicle owners have to pay if they wish to drive into the centre. The Greater London Low Emission Zone is an extension of this. In Mexico City, the city council passed driving restriction legislation known as the Hoy no Circula (don't drive today). This bans all vehicles from being driven in the city on one weekday per week, the vehicle's registration number determining the day.	
	More public transport: attempts have been made to persuade people to use public transport instead of cars. Such schemes have included Manchester's development of a tram system (Metrolink), the development of bus-only lanes into city centres, the growth of park-and-ride schemes in many British cities and the encouragement of car-sharing schemes.	
	Zoning of industry: industry has been placed downwind in cities if at all possible and planning legislation has forced companies to build higher factory chimneys to emit pollutants above the inversion layer.	
	Vehicle emissions legislation: motor vehicle manufacturers have been made to develop more efficient fuel-burning engines and to introduce catalytic converters which remove some of the polluting gases from exhaust fumes. The switch to lead-free petrol has also reduced pollution.	

Mark scheme

Level 1 (1-4 marks) (mid point 3)
Simple statements of pollution reduction policies which could apply to any area of the world, and to any form of atmospheric pollution. No specific detail provided.

Level 2 (5-8 marks) (mid point 6)
Specific statements of pollution reduction policies which can be clearly attributed to named areas and/or forms of pollution access this level.

Level 3 (9-10 marks) (mid point 9)
A fully developed answer, with good elaboration and discussion of a variety of pollution reduction policies each clearly attributed and being different from each other.

Option: Ecosystems: Change and Challenge

07	**Notes for answers**	*(7 marks)*
AO2 - 5 **AO3 - 2**	The **advantages** of the London Plane are that it is a sturdy, fast growing and attractive tree in both summer and winter; it is very tolerant of pollution particularly that alongside urban roads; it is resistant to disease and indigenous pests; it will grow in very unsuitable ground which does not need a great deal of tending and will even tolerate soil that has been parked upon by cars; and it encourages biodiversity by being suitable for nesting sites and ground foliage. The **disadvantages** are less in number: it sheds a lot of leaves, fruits and bark which need regular clearance; these may also cause some skin irritation and allergies to a few. Overall, it appears that advantageous characteristics outweigh disadvantageous ones. **Mark scheme** **Level 1 (1-4 marks) (mid point 3)** Simple listing of characteristics from the table with no developed commentary on any aspect other than good/bad. **Level 2 (5-7 marks) (mid point 6)** Commentary on the nature of the evidence as seen. Some sophistication of description, and/or evidence of geographical thinking. Credit a summary statement at this level. Must have both advantages and disadvantages to access 7 marks.	

08	**Notes for answers**	*(8 marks)*
AO1 - 8	Changes in urban ecosystems can arise due to either natural succession, or through human induced activities such as the introduction of species. The natural succession on an abandoned industrial site, for example, would occur as follows: • Stage 1: The pioneers (mosses and lichens). • Stage 2: Oxford ragwort. • Stage 3: Tall herbs and shrubs. • Stage 4: Grassland and meadow. • Stage 5: Scrub woodland, including sycamore, laburnum, rowan and hawthorn. Many of the plant and animal species found in urban areas are recently introduced, and there are relatively few indigenous species. Cities are centres for the establishment and spread of foreign species - their vegetation contains a far higher proportion of exotic plants than that of rural areas. Species include: • From North America: Canadian goldenrod, Michaelmas daisy • From Europe: sycamore, laburnum, wormwood, goat's-rue • From China and Japan: buddleia, Japanese knotweed. Such species could have been introduced to the area by escapees from gardens, plants brought in by collectors or amateur gardeners, wind-blown seed, or seed carried by animals and forms of transport. Gardens (private and public), parks, cemeteries, playing fields and school property are all areas where the vegetation is managed. Species are introduced and others are removed or controlled by mowing, weeding, or the use of pesticides and herbicides. Sports fields, for example, reduce the diversity of plant species by maintaining grass pitches. Reasons for the changes in such areas include: • altruistic motives - giving a dull urban landscape more colour and developing green areas to provide amenity space within the urban area • improving the visual outlook will hide eyesores (screening of factories, for example) and might encourage either businesses, customers or residents to move in • schools may produce a diverse environment for study purposes • some groups, such as birdwatchers, may wish for a diverse environment to attract new species • to act as noise and pollution inhibitors, or to reduce soil erosion on embankments. **Mark scheme** **Level 1 (1-4 marks) (mid point 3)** Simple statements of description and/or explanation of change that are loosely applicable to urban areas; or a detailed account of one change. **Level 2 (5-8 marks) (mid point 6)** A detailed account of two changes, with higher marks being awarded for greater depth of response on all aspects of description and explanation.	

09	**Notes for answers**	*(10 marks)*
AO2 - 8 AO3 - 2	Ecological conservation areas are developed for a variety of reasons, some of which are included in 08 above. Other reasons include: • encouraging wildlife back into cities • making cheap use of an otherwise derelict area that would be more expensive to set up as a park • reducing maintenance costs in an area • maintaining a diverse species base and reintroducing locally extinct species. A great variety of formal and informal work is done in such areas including planting of trees and other species, planting of native species, dredging of ponds and other water bodies, and soil improvements. Groups and organisations behind such conservation include local authorities, national government, English Nature (Joint Nature Conservation Council), conservation volunteers, the Groundwork Trust, the National Urban Forestry Unit, the National Trust and English Heritage. One example of a conservation area is the Greenwich Peninsula ecology park. This is sited downstream of the O2 Arena on the River Thames. The park is made up of an inner and outer lake. The outer lake has open access at all times, whereas the inner lake is accessible only through the Gatehouse at certain times. A wide variety of wildlife thrives in the park, including frogs, toads, newts and a huge array of insects. In spring and summer, the park comes alive with brightly coloured dragonflies, damselflies and butterflies over the wildflower meadows. Specially designed bird hides allow people to watch many different species, both local and visiting. As the seasons change, so do the types of bird seen. There is a host of organised activities for the family: from evening bat walks to summer fun days. During term time the park is open for school visits where children can experience nature first hand. **Mark scheme** **Level 1 (1-4 marks) (mid point 3)** Simple statements of ecological conservation areas which could apply to any such area. No specific detail provided, nor any attempt to assess success. **Level 2 (5-8 marks) (mid point 6)** Specific descriptive statements of ecological conservation areas some of which can be clearly attributed to a named example. Assessment is tentative and implicit. **Level 3 (9-10 marks) (mid point 9)** A fully developed answer, with good elaboration and clear depth of detail of the chosen ecological conservation area. Assessment is explicit.	

Section B
Option: World Cities

10	**Notes for answers**	*(7 marks)*
AO2 - 5 **AO3 - 2**	This is a photograph of the Dharavi slum in Mumbai from the National Geographic magazine. It writes of the photo: 'Failed urban renewal attempts stick out above a warren of metal-roofed shacks. Built to provide more modern facilities, the towers became dilapidated after only a few years because of poor maintenance. A current redevelopment plan calls for razing all slum housing in Dharavi and replacing it with more high-rises. But the free housing promised will house only a fraction of those losing their homes.' Candidates are likely to recognise the classic signs of shanty town development, with its high density of population, poor sanitation and other service provision, etc. All of this will be creditworthy at Level 1. Commentary will access Level 2. Improvements given could include self-help schemes, sites and services schemes, total redevelopment. **Mark scheme** **Level 1 (1-4 marks) (mid point 3))** Simple generalised statements of conditions in such areas but without any sense that the photo has been examined closely. No commentary. Generalised statements of improvement. **Level 2 (5-7 marks) (mid point 6)** Detailed description of features that can be identified in the photo, e.g. the continuity of metal roofs, the poor quality high rise flats that appear above them. Commentary on the characteristics shown in the photograph. Statements of improvement that could clearly apply to the area shown.	

11	**Notes for answers**	**(8 marks)**
AO1 - 8		
	Suburbanisation has resulted in the outward growth of urban development that has engulfed surrounding villages and rural areas. During the mid- to late-twentieth century, this was facilitated by the growth of public transport systems and the increased use of the private car. The presence of railway lines and arterial roads has enabled relatively wealthy commuters to live some distance away from their places of work. To a large extent the towns and cities of the UK demonstrate the effects of past suburbanisation. In the 1930s, there were few planning controls and urban growth took place alongside main roads - this was known as ribbon development. By the 1940s this growth, and the subsequent growth between the 'ribbons', became a cause for concern. This led to the creation of **green belts** - areas of open space and low-density land use around existing urban areas where further development was strictly controlled.	
	Since 1950, suburban expansion has increased and has been better planned. During the 1950s and 1960s large-scale construction of council housing took place on the only land available which was the suburban fringe. In the 1970s, there was a move towards home ownership, which led to private housing estates being built, also on the urban fringe. Building in these areas allowed people to have more land for gardens and more public open space, compared with housing areas nearer the town centre.	
	The edge of town, where there is more land available for car parking and expansion, also became the favoured location for new offices, factories and shopping outlets. In a number of cases, the 'strict control' of the green belts was ignored (or at best modified) in the light of changing circumstances.	
	Suburbanised areas have experienced much change in recent years. Local shopping centres have been constructed, along with a large number of primary schools and a smaller number of secondary schools. Suburbanised areas also demonstrate other key elements of the rural–urban fringe, such as residual woodlands and parks, cemeteries, golf courses and playing fields. Many are now well-established housing areas, highly sought after in the property market.	
	Suburbanisation in developing countries is also valid.	
	Mark scheme	
	Level 1 (1-4 marks) (mid point 3) Simple generalised statements of process and impact with no depth or detail, and not attributed to any named area. If only process or impact, MAX L1.	
	Level 2 (5-8 marks) (mid point 6) More sophisticated and/or specific statements of process and impact which may be attributed to a named area, or demonstrate greater depth of understanding and/or knowledge.	

12	**Notes for answers**	*(10 marks)*
AO2 - 8 **AO3 - 2**	There are a multitude of regeneration schemes that candidates can refer to. Accept any form of regeneration from gentrification to property-led schemes to partnerships. Some may involve a single area within a city; others may cover a whole city. For example**, Sheffield**: several organisations have been created in the past 20 years with the purpose of regenerating the city of Sheffield. The Sheffield Development Corporation was established in 1988 in order to regenerate Lower Don Valley area of Sheffield, which had been the location of much of the city's traditional industry. In its eleven year existence it replaced much of the derelict land with new business ventures, the most famous project being the creation of Meadowhall shopping centre. More recently a new city economic development company, Creative Sheffield, has been established and in April 2007, Sheffield First for Investment, Sheffield One and the Cultural Industries Quarter Agency were all integrated into this one organisation. Some of the projects proposed or currently under construction in Sheffield are the improvement of Sheffield Midland Station, the New Retail Quarter, Victoria Quays and Riverside Exchange, and the redevelopment of The Moor shopping district. As well as these large-scale projects, there are lots of other public works buildings, luxury accommodation and office space is being built in the city. The city centre population is expected to increase from 5000 in 2005, to 15 000 by 2015. £250 million has also been invested in the city during the first half of 2005. **Mark scheme** **Level 1 (1-4 marks) (mid point 3)** Simple statements of urban regeneration schemes/policies which could apply to any area. No specific detail provided, nor any attempt to assess success. **Level 2 (5-8 marks) (mid point 6)** Specific descriptive statements of an urban regeneration scheme/policy some of which can be clearly attributed to a named example. Assessment is tentative and implicit. **Level 3 (9-10 marks) (mid point 9)** A fully developed answer, with good elaboration and clear detail of the chosen urban regeneration scheme/policy. Assessment is explicit.	

Option: Development and Globalisation

13	**Notes for answers**	*(7 marks)*
AO2 - 5 **AO3 - 2**	Figure (a): all countries will have an increase in their GDP growth but China has the fastest; it will become the most powerful economy in 2040; India will overtake Japan in 2030	
	Figure (b): significant growth in India's service industry in the last 15 years, now over 50% of India's GDP is from services	
	Figure (c): rapid growth in employment in IT related services in India – threefold increase in just five years, to almost one million. Growth in all three elements shown; the most rapid growth in call/contact centre activities.	
	Mark scheme	
	Level 1 (1-4 marks) (mid point 3) Simple statements of ups and downs, generally no qualification. No commentary.	
	Level 2 (5-7 marks) (mid point 6) Qualitative statements which may include links between/within the data access this level. Candidate demonstrates critical understanding of the data.	

14	**Notes for answers**	*(8 marks)*
AO1 - 8	**China** is the new 'workshop' of the world. Its growth is due to massive investment in manufacturing based industry, and global trade expansion. In 2002 it became the world's largest recipient of FDI, attracting nearly $53 billion. China manufactures 50% of the world's computers, 60% of the world's bicycles, and 55% of the world's shoes. It is a huge consumer of resources such as oil, steel, copper and cement. It has attracted investment from across the globe – the USA, UK and Japan. Car companies are particularly strong – GM, Ford, VW, Honda. It makes use of low production costs (e.g. labour costs are 0.1 of Japanese equivalents) and it has invested heavily in high technology, particularly in high technology nuclei. Government policies have encouraged investment especially to coastal areas (Special Economic Zones), and they have also ensured that infrastructure is in place, e.g. transport networks. Due to rising personal incomes, production of consumer goods is also on the increase for the huge domestic market. **India's** software and ICT services have been in the forefront of economic growth. The country has a large number of highly qualified professionals whose skills are in demand worldwide, particularly in the English-speaking world, and the ICT sector has benefited from the filtering-down of business from Europe and North America. Companies in those areas, which once outsourced their ICT requirements to local firms, have increasingly used Indian companies. The country has also gained from being able to offer a wide range of office skills that developed world companies are only too willing to outsource to lower wage economies such as India. Some journalists have called India in this respect the "back office of the world". India is employing increasing numbers in call-centre operations, western companies saving 40-50% of their costs by switching to the country. Amongst companies operating in this way are British Airways and American Express. Other aspects of the service sector that have grown in recent years include the media, advertising, personal financial services, entertainment and tourism – all linked to rising levels of personal income. **Mark scheme** **Level 1 (1-4 marks) (mid point 3)** Generalised statements of reasons which are basic, simplistic or lacking in sense of place for the chosen country. **Level 2 (5-8 marks) (mid point 6)** Detailed, specific and/or sophisticated reasons that clearly apply to the country chosen. As more such comments are made, the answer moves up the level.	

15	**Notes for answers**	*(10 marks)*
AO2 - 8 **AO3 - 2**	Candidates could refer to the impact of India and China, and to the Asian Tigers, and to more recent NICs such as Brazil, Russia and the Gulf States. NICs are the countries which have seen the most rapid economic growth in recent years. Originally, they attracted manufacturing industry due to their low labour costs, expanding domestic markets, available raw materials, reduced import and export tariffs, and weaker planning legislation. They began to dominate manufacturing in electrical goods, textiles and clothing, shipbuilding, and increasingly have moved into car assembly. Many of the industries were of a low skill basis, with low technology but high labour input. In more recent years, the NICs have developed into countries of origin of TNCs, and have invested in both developed countries and in other developing countries. Examples of such companies include the Korean firms Samsung and Daewoo. This is due to increased profits from inward investment by TNCs from developed countries over the last 30 years. To remain profitable they have been forced to invest in areas of cheaper labour costs than themselves (Malaysia produces 10% of world's TVs), to gain near access to protected markets (e.g. Daewoo assembling cars in Romania), and to access virgin markets (S. America). Candidates may also refer to the economic and financial problems that have occurred in recent years in all parts of the world. **Mark scheme** **Level 1 (1-4 marks) (mid point 3)** Simple statements of impact, which are generalised and non-specific to the identified areas of the world e.g. they create jobs, they make cars, electrical goods, they have undercut western countries, etc. **Level 2 (5-8 marks) (mid point 6)** Detailed statements of impact with some recognition of the importance of the role of one NIC, e.g. Taiwan, or China. The answer is detailed and makes sophisticated comments on impact. **Level 3 (9-10 marks) (mid point 9)** A fully developed answer, with good elaboration and clear depth of understanding. Recognition of the complexity of impact. Recognition of the changing importance of NICs over time.	

Option: Contemporary Conflicts and Challenges

16	**Notes for answers**	*(7 marks)*
AO2 - 5 **AO3 - 2**	Planning processes attempt to provide a means by which local authority planners: • listen to the local community (more democratic) – 'public consultation' • listen to the organisation responsible for a proposal – 'considers application' • have overall development control – 'Council officer/group of councillors decides'. Any refusal to grant planning permission by a local authority committee may lead to an appeal ('lodge an appeal'), possibly to a higher body, e.g. DEFRA. Planning processes are costly, in terms of both time and money, for local authorities. Planning committees may: • require or negotiate modifications to be made – 'amendments required?' • request additional provision of facilities (such as better road access) which the authority would have to provide if the development went ahead. Planning committees need to weigh up ('decision notice issued, permission granted/refused'): • the gains from the proposal against its negative aspects • the conflicts between differing groups within a local community • the wider benefits of a scheme versus the local opposition. **Mark scheme** **Level 1 (1-4 marks) (mid point 3)** Simple processing of material from the Figure with no commentary as suggested above. **Level 2 (5-7 marks) (mid point 6)** Awarded to comments that go BEYOND the statements in the Figure, i.e. there is some commentary on what lies behind the statements in the diagram, or some attempt to summarise the main features.	

17	Notes for answers	*(8 marks)*
AO1 - 8	**Conflict:** is a state of discord or disagreement caused by the actual or perceived opposition of needs, values and interests between people. It is often the result of opposing views over the ways in which a resource might be developed, or used. The result is stress or tension and negative feelings between disputants. A conflict can range from a disagreement, or clash, which may consist of harsh words, or may involve the use of force, armed conflict, or war.	
	Identity: Identity is a sense of belonging to a group/area where there is the same generic character, or a sameness of distinguishing character or personality. The identity may be determined by, or apparent in, ethnicity, language and religion. People can be very protective of their identity and seek to maintain it at all costs. Identity can be evident at a number of scales: nationalism, regionalism and localism.	
	Ethnicity: Ethnicity refers to the grouping of people according to their ethnic origins or characteristics. Recently the term has broadened in meaning to refer to groups of people classed according to one or more of common racial, national, tribal, religious, linguistic, or cultural origins or backgrounds.	
	Culture: Culture refers to the customary beliefs, social norms and traits of a racial, religious, or social group and to the set of shared attitudes, values and practices that characterise that group. Many of the origins of these groups are historical, and often lost in time. Hence, as with identity, it is something of which groups of people are inherently proud, and seek to protect.	
	Resources: Resources can refer to items such as water, land, minerals or to territory. Conflict can occur where there is dispute as to who does have or should have authority over those resources – for example, areas where there are low levels of population (deserts) or where borders depend on natural phenomena (rivers, estuaries and mountains).	
	Ideology: Ideology refers to a systematic body of concepts regarding human life or culture. It can result in a set of integrated assertions, theories and aims that together constitute a socio-political programme. Some ideologies can be extreme and at odds with those elsewhere in the world and their supporters may seek to impress their views on others by force. The Western views of democracy, and the alternative views of the Taliban in Afghanistan, could both be described as ideologies.	
	Mark scheme	
	Level 1 (1-4 marks) (mid point 3) Simplistic statements that are generalised and lacking in depth of understanding. There is limited attempt to introduce geographical examples of where different forms of, and reasons for, conflict exist.	
	Level 2 (5-8 marks) (mid point 6) More sophisticated comments on the nature/origins of conflict. There is a clear attempt to support the argument with references to locations and place. More sophisticated comments on the nature/origins of conflict.	

18	Notes for answers	(10 marks)
AO2 - 8 AO3 - 2	**The Gaza Strip:** is one of the Occupied Territories to the south-west of Israel. It occupies 140 square miles (363 sq km) northeast of the Sinai Peninsula with an official population of over 1 million people, though it is thought this is much larger. *Economic impacts of the conflict:* • The area's chief economic problem is the extreme poverty of the large number of Palestinian Arab refugees living there • It is one of the most crowded areas of the world, where unemployment is high, people are poor and the economy is crippled by an international boycott and Israel withholding desperately-needed Palestinian tax-revenues • Foreign powers, Israel and Egypt, control all of Gaza's borders - opening and closing them at will • Despite repeatedly announced ceasefires between differing factions, street battles in Gaza are commonplace, preventing people going about their lives and crippling investment in the area • In January 2008, militants blasted a hole in the Egyptian border near the town of Rafah in defiance of the blockade surrounding Gaza. Thousands of Palestinians streamed across the border into Egypt to stock up with much needed food and fuel. The Egyptian side of the border became a huge open-air market • The events of December 08/Jan 09 and subsequently may be described in detail, N.B. **economic** impacts only. **Mark scheme** **Level 1 (1-4 marks) (mid point 3)** Simple statements of impact, which are generalised and non-specific to the identified conflict e.g. jobs are affected, the area is poor. **Level 2 (5-8 marks) (mid point 6)** Detailed statements of impact with a clear sense of place being generated. The answer is detailed and makes sophisticated comments on economic impact. **Level 3 (9-10 marks) (mid point 9)** A fully developed answer, with good elaboration and clear and appropriate detail. Recognition of the complexity of impact. Recognition of the changing impact over time.	

Section C: Mark scheme for the essay questions

Assessment Criteria	LEVEL 1 (1-10) Mid point 6	LEVEL 2 (11-20) Mid point 16	LEVEL 3 (21-30) Mid point 26	LEVEL 4 (31-40) Mid point 36
Knowledge	Basic grasp of concepts and ideas; points lack development or depth.	The answer is relevant and accurate. Reasonable knowledge. Imbalanced theories.	Sound and frequent evidence of thorough, detailed and accurate knowledge.	Strong evidence of thorough, detailed and accurate knowledge.
Understanding	Incomplete, basic.	Reasonable critical understanding of concepts and principles with some use of specialist vocabulary.	Sound and frequent evidence of critical understanding of concepts and principles and of specialist vocabulary.	Strong evidence of critical understanding of concepts and principles and of specialist vocabulary.
Use of Examples/ Case Studies **Maps/Diagrams**	Superficial. None.	Examples show imbalances. Ineffective.	Examples are developed and balanced. Effective.	Examples are well developed and integrated. Fully integrated.
Evidence of Synopticity **Connections Between Different Aspects of the Subject** **'Thinking Like A Geographer'**	No evidence.	Limited. Some ability to identify, interpret and synthesise some of the material. Limited ability to understand the roles of values, attitudes and decision-making processes.	Strong. Some ability to identify, interpret and synthesise a range of material. Some ability to understand the roles of values, attitudes and decision-making processes.	Full. There is a high level of insight and an ability to identify, interpret and synthesise a wide range of material with creativity. Evidence of maturity in understanding the role of values, attitudes and decision-making processes.
Quality of Argument	Language is basic; arguments are partial, over simplified and lacking clarity.	Arguments are not fully developed nor expressed clearly, and the organisation of ideas show imbalances.	Explanations, arguments and assessments or evaluations are accurate, direct, logical, purposeful, expressed with clarity and generally balanced.	Explanations, arguments and assessments or evaluations are direct, logical, perceptive, mature, purposeful, and are expressed coherently and confidently, and show both balance and flair.

The above will be put into practice following best-fit guidance discussed at the standardisation meeting. Once you have decided the level, the starting point mark is the mid-point of that range: 6, 16, 26, 36. Then fine-tune within the mark range taking into consideration the scripts used at the standardisation meeting.

Option: Plate Tectonics and Associated Hazards

| 19

AO1 - 14
AO2 - 16
AO3 - 10 | **Notes for answers**

Appropriate **content** for a response to this question might include:

• the concept of a hazard
• an understanding of the two volcanic and two seismic events studied as hazards and the extent to which they impact upon human economies and societies
• areas at risk compared to the income/economic development of the people living there
• variations in the capacity to adapt to manage events and impacts
• different impacts on different groups within the same population such as the vulnerability of informal settlements
• case study material/exemplars.

Synopticity emerges with some of the following:

• a critical understanding of the processes that produce volcanic and earthquake hazard events and the context in which they are produced
• understanding the context of varying timescales and spatial variations
• a critical understanding of the impact of volcanic and earthquake events
• an understanding of the vulnerability of different populations to these hazards
• a critical understanding of the vulnerability of different regions, particularly an understanding of the differences between richer and poorer areas and the contrast between urban and rural environments
• understanding the capacity and willingness of people to deal with these hazards.

The question requires a discussion and the response should come to a view. Any conclusion can be credited as long as it is measured and reasonable, and related to the content of the answer. | |

Option: Weather and Climate and Associated Hazards

20	**Notes for answers**	
AO1 - 14 **AO2 - 16** **AO3 - 10**	Appropriate **content** for a response to this question should include: • an outline of the nature of at least one storm event affecting the British Isles; when it has occurred and where • detail of the impact of the events • detail of the responses to the events. **Synopticity** emerges with the following: • evidence in the breadth/depth of case-study material • detailed critical understanding of the impact of at least one such storm event • detailed critical understanding of at least one response • recognition that the responses could be either predictive, preventative or protective • awareness of the interrelationships between location, impact and response. Certain responses are better in some areas than others depending on the nature of the impact. This question requires a discursive approach and the response should come to a view. Any conclusion is creditable as long as it is reasonable and related to the preceding content and argument.	

Option: Ecosystems: Change and Challenge

21	**Notes for answers**	
AO1 - 14 **AO2 - 16** **AO3 - 10**	Appropriate **content** for a response to this answer might include: • the factors causing succession towards climatic climax of a range of plant communities found in the British Isles, including at least one of lithosere, psammosere, hydrosere or halosere • the characteristics of the climatic climax community, the temperate deciduous woodland biome, and the extent to which this has been modified. There might be some understanding of regional differences in the biome, e.g. the types of location where ash is the dominant species rather than oak • the human factors affecting plant successions: secondary succession and plagioclimax • changes to ecosystems resulting from urbanisation, colonisation of wasteland; the development of distinctive ecologies along routeways and in the urban-rural fringe • the impact of conservation in a variety of settings: urban and rural, and natural environments such as sand dunes. **Synopticity** emerges with the following: • an understanding of both physical and human factors in relation to changes in plant communities over time, either short or long term • awareness of the inter-relationships between physical and human factors • use of detailed case study support (breadth/depth) from contrasting ecosystems, man-made and natural • evaluative comments relating to the relative importance of physical and human factors over the short and long term. The question requires a discursive approach and the response should come to a view regarding relative importance of the two factors. Any conclusion is creditable as long as it is reasonable and related to the material under discussion.	

Option: World Cities

22	**Notes for answers**	
AO1 - 14 **AO2 - 16** **AO3 - 10**	Appropriate **content** for a response to this question might include: • a description of the chosen urban issue and how it impacts on identified areas affected • definition of the term 'sustainability' • detail of the solutions/management strategies adopted by identified areas • a comparison between contrasting cities in countries along the development continuum. **Synopticity** is therefore achieved by: • evidence in the breadth/depth of case-study material • detailed critical understanding of the issue identified • detailed critical understanding of the management of the issue identified • a recognition of the importance of values and attitudes, and of the role of decision makers • evaluative comments as to whether sustainability can be achieved. The question requires a discursive approach and the response should come to a view. Any conclusion can be credited as long as it is reasonable and related to the preceding content and argument.	

Option: Development and Globalisation

23	**Notes for answers**	
AO1 - 14 **AO2 - 16** **AO3 - 10**	Appropriate **content** for a response to this question should include: • characteristics of the countries at very low levels of economic development (least developed countries) • detail of the issues facing these countries • elaboration of the ways in which least developed countries can be assisted by others, e.g. aid or trade. **Synopticity** is therefore achieved by: • evidence in the breadth/depth of case-study material • detailed critical understanding of characteristics • detailed critical understanding of issues faced • a recognition that assistance can take a variety of forms (e.g. unilateral or multilateral; aid or trade) • awareness of the complexity of this issue, and of the importance of the role of decision makers, at a variety of scales. The question requires an evaluative approach and the response should cover all elements and the student is required to come to a view. Any conclusion can be credited as long as it is measured and reasonable, and related to the preceding content and argument.	

Option: Contemporary Conflicts and Challenges

24	**Notes for answers**	
AO1 - 14 **AO2 - 16** **AO3 - 10**	Appropriate **content** for a response to this question should include: • discussion of the reasons causing separatist pressures around the world • discussion of the consequences of separatist pressures • recognition and assessment of the variety of reasons/ consequences in different parts of the world. **Synopticity** is therefore achieved by: • understanding the context and importance of varying timescales and locations • evidence in the breadth/depth of case-study material • detailed critical understanding of both the causes and consequences of separatism and their interconnections • analysis of both causes and consequences and a recognition that they may vary around the world and over time. This question requires an analytical approach. The answer should be broken down into its constituent parts, with an in-depth account given of both elements. Any conclusion can be credited as long as it is reasonable and related to the preceding content and argument.	

Option: Contemporary Conflicts and Challenges