



GCE MARKING SCHEME

**GEOGRAPHY
AS/Advanced**

SUMMER 2012

INTRODUCTION

The marking schemes which follow were those used by WJEC for the Summer 2012 examination in GCE GEOGRAPHY. They were finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conferences were held shortly after the papers were taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conferences was to ensure that the marking schemes were interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conferences, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about these marking schemes.

Assessment Objectives Grid for Geography - G1

Summer 2012

	Knowledge and Understanding	Application	Skills	Total	Key Question
Question 1					
(a)	0	2	3	5	1.3
(b)	8	2		10	1.3
(c)	7	3		10	1.1 & 1.4
	15	7	3	25	
Question 2					
(a)	0	2	3	5	2.2
(b)	8	2		10	2.2
(c)	7	3		10	2.3
	15	7	3	25	
Question 3					
(a)	1	1	5	7	2.5
(b)	2	1	5	8	
(c)	3	2	5	10	
	6	4	15	25	
	36 (48%)	18 (24%)	21 (28%)		

Using the mark bands

The aim is to find the descriptor that conveys most accurately the level attained by the candidate, using the best-fit model. A best-fit approach means that marks should be awarded for a response that most fairly matches different aspects of the descriptor.

GEOGRAPHY G1

CHANGING PHYSICAL ENVIRONMENTS

- Q.1 (a) Describe the changes in greenhouse gas emissions shown in *Figure 1*. [5]

The resource shows change and credit should only be given to those that identify this. The resource identifies that the G5 countries have the fastest growing greenhouse gas emissions. The G8 nations can be divided into two sections - those that are increasing their emissions (Canada, USA, Japan and Italy) and those that are decreasing their emissions (France, Britain, Germany and Russia). Accept general comments like these but also accept relative comments such as China has the largest increase of the G5 or France has the smallest decrease. Reference to quantification from the resource can also be given credit as developmental marks. Award one mark for a general comment with extra mark for use of **data** from the resource. To gain full marks reference must be made to both sections (G5 and G8 nations); maximum of 4 marks if the focus is only on one group i.e. G5 or G8.

- (b) Outline how human activities have caused changes to greenhouse gas emissions. [10]

The question involves two elements – human activities and how these caused changes to greenhouse gas emissions. Candidates may approach this from one or two directions. Some may look at how human activity has caused an increase in the production of CO₂, methane, N₂O, water vapour and ozone. The causes of this may be related to combustion of fuels (transportation, power generation etc), burning of forests during deforestation, changing farming in relation to population change (increased use of fertilizer, higher stocking ratios, increase in paddy rice production) and CFCs. Note that the question is looking at changing production of gases and **not** the enhanced greenhouse effect.

Other candidates may examine the decrease of greenhouse gas production in some countries in response to management strategies that have been put in place by governments, pressure groups and individuals. This may refer to changes in transport, household consumption of fuel, efficiency, education of the public, campaigns, treaties etc. This approach will need to outline how the strategy has led to change in the production of greenhouse gases.

Candidates may combine both increases and decreases in CO₂ and markers will have to trade depth against breadth.

Some may examine the question through an examination of a region or country and this structure to the answer should be available for full credit.

Level 3 8-10 marks	Good knowledge and understanding of how human activity can increase and/or decrease the production of greenhouse gases. Good use of examples.
Level 2 4-7 marks	Some knowledge and understanding of how human activity can increase and/or decrease the production of greenhouse gases. Examples are evident.
Level 1 0-3 marks	Basic knowledge how human activity can increase and/or decrease the production of greenhouse gases. Little use of examples.

(c) Outline the relationship between climate and one or more biomes. [10]

The question involves two elements – knowledge and understanding of climate and its relationship with biomes. Answers should display knowledge of both climate and characteristics of the biome or biomes selected. To ‘outline’ - candidates are required to give a brief summary of the main characteristics - which will involve making explicit the links between climate and biome(s).

When considering the climate reference could be made to the temperature, precipitation, humidity, wind and sunshine hours – other aspects may be discussed where appropriate. In addition there may be comment associated with seasonal or diurnal variations. The content of answer will depend upon the biome selected. Consideration of the biome may examine the flora, fauna and soils of the selected example. Do not expect exhaustive detail in this section.

Some candidates may choose to outline the dynamic link between climate and biomes. This approach may review how changes in climate may be linked to changes in biomes. Responses could examine how changes to global temperatures and rainfall patterns have led to changing distributions of climatic belts or distributions of species.

An alternative approach may address changes in one or more biomes and the impact on climate. For example, answers may comment on changes in the savannah climate brought about by changes in agriculture practices leading to desertification.

To get into Level 3 responses must make it clear how climate and the other elements of the biome are inter-related. Some may address this in a diagrammatic format.

Answers may take a broad approach and examine the question from a global point of view or may take one biome and develop its character and relationships in more detail. Examiners should trade breadth against depth when marking the responses.

Level 3 8-10 marks	Good knowledge and understanding of climate and characteristics of one or more biome. Links between climate and biome(s) are explicit. Good use of examples.
Level 2 4-7 marks	Some knowledge and understanding of climate and characteristics of one or more biome. Some links made between climate and biome(s) or detailed knowledge of climate/biome without analysis of linkage. Examples are evident.
Level 1 0-3 marks	Basic knowledge and understanding of climate and characteristics of one or more biome. Little use of examples.

- Q.2 (a) Describe the variations in shaking experienced by people in the area shown in *Figure 2*. [5]**

The resource shows several elements of vulnerability to the earthquake. There is a broad classification of the strength of ground shaking in range of severe/violent to moderate. The pattern shown shows the strongest shaking in the centre with a decrease to the suburbs of the city. The diagram also shows estimated population who were affected – greatest in the centre with a decrease to the suburbs – with a scale to show the population of each ‘strength of shaking’ zone. Comment on these aspects should be awarded credit at 1 mark for each point. One mark reserved for distance from the city centre or shape of the zones or size of the zones or the degree of shaking (e.g. worst / most affected).

- (b) Outline the local and regional impacts of *one or more* tectonic events. [10]**

The question involves two elements – local and regional impacts. Answers should display an awareness of the differences in scale required in the question. Examiners should be flexible in the interpretation of local and regional. Answers will probably look at the local element in the form of impacts that are found in the area surrounding the epicentre of an earthquake or the area adjacent to the volcanic eruption. These impacts can be social, economic, demographic, physical. Regional impacts examine those that are wider in extent. For instance the economic impacts can have a broader scale – Kobe had an impact in the Eastern Asian region. The eruption of Eyjafjallajökull had a social and economic impact at a European scale. The 2011 earthquake in northeast Japan may also be a common example. Candidates may also refer to the earthquake in Christchurch from Question 2(a). Be prepared to look at impacts from the view of the aid that is generated in response to hazard – aid came from the USA and other Caribbean countries as a response to the Haitian earthquake.

Accept answers that approach the question through an examination of a single case study as well as those that choose to refer to a number of examples to illustrate each element of the question.

Candidates that give a detailed review of the impacts without covering the required scales should be confined to Level 2.

Level 3 8-10 marks	Good knowledge and understanding of impacts at both scales. Good use of examples.
Level 2 4-7 marks	Either - some knowledge and understanding of impacts at both scales. Or - detailed knowledge of impacts at one scale. Examples are evident.
Level 1 0-3 marks	Basic knowledge of impacts at both/either scales. Little use of examples.

(c) Discuss the effectiveness of management strategies in relation to one tectonic hazard. [10]

The question involves two elements – the strategies themselves and the effectiveness of these strategies. There will be a great variety of strategies used depending on the hazard selected and the examples that have been studied. Credit fully strategies that address prediction, prevention, preparation, adaptation and land-use planning. The question is looking for the effectiveness of the management strategies but expect there to be an element of the answer that describes them and how they operate. The management may refer to how the strategy allows people to avoid the hazard, to absorb the impacts of the hazard or to alleviate the impacts of the hazard after it has occurred.

Popular strategies that may be used are:

- earthquakes: building-engineering, earthquake preparedness, household-seismic safety, seismic retrofit, education for citizens, emergency-service training, evacuation for tsunamis, land-use plans, aid and earthquake prediction
- volcanoes: early warning systems, evacuation, emergency plans, education for citizens, emergency-service training, building engineering, land-use plans and aid.

To reach Level 3 there must be attention paid to the effectiveness of the strategies used. This may come as comment on the ability to save lives, protect buildings and infrastructure, provide compensation for damage, limit economic loss etc. There may also be comment that compares the relative success of strategies and this is equally acceptable.

Candidates may approach the question **either** from the view of an individual event, such as L'Aquila earthquake, the eruption of Mt Etna etc. **or** they may review earthquakes or volcanoes per se; either approach is acceptable.

<p>Level 3 8-10 marks</p>	<p>Good knowledge and understanding of strategies and explanation of how they are used to manage the event. Developed discussion of the effectiveness of the selected strategies. Good use of examples.</p>
<p>Level 2 4-7 marks</p>	<p>Some knowledge and understanding of strategies and explanation of how they are used to manage the event. Some discussion of the effectiveness of the selected strategies. Maximum Level 2 for detailed knowledge of the strategies only. Some use of examples.</p>
<p>Level 1 0-3 marks</p>	<p>Basic knowledge of strategies and explanation of how they are used to manage the event. Little use of examples.</p>

- Q.3 (a) Use *Figure 3* to compare the impacts of the 2007 and 2010 floods in North Korea. [7]**

Responses could take a number of approaches to address the question. Some candidates may look at each category of impact and make a comparison of the level of impact. These candidates may comment on the area impacted by the floods, the impact on infrastructure, residences and public amenities. Others may review the floods separately. Both approaches are equally acceptable and better candidates may conclude that the 2010 floods are less severe than the 2007 event. Candidates should use the data from the resource to back up their comparisons.

Those that review each flood in detail without comparison should be limited to Level 2.

Level 3 6-7 marks	Good description of the impacts with reference to data from the table. Comments have clear comparative focus and a recognition that the 2007 floods are more severe than the 2010 floods.
Level 2 3-5 marks	Either – some description of the impacts with some reference to data from the table and some comparative comments. Or – good description of the impacts with reference to data from the table but lacks comparative analysis.
Level 1 0-2 marks	Basic description of the impacts. Limited reference to data from the table.

- (b) Outline *two* methods of data collection that could be used to investigate the impacts of flooding. [8]**

This question has two elements – a description of methods and their application to the impacts of flooding. Candidates may approach this in a number of ways. Some may see methods of collection as sampling and comment on sampling techniques such as random, systematic and stratified. They could also refer to transects, belt sampling and areal samples as methods of data collection. Another approach may be to examine how the data is going to be collected with candidates referring to questionnaires, land-use surveys, newspaper articles, examination of reports, official statistics. References to internet searches must make clear its purpose and that the site is appropriate e.g. Environmental Agency.

Level 3 6-8 marks	Good knowledge and understanding of two methods. Good link to how methods could be used to investigate impacts of flooding.
Level 2 3-5 marks	Some knowledge and understanding of two methods. Limited application to flooding. May lack balance – good knowledge and understanding of one method.
Level 1 0-2 marks	Basic knowledge and understanding of methods.

- (c) **Outline the main conclusions of an investigation into a changing physical environment that you have completed.**

You should state clearly the question that you have investigated [10]

The content of the answer will vary greatly as individual centres will engage in a wide variety of investigation but the content should have a link to the substance of the specification.

The question is looking for the main conclusions and the better answers will refer the outcomes of the investigation in relation to the original question, issue or hypothesis set by the candidate or centre. These responses may comment on patterns that were identified, processes that were proved, relationships that were recognised or characteristics that were distinguished. Other valid conclusions should be credited.

Level 3 8-10 marks	Developed description of conclusions.
Level 2 4-7 marks	Some description of conclusions.
Level 1 0-3 marks	Basic description of outcomes.

Geography - G2

	Knowledge and Understanding	Application	Skills	Total	Key Question
Question 1					
(a)		2	3	5	1.3
(b)	8	2		10	1.3
(c)	7	3		10	1.6
	15	7	3	25	
Question 2					
(a)		2	3	5	2.1
(b)	8	2		10	2.6
(c)	7	3		10	2.2
	15	7	3	25	
Question 3					
(a)			7	7	2.4
(b)	4	4		8	
(c)	2		8	10	
	6	4	15	25	
	36	18	21		
	(48%)	(24%)	(28%)		

Using the mark bands

The aim is to find the descriptor that conveys most accurately the level attained by the candidate, using the best-fit model. A best-fit approach means that marks should be awarded for a response that most fairly matches different aspects of the descriptor.

GEOGRAPHY G2

CHANGING HUMAN ENVIRONMENTS

- Q.1 (a) Describe the variations in remittances received by the countries shown in *Figure 1*. [5]**

Some suggested responses are given below but credit other, equally valid alternatives. Responses must relate to remittance values.

- Southern Africa has the highest and lowest remittance contributions to GDP. Lesotho, surrounded by South Africa, has remittances which contribute the most to its GDP at 22.5% in 2005. The smallest GDP contribution in Africa is South Africa at only 0.2% of GDP.
- West Africa is strongly represented in remittances with three countries, including Senegal, with the second highest remittances representing 7.6% of GDP.
- Four of the top 10 recipient countries are grouped together and located in central East Africa: Uganda, Sudan, Kenya and Ethiopia. GDP remittance values range from only 1.2% (Ethiopia) to 5.5% (Uganda).

Award one mark for each statement of variation and further marks for location and figures; award a maximum of 3 marks for direct lifting.

- (b) Outline *two* impacts of migration into a country or region. [10]**

The question looks for two impacts and can be either two impacts of migration into a country or region or two case studies. Candidates may interpret the impacts as being on the source **or** receiving country/region. Some may focus more on one than the other which is acceptable. Note the impacts of migration are varied and will often be determined by the type of migration. These types are noted below.

Voluntary - Retirement to a more pleasant climate (UK to south Spain); to find employment (north Wales to Liverpool); to avoid taxation (UK to Monaco).

Forced - Refugees and asylum seekers: reasons include famine/war (Afghanistan, Ethiopia and Sudan); environmental (Soufriere Hills volcano, Montserrat); slum clearance in UK inner cities.

Migrations can be permanent (UK to Australia) or temporary (second homes). Circulation, i.e. movement on a daily basis, (commuting, shopping) is acceptable. Migrations can be internal (from the north east USA to the "sunshine" southern states) or external (Eastern Europeans to Western Europe).

Responses may include the following suggested impacts but credit valid alternatives.

Environmental

- Land degradation in refugee areas of the Sahel.
- Pollution in informal settlements.

Demographic

- Total **numbers** of people; these might either increase or decrease and which may lead to over- or under-population.
- The **gender** ratio: where a migration is dominated by either males (construction workers from India to Dubai) or females (Philippine females out-migrating to MEDCs).
- **Age**: such as retirement migration; age profile.

Social structure

- The unwelcoming attitudes of the host community when a non-indigenous group settles in an area bringing different social customs and habits. Many examples exist involving, for example, Jews, Poles, Mexicans and Turks.

Politics

- Political initiatives, laws and agreements to manage migration movements.

Economic

- Employment opportunities.
- Wage levels.
- Government assistance.

To gain a Level 3 there must be an ability to link impacts to country or region.

<p>Level 3 8–10 marks</p>	<p>Developed knowledge and detailed understanding of two impacts of migration. Balance between the two impacts. Good development of example(s).</p>
<p>Level 2 4–7 marks</p>	<p>Some knowledge and understanding of impacts of migration. Or lacks balance between the impacts. Examples are evident.</p>
<p>Level 1 0–3 marks</p>	<p>Basic knowledge and understanding of impacts of migration. Little use of examples.</p>

(c) Discuss some of the issues associated with ageing populations. [10]

Some suggested responses are given below. Credit breadth and/or depth.

- Concentrations in specific regions putting a strain on services.
- Not enough vigorous, innovative and willing young workers to pay taxes to look after the old, so the economy will stagnate.
- Industries catering for the youth market will decline.
- Immigration of different ethnic groups may cause social tension.
- Social consequences within the family regarding care for the elderly.
- Provision of suitable accommodation – care homes, warden assisted properties etc.
- Candidates may consider that attempting to address an ageing population is an issue in its own right and may outline some attempted solutions to the initial issues.
- Government incentives to encourage births (e.g. extending both maternity and paternity leave).
- Encouraging immigration.
- Increasing industrial productivity.
- Raising the retirement age.
- Increasing taxes to pay for pensions and health care of the old.

Equally valid are other issues which candidates may identify such as:

- Less crime.
- Fewer road deaths.
- Smaller class sizes.
- Spending the money saved on education on health care services.
- Less pressure on the environment to cope with a rising population, so fewer houses need to be built.
- Older workers have a wealth of experience and knowledge which is valuable (e.g. B&Q employing older workers).

Level 3 8–10 marks	Developed knowledge and detailed understanding of the issues of ageing populations. Good development of example(s).
Level 2 4–7 marks	Some knowledge and understanding of the issues of ageing populations. Example(s) are evident.
Level 1 0–3 marks	Basic knowledge and understanding of the issues of ageing populations. Little use of example(s).

Q.2 (a) Use *Figure 2* to describe how rural settlements may be perceived. [5]

This question involves two elements – use of Figure 2 and perceptions of rural settlements.

Some suggested descriptions from Figure 2:

- The photograph shows an isolated, nucleated rural settlement surrounded by fields used for mixed farming. There is a farm to the top left of the photograph.
- The scene is very picturesque, idyllic, “chocolate box”.
- The village appears to be sited in a valley and may have a stream flowing through it providing an enhanced scenic quality.
- The houses appear to be constructed of traditional local stone giving a cottage-style feel to the architecture.
- This is a very small village with a limited population and there appears to be a lack of services visible such as a church, shops or school in this very rural location.

Some suggested perceptions (perception is in the eye of the beholder!):

- The traditional rural settlement perception is that there is a good community spirit and a close knit community where people are very sociable and meet regularly in a socially cohesive and amicable way to enjoy village functions.
- There is less crime in general and less vandalism in particular.
- It is peaceful, tranquil, and quiet.
- There is little if any type of pollution.
- Any schools in the vicinity provide good education.
- Houses and gardens are large and people living here are, on average, wealthier.

The opposite perception of a dull and boring place where commuters are out of the village all day and most of the houses are second homes can also be given full credit.

Award a maximum of 3 marks for statement about perceptions of rural settlements; also a maximum of 3 marks for statements that could be derived from photographic evidence.

(b) Outline two ways in which rural settlements are changing. [10]

The question asks about the **nature** of changes and not the process of change.

The question is specifically about **settlement** change not rural change in general.

Settlements located closer to the rural–urban fringe are changing in the following ways and candidates may include some of these:

Demographic: The structure of the village population will change with a younger age range.
Local schools will also change in their number of pupils.

Environmental: The built environment: housing, retail parks, warehouse and distribution centres and manufacturing industry have been built on the edge of urban areas. These developments often pay no regard to the traditional architectural quality of the existing rural environment. There might be noise disturbance from extra traffic and partying from the newcomers.

Communication: Motorway junctions and outer ring roads have encouraged more vehicles to travel in the fringe creating exhaust-gas and noise pollution.

Economic: Traditional shops and services in many villages have had to close as they cannot compete with the encroaching out-of-town facilities and the increasing car ownership of the new inhabitants.

Socio-political: Urbanites now form the majority of fringe dwellers and will demonstrate different values and attitudes from the traditional rural inhabitants. Urbanites may bring what might be seen as urban anti-social habits with them, with increasing crime and graffiti, and possible domination of local politics on Parish Councils. Here decisions could be made favouring the urbanites views, which may cause consternation to long-established rural dwellers: e.g. conflicts over noises from animals and farm machinery as the reality of country life takes over from the perception.

Settlements in more remote rural areas are undergoing changes, some of which candidates may include:

Demographic: A loss of the older local inhabitants as they sell their home at a vastly inflated price, often to second-home owning urban folk.
This also causes an exodus of the young as house prices become unaffordable.
Numbers of permanent residents decline as temporary residents at weekends and holidays increase.

Environmental: The newcomer weekenders do not respect the ways of the countryside and create noise and nuisance in the local area.
Inappropriate architectural changes may occur.

Communication: A small amount of traffic during the week becomes traffic jams at weekends and holidays.

Economic: Services close down: the post office, the bus, the village store; but some locals are provided with employment in renovating, decorating and gardening for the second-home owners. Leisure providers may benefit.

Social / cultural / political: There will be conflicts about future village development. Language issues may arise in certain parts of the UK.

Case studies to exemplify some of the above suggestions in either non-extreme rural and/or extreme rural are expected.

Answers may give the two ways from settlements near to the urban areas and/or remoter settlements; or they could take one settlement and outline two changes there in detail.

Level 3 8–10 marks	Developed knowledge and detailed understanding of two ways in which rural settlements are changing. Good development of example(s).
Level 2 4–7 marks	Some knowledge and understanding of two ways in which rural settlements are changing. May be an imbalance between the two ways. Or , one way developed in detail. Example(s) are evident.
Level 1 0–3 marks	Basic knowledge and understanding of ways in which rural settlements are changing. Little use of example(s).

(c) Explain why ghettos develop within some urban settlements. [10]

Three definitions of a ghetto follow:

- A ghetto is a “portion of a city in which members of a minority group live especially because of social, legal or economic pressure”.
- A poor, densely populated city district occupied by a minority ethnic group linked together by economic hardship and social restrictions.
- Any segregated mode of living or working that results from bias or stereotyping.

These definitions encompass broad ideas and may be interpreted to include studentification and poor working-class white people on UK council estates as well as the richer enclaves of cities. So accept broad interpretations of a ghetto. ‘Develop’ may be interpreted as the original creation of a ghetto or as the continuing changes that occur within a ghetto.

The most commonly recognised ghetto would lie within the inner city of an urban area and be composed of a group of people segregated from the indigenous population by their unified religion, e.g. Jewish; colour, e.g. black; language, e.g. Polish. Often a lack of money is also regarded as identifying a low class group separated from the rest of a more wealthy society.

Suggestions

Voluntary ghettoisation

Demographic: Young people, such as students, choose to live in the inner city to be close to the city-centre-entertainment facilities and perhaps an inner city university.

Cultural/political: Although people have a theoretical free choice of where to live, many voluntarily choose to live close to other members of the same group to gain a homely feeling of belonging and a feeling of security and comfort in familiar surroundings.

- Feelings of isolation are reduced and provide a sense of community and security.
- An ethnic cluster is a defensive reaction related to fear of conflict with surrounding groups.
- Avoidance of outside contact so residents can support each other and establish their own shops, services and places of worship to serve their community’s needs.
- Preservation of identity and promotion of cultural heritage. Groups with their own language, religion and a social organisation often have a strong wish to remain distinctive.
- The attack function as a group can plan and carry out activities which promote solidarity and help to ensure survival in a possibly hostile environment. These activities can be peaceful as in protests against racial discrimination.

Economic: Others may choose the inner city to avoid commuting to a job as a shop assistant in the city centre. Some may choose to live in the inner city as they cannot drive and the inner city is well served by buses feeding into, and out of the city centre and it may be within walking distance.

Imposed ghettoisation

Cultural/political: Violence, harassment and threatening behaviour will prevent certain ethnic groups from living integrated with others. Serbs and Moslems in Bosnia for example; Catholics and Protestants in Belfast is another good example as is a non-white skin colour in areas of council housing estates in the UK and a non-black skin colour in the inner city area of Harlem, New York. Councils using points systems to allocate housing are another example.

Economic: Gatekeepers financially impose barriers to integration with money lending policies.

Intra- and extra-urban migrations are often implicit in moving different groups of people to their current ghetto location: so answers may relevantly include some of the following points:

- Filtering from the inner city to the suburbs and possible rural areas (counter-urbanisation) opens the way for migrants to enter the urban area from outside to take up vacated cheap property.
- Cross-settlement suburb to suburb movements.
- Re-urbanisation often begins in the rural areas and ends usually in a redeveloped inner city forming a wealthy enclave often surrounded by poorer areas (London Docklands): the inverse of the traditional idea of a ghetto, but acceptable.

<p>Level 3 8–10 marks</p>	<p>Developed knowledge and detailed understanding of some of the reasons why ghettos develop in some urban settlements. Good development of example(s).</p>
<p>Level 2 4–7 marks</p>	<p>Some knowledge and understanding of some of the reasons why ghettos develop in some urban settlements. Example(s) are evident.</p>
<p>Level 1 0–3 marks</p>	<p>Either basic knowledge and understanding of some of the reasons why ghettos develop in some urban settlements or description of ghetto characteristics. Little use of example(s).</p>

Q.3 (a) Describe the regional variations in tourism for Wales shown in *Figure 3*. [7]

The table shows tourism statistics for four regions within Wales. There are 5 categories of statistics within the table:

- average spend
- length of stay
- total number of trips
- percentage information
- total spend.

To achieve higher marks i.e. Level 3 there should be an overview or a manipulation of the data, and examples are given below.

Suggested responses:

- North Wales received more trips in 2008 than any other region at 3.18million, but it has the lowest average spend per trip at £157.
- North Wales gains the greatest revenue from tourism at nearly £500million which is double the income of both Mid and SW Wales.
- SE Wales has the highest average spend per trip (£174) and per night (£57) with the smallest average length of stay at only 3.05 nights.
- SE Wales has the highest one night (26%) stays of any region.
- SW Wales is the region in which tourists spend the longest with 28% of stays being over 7 nights.
- Mid Wales has the lowest number of visitors at 1.42 million, but visitors spend the second highest per trip (£170) and have very nearly the highest average stay of 4.01 nights.

Credit breadth and/or depth.

Level 3 6–7 marks	Developed description of a variety of variations linked to the data in the table incorporating selective use of relevant regions and figures.
Level 2 3–5 marks	Some description of variations linked to the data in the table incorporating some selective use of relevant regions and figures. Maximum level for direct lift of material.
Level 1 0–2 marks	Basic description with very vague references to the table and limited incorporation of statistics and/or regions from the table.

- (b) Describe *two* techniques that could be used to present the data in *Figure 3*. Justify your choices. [8]

Mapping techniques

Selected statistics from the table could be converted into cartographical displays on a base map of the Welsh regions.

- Choropleth
- Dot
- Proportional symbols

Graphical techniques

Statistical manipulation could occur to display figures from the table in graphical and chart formats.

- Line graphs
- Bar charts
- Pie graphs
- Pictograms

Illustrations would be a welcome addition to any answer.

Statistical manipulation of the figures from the table is not a presentation technique on its own. Presenting the data in an alternative tabular format is not credit worthy.

Level 3 7–8 marks	Detailed and developed knowledge and understanding used to describe two techniques of presenting information. Accurate illustrations are present related to the data in Figure 3. Able to offer some justification of the techniques.
Level 2 4–6 marks	Some knowledge and understanding used to describe two techniques of presenting information. There may be an imbalance between the two techniques. Some illustrations may aid the answer.
Level 1 0–3 marks	Basic knowledge and understanding used to describe two techniques of presenting information. Any illustrations are imprecise and inaccurate.

- (c) **Outline limitations in your investigation into a changing human environment and suggest ways of overcoming them.** [10]

You should state clearly the question that you have investigated.

The question involves two elements – limitations and ways of overcoming them. Marking will depend on the quality of response and must be adjusted to suit individual studies presented. A summary of limitations and how they may be overcome should be present. By recognising a limitation before commencing or during an investigation and then overcoming that limitation by replacing that activity with another is a very valid comment.

Credit highly any valuable, positive and geographically appropriate comments within the context of a valid geographical enquiry.

Credit with caution simplistic, self evident, generalised and vague comments (e.g. we need more data); i.e. to achieve Level 3, statements must be applied to their specific study.

<p>Level 3 8–10 marks</p>	<p>Developed knowledge and detailed understanding of the limitations in an investigation and suggestions to overcome those limitations. Very good development using the context of the investigation.</p>
<p>Level 2 4–7 marks</p>	<p>Either, some knowledge and understanding of the limitations in an investigation and suggestions to overcome those limitations. Some development using the context of the investigation. Or some imbalance between limitations and suggestions to overcome them.</p>
<p>Level 1 0–3 marks</p>	<p>Basic knowledge and understanding of the limitations in an investigation and suggestions to overcome them. Basic development using the context of the investigation. Either limitations or suggestions to overcome them are present, not both.</p>

G3 Assessment Objectives Grid

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%)

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	<p>Evaluate requires an overall statement of the overall quality or value of the feature/issues being considered. You need to <u>state 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.</p> <p>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.</p> <p>Opinions and conclusions should be presented clearly and supported with appropriate evidence and sound argument.</p>
To what extent	Give possible explanations for and against and justify which you tend to favour
How far do you agree	
Examine	Investigate in detail, offering evidence for or against a point of view or judgement.

G3A
SECTION A: CONTEMPORARY THEMES IN GEOGRAPHY

Summary Descriptor	Marks out of 25	Criteria
Very good Level 5	21 - 25	<ul style="list-style-type: none"> • 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 Level 4	16 - 20	<ul style="list-style-type: none"> • 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 <p><u>At the lower end</u></p> <ul style="list-style-type: none"> • Arguments may not be fully developed • Some lack of balance • Minor flaws in logical ordering or linguistic expression • Diagrams not well-integrated
Average Level 3	11 - 15	<ul style="list-style-type: none"> • 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. • Examples are superficial and may be variable. • Limited use of basic diagrams. • There may be some loss in coherence. • Language is correct but simplistic. <p><u>At the lower end</u></p> <ul style="list-style-type: none"> • An unfocused or potentially relevant response • Weaknesses in structure and expression
Marginal Level 2	6 - 10	<ul style="list-style-type: none"> • 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. <p><u>At the lower end</u></p> <ul style="list-style-type: none"> • Understanding of the question is weak
Weak Level 1	1 - 5	<ul style="list-style-type: none"> • There is minimal understanding of subject material. • 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.

GEOGRAPHY G3
CONTEMPORARY THEMES IN GEOGRAPHY
SECTION A

Theme 1 Extreme Environments

Q.1 Assess the impacts of human activity on one or more extreme environments. [25]

Guidance

Candidates:

- i. should show knowledge and understanding of the impacts of human activity on either desert or tundra environments or both; better candidates will show a more detailed knowledge and understanding;
- ii. should show the ability to assess the impacts of human activity on either desert or tundra environments or both; better candidates will assess the impacts throughout, whereas the average candidate may only assess the impacts in passing or perhaps briefly in their conclusion.

Candidates may examine the impacts caused by population growth, mineral exploitation, agriculture and tourism in desert environments. 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. Impacts on tundra environments that may be identified include those from mineral exploitation, airborne pollution, global warming and tourism. It is not expected that all of these threats are considered in the context of both desert *and* tundra environments. The approach to the question may be either regional (desert /tundra or both) or thematic by looking at the different impacts individually. Reference needs to be made to the fragile and special qualities of the tundra and/or desert environment(s) with explanation and illustration of this fragility. Reference to impacts on indigenous societies and the economy are also worthy of credit. The assessment could come in the form of comparisons between desert and tundra environments or take the form of an assessment of costs compared to benefits, but be prepared to credit those candidates who see a spatial difference in impacts. In order to reach the **very good** band, Level 5, in addition to sound factual content of the impacts of human activity on either desert or tundra environments or both, there needs to be an assessment of these. Expect examples to be well integrated in the answer.

Q.2 Discuss how human activity in tundra environments can be managed. [25]

Guidance

Candidates:

- i. should show knowledge of the characteristics of and human activity in tundra environments;
- ii. should show understanding of strategies used to manage the characteristics of and human activity in tundra environments;
- iii. should show the ability to discuss the strategies; better candidates should discuss the strategies throughout, whereas the average candidate may only discuss the strategies in passing or perhaps briefly in their conclusion.

In relation to tundra environments, candidates may examine the threats posed by mineral exploitation, airborne pollution, global warming and tourism. Do not expect reference to all these for full marks. They may refer to the negative impacts on a variety of elements of the tundra environment. Reference needs to be made to the fragile and special qualities of the tundra environment with explanation and illustration of the strategies used to manage this fragility. When discussing the strategies used to manage tundra environments, candidates may present a range that could include conserving the tundra environment, alleviating the impacts of human activity, controlling the use of tundra environments and monitoring the impacts of human activity. Candidates should 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 management strategies to be discussed. The discussion could take the form of comparisons in place elsewhere to manage tundra environments or be on the basis of the extent to which tundra environments can be managed. In order to reach the **very good** band, Level 5, in addition to sound factual content of the strategies used to manage human activity in tundra environments, there needs to be a discussion of these.

Theme 2 Landforms and their Management

Glacial Environments

Q.3 Examine the relative importance of erosion and deposition in the development of one or more glacial landforms. [25]

Guidance

Candidates:

- i. should show a knowledge and understanding of processes of glacial erosion and deposition;
- ii. should show an understanding of the link between the processes and the development of glacial landforms;
- iii. should show the ability to discuss the relative importance of these processes in producing one or more glacial landforms.

Candidates should examine both processes of erosion and deposition in the development of one or more glacial landforms. Better candidates should examine the production of at least one macro or meso-scale landform such as a corrie or a ribbon lake that is the result of both erosional and depositional glacial processes. Credit any answers that refer to fluvio-glacial processes and associated landforms. Some candidates may widen the argument to examine the relative influences of erosion and deposition against other processes. This approach is open to maximum marks as long as the link between the erosional and depositional processes and their relative roles in the production of landforms is discussed. Candidates who simply describe the formation of landforms should be limited to the top of **average**, Level 3. To reach the **'very good'**, Level 5 category of assessment, candidates need to examine the 'relative importance' of the processes discussed.

Q.4 Discuss the opportunities and limitations presented by the shift of the permafrost limit. [25]

Guidance

Candidates:

- i. should show a knowledge and understanding of the opportunities and limitations presented by the shift of the permafrost limit; better candidates will show a more detailed knowledge and understanding;
- ii. should show the ability to discuss the opportunities and limitations presented by this shift.

The opportunities for human activity presented by the shift of the permafrost limit include settlement, the development of agriculture, mining and oil extraction industries and tourism. Limitations for human activity include freeze thaw in the active layer damaging structures and construction and engineering in permafrost zones causing ground subsidence and accelerating thermokarst development. The discussion could come in the form of an assessment of opportunities compared to limitations, but be prepared to credit those candidates who see a spatial difference in opportunities and limitations. To reach the **'very good'**, Level 5 category of assessment, a discussion of the opportunities and limitations is needed.

Coastal Environments

Q.5 Examine the relative importance of erosion and deposition in the development of one or more coastal landforms. [25]

Guidance

Candidates:

- i. should show a knowledge and understanding of processes of coastal erosion and deposition;
- ii. should show an understanding of the link between the processes and the development of coastal landforms;
- iii. should show the ability to discuss the relative importance of these processes in producing one or more coastal landforms.

Candidates should examine both processes of erosion and deposition in the development of one or more coastal landforms. Better candidates should examine the production of at least one landform such as a spit that is subject to both erosional and depositional coastal processes. Some candidates may widen the argument to examine the relative influences of erosion and deposition against other processes. This approach is open to maximum marks as long as the link between the erosional and depositional processes and their relative roles in the production of landforms is discussed. Candidates who simply describe the formation of landforms should be limited to the top of **average**, Level 3. To reach the **'very good'**, Level 5 category of assessment, candidates need to examine the 'relative importance' of the processes discussed.

Q.6 'Coastal environments need to be managed'. Discuss. [25]

Guidance

Candidates:

- i. should show a knowledge and understanding of the impact of coastal processes and landforms on human activity and/or of the impact of human activities on coastal environments;
- ii. should show the ability to discuss the extent to which these impacts require management.

Candidates may refer to intensive and extensive building and infrastructure close to a coastal edge where coastal erosion is rapid, removal of coastal deposits through activities such as dredging, inappropriate leisure activities such as dune trampling and cliff scaling, which adversely affect coastal processes or damage coastal forms. Strategies to manage these impacts will depend on the environment chosen, but may be expected to include protective measures such as prevention of access, control of occupation and character of land use through planning controls and/or education to modify human activity. If the focus is on coastal processes, candidates may make initial reference to cliff erosion or deposition in estuaries and deltas. Their discussion of the need for management should be centred mainly on reducing the detrimental effects of landforms or coastal processes on human activity. To reach the **'very good'**, Level 5 category of assessment, candidates need to discuss the need for coastal management. Better candidates may discuss the question in the context of alternative strategies or the appropriateness of management strategies.

Theme 3 Climatic Hazards

Q.7 Explain how global atmospheric circulation gives rise to global climatic zones. [25]

Guidance

Candidates:

- i. should show knowledge and understanding of global atmospheric circulation;
- ii. should show knowledge and understanding of the link between global atmospheric circulation and the formation and location of broad global climatic zones.

Candidates should demonstrate their knowledge and understanding of global atmospheric circulation and its influence on the formation and location of global climatic zones. 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. Candidates should also demonstrate a broad knowledge and understanding of the link between global atmospheric circulation and the distribution of the world's major climate types for the polar, tropics and temperate latitudinal belts. Detailed reference to particular climatic types is not required by this question. The explanation of global atmospheric circulation may be almost entirely met by well-annotated diagrams and relevant, accurate diagrams should be worthy of good credit. Where the explanatory side is limited, it is difficult to see the assessment reaching beyond **average**, Level 3 and for '**very good**', Level 5 a well-explained answer with evidence of thorough and accurate knowledge and understanding is needed.

Q.8 Explain the causes of hazards associated with low-pressure systems. [25]

Guidance

Candidates:

- i. should show knowledge and understanding of the formation of low-pressure systems associated with waves in the upper westerlies in temperate latitudes or disturbances in the tropical atmospheric circulation;
- ii. should show knowledge and understanding of the hazards associated with low-pressure systems in either tropical or temperate regions.

Candidates should show knowledge and understanding of the climatic causes of, and the weather associated with, low-pressure systems together with the human circumstances that constitute the hazard. In the case of tropical areas candidates will deal with tropical depression/storm/hurricane formation together with a description of the weather conditions associated with them that contribute to the hazard. In the case of temperate regions, climatic causes will generally centre around the causes and conditions associated with deep depressions bringing gales and heavy rain or, in winter, heavy snowfall. In the case of coastal areas the occurrence of a deep depression in association with exceptionally high tides may increase the severity of the hazard. To reach **'very good'**, Level 5, a thorough explanation of the formation of low-pressure systems is required together with a detailed description of their associated weather conditions and the human circumstances that constitute the hazard. The answer may be effectively supported with appropriate case studies.

Theme 4 Development

Q.9 'The development gap is widening.' Discuss. [25]

Guidance

Candidates:

- i. should show knowledge and understanding of the term the 'development gap';
- ii. should show knowledge and understanding of the reasons for the widening of the development gap;
- iii. should show the ability to discuss the statement; better candidates should provide a more balanced discussion and may show knowledge and understanding of strategies that are working to close the gap.

It is clear that there are groups of countries that share common characteristics. Some of these groupings are very polarised, leading to ideas of a development gap. This is a broad question which can be approached in a number of different ways, either by discussing the barriers to development such as Third World Debt, trade blocs and social constraints and cultural barriers that widen the gap between MEDCs and LEDCs, particularly those of sub-Saharan Africa or candidates may make reference to the countries in Brandt's 'South' that have recently benefited from the globalisation of economic activity, as illustrated by the rise of NICs/RICs and oil rich countries and identify that these benefits are not being passed on to, and have accentuated the problems of, sub-Saharan Africa. Expect the explanation to be supported by appropriate exemplification. To reach the **'very good'**, Level 5 category of assessment, candidates need to discuss the statement.

Q.10. Examine the factors that cause development to be unequal between countries. [25]

Guidance

Candidates:

- i. should show knowledge and understanding of the differences that exist in levels of world development;
- ii. should show knowledge and understanding of the factors that cause unequal development;
- ii. should show the ability to examine factors; better candidates should provide a more detailed examination.

The identification of inequalities may include reference to the large economic and consequent social divide between richer countries and poorer countries. This part of the response may be usefully supported by actual statistics. An examination of the factors that cause unequal development between countries may be approached by systematically identifying the physical, economic, social, political and cultural factors affecting the rate and nature of development. The cover need not be exhaustive. Expect the explanation to be supported by appropriate exemplification. To reach the **'very good'**, Level 5 category of assessment, candidates need to examine the factors covered.

Theme 5 Globalisation

Q.11 Examine the costs and benefits of outsourcing and offshoring. [25]

Guidance

Candidates:

- i. should describe and briefly explain the costs and benefits of outsourcing and offshoring;
- ii. should show the ability to examine the costs and benefits of outsourcing and offshoring; better candidates should provide a more detailed examination.

The distinction between outsourcing and offshoring is not always clear and does not need to be stated by candidates, but generally offshoring occurs when TNCs transfer manufacturing production to LEDCs or NICs whereas outsourcing is the global shift of services from MEDCs to NICs, RICs and LEDCs. Outsourcing and offshoring bring huge benefits for countries such as India in terms of job creation, higher salaries, greater disposable incomes and a reduction in gender apartheid. However there are also disadvantages including westernisation and loss of cultural identity, unsocial hours and increasing social divisions. The impact of outsourcing and offshoring for MEDCs is simply more profitable returns for the companies which participate in these activities so that they can maintain employment in the quaternary jobs in the home country and in the manufacturing/service jobs in the production countries. These advantages must be set against significant job losses in the service sector in MEDCs, particularly female jobs in vulnerable deindustrialised areas. Evaluative comment may be based on an analysis of benefits: costs or in terms of differences within chosen LEDCs/MEDCs or differences between LEDCs/MEDCs. To reach **'very good'**, Level 5, a well-balanced, well-located answer with some depth of discussion is needed.

Q.12 'Globalisation decreases the development gap.' Discuss.

[25]

Guidance

Candidates:

- i. should show knowledge and understanding of the term the 'development gap';
- ii. should show knowledge and understanding of the role globalisation plays in both in decreasing and widening the gap;
- ii. should show the ability to discuss the statement; better candidates should provide a more detailed discussion.

The question is a very broad one and candidates may approach it from a number of different perspectives – discussing the effect of cultural, political and/or economic globalisation on the development gap. In cultural terms the world is increasingly displaying a lack of local cultural diversity. People in the very remotest villages in rainforests, in high mountains and in Arctic conditions appear to wear increasing similar garments with brand logos, eating McDonalds and drinking Coca Cola. There is therefore evidence of cultural globalisation operating to close the gap. Tourism, in particular, is guilty of transferring customs and cultures to all parts of the world. However where individuals and groups preserve what they can of their traditional cultural identities, the gap in development appears wider. In terms of political globalization, TNCs demonstrate more wealth and power than the LEDC countries in which they locate branch plants and can, therefore, to some extent, act like a colonial power with empire and super power status to negotiate advantageous terms of business. Although committed to free trade, global organisations such as the WTO (and the World Bank/IMF through SAPs/PRSPs) operate in a manner that is unfair to LEDCs, therefore widening the development gap. The NGO Forum stated 'Globalisation according to the free market model is making the rich richer and the poor poorer'. One of the negative effects of economic globalisation has been the growing development gap, the increasing disparity in levels of development between countries, fuelled by the uneven pace of development between different parts of the globe. Trade patterns and patterns of foreign direct investment reveal the special economic problems of sub-Saharan African countries. Candidates may make reference to the countries in Brand's 'South' that have recently benefited from the globalisation of economic activity, as illustrated by the rise of NICs/RICs and oil rich countries and identify that these benefits are not being passed on to, and have accentuated the problems of, sub-Saharan Africa. Expect the explanation to be supported by appropriate exemplification. A counter-argument to the statement based on evidence is equally acceptable. To reach the **'very good'**, Level 5 category of assessment, candidates need to discuss the statement.

Theme 6 Emerging Asia

CHINA

Q.13 'Urban communities in China are not sustainable.' Discuss. [25]

Guidance

Candidates:

- i. should identify that there are a number of challenges created by rapid urban growth in China;
- ii. should show the ability to discuss the extent to which urban communities are sustainable; better candidates will provide a more detailed discussion.

The challenges created by rapid urban growth in China include the physical expansion of urban areas, the availability of and pressure on resources and energy provision, the amount and quality of water supply, the provision of housing due to privatisation of industries and privatisation of house building; social and urban/rural inequalities and the sustainability of cities and SEZs (Special Economic Zones). Some of these are familiar to all cities but others reflect China's recent history. The scale of the problems is another unique characteristic. Economic challenges associated with China's urbanisation include the growth of the informal sector, problems of service provision and exploitation of the labour force. Social challenges include deprivation and poverty, segregation, problems associated with housing, health and crime. The Chinese government argues that it has helped lift more than 200 million people out of poverty. Millions of people have migrated from rural to urban areas to fill the jobs generated by the economic explosion. However, anti-poverty campaigners argue that many workers receive low wages and live in poor conditions. An estimated 200,000 people each year move to slums on the southern outskirts of the capital, Beijing. Candidates are likely to argue that urban communities are not sustainable. There may be some reference to ecocities (Dongtan, near Shanghai) and to recent proposals for the creation of a mega-city twice the size of Wales. To reach the '**very good**', Level 5 category of assessment, candidates need to discuss the statement with specific comment regarding sustainability.

Q.14 Examine environmental challenges facing China.

[25]

Guidance

Candidates:

- i. should show knowledge and understanding of some of the environmental challenges facing China; better candidates will demonstrate a more detailed knowledge and understanding;
- ii. should show the ability to examine the challenges discussed; better candidates should provide a more detailed examination.

Candidates should discuss in some detail examples of at least two environments that are being or have been exploited. Candidates are most likely to use some of the following examples: soil erosion in loess plateau; industrial pollution; use of water and water shortages in Beijing; availability of water from South – North water transfer scheme; encroaching desertification from the north, Mongolia or the need for energy supplies. Candidates will need to show knowledge and understanding of the causes and consequences of the exploitation of China’s environment and provide an examination of the challenges identified. The term ‘challenges’ may be interpreted by candidates as simply the difficulties presented by the exploitation of China’s environment, rather than in the wider sense of demands that require a response. Answers that interpret the question in this way are acceptable, but an examination of these difficulties is needed for the response to reach the **‘very good’**, Level 5 category of assessment.

INDIA

Q.15 ‘Urban communities in India are not sustainable.’ Discuss.

[25]

Guidance

Candidates:

- i. should identify that there are a number of challenges created by rapid urban growth in India;
- ii. should show the ability to discuss the extent to which urban communities are sustainable; better candidates should provide a more detailed discussion.

Economic challenges associated with India’s urbanisation include the growth of the informal sector, problems of service provision and exploitation of the labour force. Social challenges include deprivation and poverty, segregation, problems associated with housing, health and crime. The urban population of India has rapidly increased in recent years. In 1961 about 79 million persons lived in urban areas of the country, by 2001, their number had gone up to over 285 million, an increase of over 350 percent in the last four decades, where over 400 million were in 2011 and will be 533 million by the year 2021. In 1991 there were 23 metropolitan cities, which increased to 35 in 2001. As a result, most urban settlements are characterized by shortfalls in housing, inadequate sewerage, poverty and social unrest making urban governance a difficult task. Candidates are likely to argue that urban communities are not sustainable. To reach the **‘very good’**, Level 5 category of assessment, candidates need to discuss the statement with specific comment regarding sustainability.

Q.16 Examine environmental challenges facing India.

[25]

Guidance:

- i. Candidates: should show knowledge and understanding of some of the environmental challenges facing India; better candidates will demonstrate a more detailed knowledge and understanding;
- ii. should show the ability to examine the challenges covered; better candidates should provide a more detailed examination.

Candidates should discuss in some detail examples of at least two environments that are being or have been exploited. There are potentially a wide range of examples. Candidates are most likely to use the following examples: deforestation – need for fuel; increasing desertification in Rajasthan; air and water pollution in Delhi; Bhopal Union Carbide industrial disaster; Ganga Action Plan; Sardar Sarovar / Narmada scheme; intensive use of chemicals and pesticides in rural areas as part of Green Revolution technology; energy demand – use of coal, with limited development of alternative energy resources; flooded river valleys and increase in malaria. Candidates will need to show knowledge and understanding of the causes and consequences of the exploitation of India's environment and provide an examination of the challenges identified. The term 'challenges' may be interpreted by candidates as simply the difficulties presented by the exploitation of India's environment, rather than in the wider sense of demands that require a response. Answers that interpret the question in this way are acceptable, but an examination of these difficulties is needed for the response to reach the **'very good'**, Level 5 category of assessment.

G3 Assessment Objectives Grid

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

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.

GEOGRAPHY G3

CONTEMPORARY THEMES AND RESEARCH IN GEOGRAPHY

SECTION B: RESEARCH

- (a) Evaluate data presentation techniques that could be used in an investigation into (context). [10]

There are two elements to this question – evaluation and data presentation techniques. There is no requirement to draw parallels with their own study, but candidates should demonstrate their knowledge of a range of data presentation techniques that could be used for their chosen study. Any suitable relevant data presentation technique that is appropriate to the topic is acceptable; examples may include: maps, graphs, photos and other ICT methods, tables.

From the WJEC list of command words '**Evaluate**' expects candidates: 'to give an overall quality or value to the feature/issue being considered. You need to 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'.

Expect evaluation to include the quality, complexity, and/or value of the presentation techniques and possibly reference to the appropriateness of the techniques given. Better candidates may link their response to the appropriateness of the data available for their context, which could be quite variable. Award a maximum of Level 2 if there is no evaluation.

The WJEC document: *Enquiry Approach* suggests the following elements from data refinement and display.

- Refine the data into tables.
- Use a range of appropriate graphical techniques (given on pages 15 and 16 of the specification) to present the data accurately and clearly. Justify your choices.
- Include any cartographical (mapping) techniques (given on pages 15 and 16 of the specification). Justify your choices.
- Evaluate your methods of presentation – how effective are they in showing the data you collected. Would alternative methods have been better?

Level 3 (8–10 marks)	Answers contain a detailed evaluation of a range of appropriate data presentation techniques that could be used in the context of the selected research area, developed in some depth, with some appreciation of strengths and weaknesses. Answers at this level must have reference to the chosen theme.
Level 2 (4–7 marks)	Answers at this level give some evaluation of data presentation techniques which can either be through detail on a greater variety of methods or on fewer methods in greater detail. Candidates may provide some arguments for and against the data presentation methods described.
Level 1 (1–3 marks)	Answers provide a simple and/or basic description of data presentation methods, with little or no evaluation of their relative merits.

- (b) **Outline the findings of your personal research into (context) and discuss the suitability of the methods of obtaining information you used.** [15]

From the WJEC list of command words '**Outline**' expects candidates to: 'give a brief summary of the main characteristics'. '**Discuss**' expects candidates to: 'build up a balanced argument about an issue and present more than one side of the evidence with supporting examples'.

The content will depend on the investigation undertaken, but in their answers candidates should outline the main findings drawn from their personal research and discuss the methods used to obtain information in a critical manner. Expect discussion for and against their methods. Better answers may include reference as to how methods of obtaining information can be related to possible theory, further application of geographical knowledge related to the topic, planning, data presentation and data analysis.

Credit breadth and/or depth but answers which are unbalanced – mostly about findings or the suitability of methods – are less likely to be awarded Level 4 marks.

<p>Level 4 (13–15 marks)</p>	<p>Answers contain a developed outline of the findings of their investigation. Expect responses to give either a variety of findings or greater depth if fewer findings are considered. Answers contain a detailed discussion of the suitability of the methods used for obtaining information. Answers that reach this level are likely to be largely balanced between findings and methods, which may in turn be supported by evidence.</p>
<p>Level 3 (9–12 marks)</p>	<p>At this level answers may be unbalanced between findings and suitability of the methods.</p> <p>Answers may contain either a good summary of the findings or the suitability of the methods of their investigation. Expect responses to give either a variety of findings / suitability of the methods or greater depth if fewer findings / suitability of the methods. There may be some supporting evidence.</p>
<p>Level 2 (5–8 marks)</p>	<p>Answers contain a generalised outline of the findings of their investigation, with a limited discussion of the suitability of the methods of obtaining information. Answers with no reference to the context could reach the top of this level.</p>
<p>Level 1 (1–4 marks)</p>	<p>Limited findings and/or a basic description of the methods of obtaining information.</p>

G4 Assessment Objectives Grid

Question	AO1 Knowledge & Understanding	AO2 Application	AO3 Skills	Total
1	4 (concepts of place, space and diversity)	3 (interpreting & unfamiliar context)	3 (analyse and synthesise geographical information)	10
2	3 (select human processes underpinning concepts, examples)	4 (application in unfamiliar contexts)	3 (carry out research and use of methods)	10
3	3 (people- environment interactions)	3 (analysis and unfamiliar contexts)	4 (research and communication)	10
4	7 (extend geographical ideas, concepts and processes)	11 (consider new ideas and developments, evaluation)	7 (synthesise information, reach conclusions, and communicate findings)	25
5	7 (extend geographical ideas, concepts and processes)	11 (evaluation of viewpoints, extend geographical ideas, concepts and processes)	7 (reach conclusions and communicate findings)	25
Total	24 (30%)	32 (40%)	24 (30%)	80 (100%)

GENERIC MARK SCHEME

These descriptors give an outline of the qualities expected of answers at each level. These descriptors are written into the mark scheme for the examination, and may be modified beyond these descriptors to accommodate the demands of individual questions. Mark the answers according to these level descriptors 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 an unanticipated way, but it is clear that there is some substance to the answer, the following guidelines may be used in allocating a mark to the answer. If in any doubt, please consult your team leader.

10 mark questions

Explanation of some kind is the most likely demand of these questions. For other kinds of command, comparable qualities to those given for explanation can be expected.

<p>Level 3 (8 - 10 marks)</p>	<p>Answers at this level have a good explanation. Explanations may be brief or quite long; their distinguishing quality is that they are clear. Answers need not be fully comprehensive but should be extensive enough to cover most aspects that can be reasonably expected for the question posed. Points of explanation should have some supporting evidence, either from resources provided or from knowledge gained from the candidate's own studies. If the question has more than one aspect, then each of these will all be addressed soundly.</p>
<p>Level 2 (4 - 7 marks)</p>	<p>Answers in Level 2 will either (i) contain a small amount of clear explanation but several points that might reasonably be expected will be missing, or (ii) be answers that are more comprehensive but the explanation is not really clear, or (iii) be clear on several points but support for the explanations will be missing or be too generalised, 'as in the Amazon'. If the question has more than one aspect, one may be dealt with adequately, but others may be underdeveloped, leading to an unbalanced answer.</p>
<p>Level 1 (1 - 3 marks)</p>	<p>In answers at this level there will only be the beginnings of an answer to the question, and will have major weaknesses. Explanations will be unclear or may be missing altogether. Correct information that could be relevant may be stated, but it will be left to the reader to put two and two together. Answers that deal with more than one point will be over simple on all of them. Any support that is given will be very general 'e.g. Africa'. If a question has more than one aspect, only one may be addressed and others ignored. Answers may be incorrect or faulty in some other way.</p>

25 mark questions

These questions will have a strong evaluative element. Some form of debate needs to be engaged in to reach the two top levels. Some questions may have a command for description or explanation in the early part of the wording. If only those early parts are attempted, answers can gain a maximum mark of the top of Level 3.

Level 5 (22 - 25 marks)	<p>A range of evidence supporting more than one possible conclusion will be clearly stated. There will be a good attempt to weigh up the evidence. This may be by showing that one piece of evidence carries more weight than others, or that there are far more points in favour of one point of view than for any others. These questions will often have a 'how far' or 'to what extent' element, and evidence given will be used deal with such aspects. The structure of the answer will be evaluative throughout. Conceptual understanding and specific knowledge will both be very good. Answers will be well ordered and logical, with clear expression in the chosen language.</p>
Level 4 (17 - 21 marks)	<p>A reasonable amount of evidence on both sides of the debate will be presented here. There will be some attempt to weigh up the evidence in order to show that it points more one way than the other, or to try and assess 'how far'. These will either be limited or confined to just one or two sentences, or unbalanced, being too sweeping for one side over others. All other aspects of the answer expected up to Level 3 will be present. Conceptual understanding or specific knowledge may be good, but not equally strong on both. Answers will have only minor flaws in logical ordering or linguistic expression.</p>
Level 3 (10 - 16 marks)	<p>These answers will have a good explanation. There will be some attempt to show that there are arguments on both sides of the case, but these will be few, scattered and in most instances, not supported by any evidence. There may be some evidence of conceptual understanding, and/or the odd piece of specific knowledge. Structure and expression may have flaws.</p>
Level 2 (5 - 9 marks)	<p>Answers at this level will be mainly simple description or basic explanation, with evidence of some of the comparable qualities expected at Level 2 for the 10 mark questions. Any attempt to deal with the evaluative components will be brief, and either be very simple, confined only to one side or have very little support. There will be weaknesses of structure and expression.</p>
Level 1 (1 - 4 marks)	<p>Some relevant knowledge may be stated, but few points will have any element of explanation. Any evaluation will be a simple statement of a point of view without any valid supporting evidence. The structure may be muddled and expression weak or unclear. Planning notes or fragments can be given a mark in this range.</p>

Geography - G4

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 on pages 3 & 4 to determine an appropriate mark. If in any doubt, please consult your team leader.

Look for the following elements in each question for annotations.

Accomplished
Sound
Beginnings

Further annotations required about elements specific to each question are noted in the indicative content that follows.

SECTION A

Q.1 Compare levels of food and energy consumption in different parts of the world. [10]

Annotations for this question are:

Comparison
Qualification
Evidence

There are two approaches to this question – either comparing food with energy or comparing food in different parts of the world and energy in different parts of the world.

Candidates may use material from almost anywhere in the Resource Folder or from their own studies, but it is most likely that they will use the two world maps, *Figures 1* and *2* from page 4, and the table, *Figure 3* on page 5. A high + high vs a low + low is the most likely comparison, with some comment that the relationship is not perfect, such as relatively high calorie intake in Nigeria with a very low energy consumption, or low calorie intake for Chad with mid-level energy consumption (from the maps), or that Brazil and South Africa do not have such a good match (from the table).

Comments may be made on food consumption from specifics, e.g. animal products, or on the undernourished and/or total energy or lack of electricity. Good answers will make clear comparisons and support their answers with evidence.

Award a maximum of Level 2 for answers that are unbalanced and deal with only one part of the question.

Level 3 (8 - 10 marks)	Clear direct comparisons made. The main relationship will be clear and supported. Anomalies or a questioning of the strength of the relationship will be given. Evidence in support will be given for almost all points made. A clear attempt is made to include a variety of parts of the world.
Level 2 (4 - 7 marks)	Comparisons will be made but may not be direct or only implied. The main relationship will be recognised, but any comments on deviation from this will be limited, if given at all. Some evidence will be given in support.
Level 1 (1 - 3 marks)	Comments on food and energy consumption may be given but not really compared. Little if any evidence is given.

Q.2 Outline opportunities for increasing energy supplies in one or more countries. [10]

Annotations for this question are:

Energy source information

Increase detail

Evidence

It is likely that most answers will have biofuels as the principal way of presenting an opportunity. *Figures 9 to 11* on pages 8 and 9 provide plenty of information on biofuels and fuel cell technology in South Africa. From page 12 to page 15 biofuels in the various parts of the world (*Figure 19*), Brazil (*Figure 21*), Vietnam (*Figure 23*) and Kenya (*Figure 25*) are mentioned. Any other methods of increasing energy supplies are equally acceptable; HEP, nuclear, wind, solar, tidal, wave and others may well be used to fit the terms of the question. In terms of opportunities, answers can focus on one method, such as biofuels, but have depth in the variety of sources and/or products, or be more wide-ranging, covering a number of methods with less (but still some) depth. Good answers will be specific about the ways supplies can be increased, and will be well supported.

Level 3 (8 - 10 marks)	Two or more opportunities for increasing energy supplies will be outlined well, including some clear explanation of how they provide opportunities. Evidence will be given in support of almost all points made.
Level 2 (4 - 7 marks)	Either one opportunity only outlined well, or more than one is presented but there is either a lack of clarity in description or any explanation attempted. Some supporting evidence is given.
Level 1 (1 - 3 marks)	One or two ways named or very simply outlined. No, or very simplistic attempt at any description or explanation given. Little, if any, evidence given.

Q.3 Explain why some countries experience shortages in food supply. [10]

Annotations for this question are:

Cause of shortage

Explanation

Evidence

Population growth features in *Figure 15* on page 11 for South Africa and that can be linked to food per capita in *Figure 5* on page 6 to develop good answers. Rainfall variability in *Figure 17* on page 11 has much potential. Information from *Figure 3* on page 5 gives lots of starting points that can be used. Food security is addressed directly in *Figure 20* on page 13 for Brazil, in *Figure 22* on page 14 for Vietnam and in *Figure 24* for Kenya on page 15. If candidates introduce other ideas such as the impacts of climate change, that is equally acceptable. Good answers will be quite specific about the pressures on food supplies and give evidence to support their answers.

Level 3 (8 - 10 marks)	Clear explanation of one or more pressures on food supplies in a particular country(ies). Explanation of why these lead to shortages is fully clear. Evidence will be given in support of almost all points made.
Level 2 (4 - 7 marks)	Either just one or more pressures on food supplies is explained, but poorly linked to any country, or shortages in a country (or countries) are identified but any explanation is clearly incomplete. Some supporting evidence is given.
Level 1 (1 - 3 marks)	Answers may present some potentially relevant material, but will lack clarity or are very simplistic. Little, if any, evidence is given.

Q.4 'Future energy needs cannot be met without threatening the sustainability of food supplies.' How far do you agree with this statement? [25]

Annotations for this question are:

Food/energy knowledge

Harmony/conflict/threat

Sustainability

How far/assessment

Evidence

Having established ways of producing more energy in Question 2, along with some awareness of some countries experiencing shortages of food supply in Question 3, candidates should have the information they need to make links between the two and make some assessments. The direct competition over the use of land for growing food or producing energy, is directly addressed in *Figure 16* for South Africa on page 11, for Brazil in *Figure 21* on page 13 and for Kenya in *Figure 25* on page 15. Much of the material in the remainder of the Resource Folder can be introduced into arguments. Increasing future energy needs can be picked up from comments on development and rising prosperity mentioned for several of the countries included. Good answers can be constructed without going beyond the biofuels versus food debate, but it is anticipated that many candidates will refer to other forms of renewable energy (or other developments in energy in general) that do not require as much land in order to address the 'how far' component.

<p>Level 5 (22 - 25 marks)</p>	<p>Answers at this level will make fully clear links between both future energy needs and food supplies with issues of sustainability introduced. 'How far' will be considered throughout, and different degrees of sustainability identified. Extensive evidence will be provided in support. The answer will be well structured and logical, and expressed in clear language.</p>
<p>Level 4 (17 - 21 marks)</p>	<p>A good answer but with either imbalance between future energy needs and food supplies, or some lack of depth if both are considered equally, or limited consideration of 'how far'. Valid points on sustainability made. Some good evidence will be given. A well-ordered answer with good expression.</p>
<p>Level 3 (10 - 16 marks)</p>	<p>A sound answer, but with either strong imbalance, or lack of depth on most points considered. Sustainability understood, but consideration of 'how far' will be very limited or missing. A little evidence will be given. Minor flaws in organisation and expression are likely.</p>
<p>Level 2 (5 - 9 marks)</p>	<p>Some valid points raised, but are limited and shallow. Sustainability may be mentioned but understanding of it is weak and simplistic. Evidence will be poorly linked to the answer. Frequent problems with structure and expression will be present.</p>
<p>Level 1 (1 - 4 marks)</p>	<p>Isolated points that could be relevant to the answer are made, but are largely up to the reader to work out. The word 'sustainability' may be included, but little understanding of it is shown. Poor or no evidence is given. The whole answer will be poorly organised and will have poor expression.</p>

SECTION B

- Q.5 Describe some of the ways in which economic development influences the demand for water. Discuss the impact of these ways on the sustainability of water supplies. [25]**

Annotations for this question are:

Economic development/water demand knowledge

Influence/impact

Sustainability

Discussion

Evidence

There will be little in the Resource Folder to help in answering this question, but if any material from the Resource Folder is used, there is no penalty for doing so. There are two commands in the question. The first is intended to be less demanding and requires candidates to describe the links between economic development and demand for water. In the majority of instances, economic development will increase the demand for water. With economic development there is likely to be an increase in industry and many industries will require water for cooling, cleaning or in a particular process. In homes, affluence will make dishwashers and washing machines available to more people along with other domestic uses such as showers. Swimming pools may become affordable along with large lawns needing watering. Golf courses will become more common needing water for greens. Farmers will be able to increase production with irrigation and greater hygiene will be employed, such as washing milking parlours. The second demand of discussion requires some appreciation of different points of view linked to sustainability is more taxing. Here the relationship between demands and the potential available supply of water, in areas used in evidence for support, will be important.

Level 5 (22 - 25 marks)	Several ways in which economic development influences the demand for water will be described in detail with clear reasoning throughout. The importance of economic development will be discussed in a balanced way, with good differentiation of impacts evident throughout. Extensive evidence will be provided in support. The answer will be well-structured and logical, and expressed in clear language.
Level 4 (17 - 21 marks)	Several ways in which economic development influences the demand for water will be suggested, but some may lack detail, or the reasoning behind them may be unclear or rather brief. The importance of some aspects of economic development will be discussed with some differentiation of impact, but not for all ways, or rather briefly if a wider range used. Some good evidence will be given. A well-ordered answer with good expression.
Level 3 (10 - 16 marks)	There will be some suggestions about economic development influencing the demand for water but there will be limited detail or reasoning about them. There may be some discussion of impact but may not be balanced in points of view. A little evidence will be given. Minor flaws in organisation and expression are likely.
Level 2 (5 - 9 marks)	Suggestions made may be sketchy with very little detail or reasoning to support them. Impacts given will be simplistic. Evidence will be poorly linked to the answer. Frequent problems with structure and expression will be present.
Level 1 (1 - 4 marks)	Any suggestions made will be very generalised and lack detail and/or reasoning. Any discussion of impacts will be misguided. Poor or no evidence is given. The whole answer will be poorly organised and will have poor expression.



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