



**ADVANCED**  
**General Certificate of Education**  
**2016**

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**Geography**  
**Assessment Unit A2 1**  
*assessing*  
**Human Interactions and Global Issues**  
**[AG211]**  
**TUESDAY 17 MAY, AFTERNOON**

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**MARK**  
**SCHEME**

## MARK SCHEMES

### Foreword

#### Introduction

Mark Schemes are published to assist teachers and students in the preparation for examinations. Through the mark schemes teachers and students will be able to see what examiners are looking for in response to questions and exactly where the marks have been awarded. The publishing of the mark schemes may help to show that examiners are not concerned about finding out what a student does not know but rather with rewarding students for what they do know.

#### The Purpose of Mark Schemes

Examination papers are set and revised by teams of examiners and revisers appointed by the Council. The teams of examiners and revisers include experienced teachers who are familiar with the level and standards expected of 16- and 18-year-old students in schools and colleges. The job of the examiners is to set the questions and the mark schemes; and the job of the revisers is to review the questions and mark schemes commenting on a large range of issues about which they must be satisfied before the question papers and mark schemes are finalised.

The questions and mark schemes are developed in association with each other so that the issues of differentiation and positive achievement can be addressed right from the start. Mark schemes therefore are regarded as a part of an integral process which begins with the setting of questions and ends with the marking of the examination.

The main purpose of the mark scheme is to provide a uniform basis for the marking process so that all markers are following exactly the same instructions and making the same judgements in so far as this is possible. Before marking begins a standardising meeting is held where all the markers are briefed using the mark scheme and samples of the students' work in the form of scripts. Consideration is also given at this stage to any comments on the operational papers received from teachers and their organisations. During this meeting, and up to and including the end of the marking, there is provision for amendments to be made to the mark scheme. What is published represents this final form of the mark scheme.

It is important to recognise that in some cases there may well be other correct responses which are equally acceptable to those published: the mark scheme can only cover those responses which emerged in the examination. There may also be instances where certain judgements may have to be left to the experience of the examiner, for example, where there is no absolute correct response – all teachers will be familiar with making such judgements.

The Council hopes that the mark schemes will be viewed and used in a constructive way as a further support to the teaching and learning processes.

## Introductory Remarks

The assessment objectives (AOs) for this specification are listed below. Students must:

- AO1 demonstrate knowledge and understanding of the content, concepts and processes;
- AO2 analyse, interpret and evaluate geographical information, issues and viewpoints and apply understanding in unfamiliar contexts;
- AO3 select and use a variety of methods, skills and techniques (including the use of new technologies) to investigate questions and issues, reach conclusions and communicate findings.

## General Instructions for Markers

The main purpose of the mark scheme is to provide a uniform basis for the marking process so that all markers are following exactly the same instructions and making the same judgements so far as this is possible. Markers must apply the mark scheme in a consistent manner and to the standard agreed at the standardising meeting.

It is important to recognise that in some cases there may be other correct responses that are equally acceptable to those included in this mark scheme. There may be instances where certain judgements have to be left to the experience of the examiner, for example, where there is no absolute, correct answer.

Markers are advised that there is no correlation between length and quality of response. Candidates may provide a very concise answer that fully addresses the requirements of the question and is therefore worthy of full or almost full marks. Alternatively, a candidate may provide a very long answer which also addresses the requirements of the question and is equally worthy of full or almost full marks. It is important, therefore, not to be influenced by the length of the candidate's response but rather by the extent to which the requirements of the mark scheme have been met.

Some candidates may present answers in writing that is difficult to read. Markers should take time to establish what points are being expressed before deciding on a mark allocation. However, candidates should present answers which are legible and markers should not spend a disproportionate amount of time trying to decipher writing that is illegible.

## Levels of Response

For questions with an allocation of six or more marks three levels of response will be provided to help guide the marking process. General descriptions of the criteria governing levels of response mark schemes are set out on the next page. When deciding about the level of a response, a "best fit" approach should be taken. It will not be necessary for a response to meet the requirements of all the criteria within any given level for that level to be awarded. For example, a Level 3 response does not require all of the possible knowledge and understanding which might be realistically expected from an AS or AL candidate to be present in the answer.

Having decided that the level is, it is then important that a mark from within the range for that level, which accurately reflects the value of the candidate's answer, is awarded.

Knowledge and understanding	Skills	Quality of Written Communication	Level
The candidate will show a wide-ranging and accurate knowledge and a clear understanding of the concepts/ideas relevant to the question. All or most of the knowledge and understanding that can be expected is given.	The candidate will display a high level of ability through insightful analysis and interpretation of the resource material with little or no gaps, errors of misapprehensions. All that is significant is extracted from the resource material.	The candidate will express complex subject matter using an appropriate form and style of writing. Material included in the answers will be relevant and clearly organised. It will involve the use of specialist vocabulary and be written legibly and with few, if any, errors in spelling, punctuation and grammar.	3
The candidate will display an accurate to good knowledge and understanding of many of the relevant concepts/ ideas. Much of the body of knowledge that can be expected is given.	The candidate will display evidence of the ability to analyse and interpret the resource material but gaps, errors or misapprehensions may be in evidence.	The candidate will express ideas using an appropriate form and style of writing. Material included will be relevant and organised but arguments may stray from the main point. Some specialist terms will be used and there may be occasional errors in spelling, punctuation and grammar. Legibility is satisfactory.	2
The candidate will display some accurate knowledge and understanding but alongside errors and significant gaps. The relevance of the information to the question may be tenuous.	The candidate will be able to show only limited ability to analyse and interpret the resource material and gaps, errors of misapprehensions may be clearly evidenced.	The candidate will have a form and style of writing which is not fluent. Only relatively simple ideas can be dealt with competently. Material included may have dubious relevance. There will be noticeable errors in spelling, punctuation and grammar. Writing may be illegible in places.	1

## Section A

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## Option A: Impact of Population Change

- 1 (a) Push factors are those that tend to drive a person away from a place. They could be environmental, a response to a hazard of some sort or economic, a lack of opportunity in the current place of residence. Pull factors by contrast are those which attract a migrant to a potential destination. Candidates will presumably be aware of the pull of Europe, especially the UK, to migrants from Africa and parts of Asia and the lure of the USA for migrants from Latin America. Examples might be given but are not specifically required.

**Level 3 ([5]–[6])**

There is a good understanding of both pull and push factors. The factors are considered in reasonable balance. Examples might be seen to help deepen the discussion. The candidate demonstrates control of the material and has the appropriate language and terminology. A good **range** of factors is included.

**Level 2 ([3]–[4])**

Both push and pull factors are considered, but one set might be considered in less detail or with less command. The answer might lack some depth.

**Level 1 ([1]–[2])**

If only one of the two factors are considered, answers are confined to this level. Otherwise the candidate does not impress with their knowledge or command of the material.

[6]

- (b) (i) The description will only be brief but it must be reasonably complete. Things to note are the steady, dramatic fall in death rate, which is caused largely by the fall in deaths due to cardiovascular disease (Resource 1B). Other causes of death fall too, but decline less dramatically. Cancer remains reasonably steady regarding death rate but increases proportionately (Resource 1A). If no figures are used, maximum [2]. No explanation is needed here, just description. [3]
- (ii) We observe here what the article from which the figure was redrawn calls the 'leading edge' of the epidemiological transition. The death rate falls with by far the greatest contribution to the decline being due to the fall in cardiovascular causes. Cancer is reasonably steady but its proportional significance doubles because fewer people are dying of what have become more preventable and also curable cardiovascular diseases as treatments including surgical procedures have improved in MEDCs. This is just as the epidemiological transition model expects.

**Level 3 ([5]–[6])**

The candidate recognises the workings of the epidemiological transition and is able to detail its operation related to changes of causes of death in MEDCs. The answer is in detail and uses the appropriate terminology.

**Level 2 ([3]–[4])**

The epidemiological transition is discussed. There is an appreciation of change over time as medical conditions and treatments improve, but the depth necessary for Level 3 is not seen.

**Level 1 ([1]–[2])**

There may be no proper recognition that what is shown here is related to the epidemiological transition. Answers might be descriptive, repeating material from **1(b)(i)** rather than moving on to the required explanation. Answers might lack understanding or be unfinished. [6]

- (c) This is *implications* of migration, so an answer focussing on causes would not get out of Level 1. They have to look at service provision and social stability for both their case study of out-migration and that of in-migration, so there are four distinct activities. All four must be covered for Level 3 entry; if one is missing, Level 2 maximum; if more than one is missing, Level 1.

The details of their cases will depend on the examples chosen, but some general points might be expected.

Service provision: these can be of any types of service: retail, education, health, etc. Their study of out-migration might record areas put at strain because of low and falling demand, if private providers cannot make money they will close; public services might remain longer, if not for ever, to sustain the state's presence in the provision of education, for example. In-migration sees services have to cope with excess demand: too many people at the doctor's is an example often cited. And if the migrants are of a group which does not speak the local language that may bring added stress.

Social stability: if many people leave, the society left might well be put under stress from a lack of people to represent sports teams (the BBC had a programme looking at Achill Island's struggle to keep GAA teams going recently) to a lack of marriage partners and too few people to care for the elderly, etc. In-migration can cause social instability on political grounds from the rise of anti-immigration parties to actual outbreaks of violence between the indigenous and incomer communities. These are just examples, details will vary.

**Level 3 ([11]–[15])**

All four tasks are attempted, although it is not necessary that equal weight is given to them all. The level of detail from the two case studies is commendable and the answer has command of the topic, being set out using appropriate language and terminology

**Level 2 ([6]–[10])**

At least three of the four tasks are seen, which means that appropriate studies of both out-migration and in-migration are used. There is some detail in the answer, but the depth may be a little wanting.

**Level 1 ([1]–[5])**

Suboptimal routes into Level 1 were listed above. Answers might also be here because they are unfinished. Full answers in Level 1 will come from candidates who are unable to write coherently and/or in sufficient detail about the implications of out- and in-migration. [15]

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- 2 (a) Refugees tend to be groups pushed from a region en masse, perhaps by an environmental disaster or by violence. For example, at the time this mark scheme was first written (September 2014) major refugee movements had been caused by warfare in Afghanistan, Syria and South Sudan, with also minority groups being pushed out of parts of Iraq. Conditions at their place of origin have become unsupportable; members of society of both genders and all ages are affected. Asylum seekers may also have been pushed from their area of origin by threats relating to their ethnicity or political views for example, but the causes are more personal, they face a threat to themselves

if they stay; refugees leave because everybody in their community faces an insupportable situation. Spatially refugees tend to move to neighbouring countries or place where safety is likely; Pakistan houses 1.6 million refugees mainly from Afghanistan; most Syrian refugees are in Turkey, Lebanon, Jordan and Kuwait. By contrast asylum seekers often try and get to Europe or North America. Some will have been refugees who do not want to go back to their country; others have fled ethnic or political persecution in their home countries. Often they have made hazardous journeys to reach their MEDC goals. Refugees tend to be registered and cared for en masse; asylum seeking is a personal mission with destination countries making individual decisions.

(2 × [3]) Levels out of 6 if appropriate.

[6]

- (b) Malthus (1766–1834) was the person who earned economics its gloomy reputation with his *Essay on the Principle of Population* asserting that population growth would inevitably bring about positive checks such as war, famine and disease unless eased by preventative checks such as late marriage. The geometric possibilities of population growth would, he claimed, outstrip the arithmetic increases in food supply bringing forth a Malthusian disaster. The later Boserup (1910–1999), by contrast, especially in her *Conditions of Agricultural Growth*, argued that population determined agricultural methods; that necessity was the mother of invention. Her original theories regarding primitive agriculture were reframed in a more generalised way: humans as a resourceful and inventive species, would always find a method of coping with potential Malthusian crises.

### Level 3 ([7]–[9])

Both Malthus' and Boserup's theories are presented in good detail; the essential differences between them are made clearly in a way and with language that demonstrates the candidate's understanding of the topic.

### Level 2 ([4]–[6])

Malthus and Boserup both feature but perhaps one of them in less detail. There is sufficient material presented to enable the candidate to make a reasonable attempt at explaining the basic distinctions between the two if not in great detail.

### Level 1 ([1]–[3])

Either Malthus or Boserup are absent entirely or almost completely so. Whilst there might be some understanding of at least one of the scholars, the distinction between the two demanded in the question is insufficient to receive higher reward. There could be problems in language and also understanding.

[9]

- (c) The Resources show that over 60% of rural Chinese think it is important to have sons (2B); that the sex ratio of Chinese (and Indian) births is above the world average and this makes up most of the 'missing girls' (2C); whilst 2A is about an art installation that highlights these missing girls, personalised by the story of Huiyun. She was an unwanted girl, literally thrown in the garbage. They are given this information about gender imbalance as one impact of anti-natalist fertility policies. It must be brought into their answers; if it is not, confine to Level 1. Candidates then have to add to the implications. In the same vein they might bring up the social problems of gender imbalance such as there being many unmarried men with deleterious consequences for social stability from increased prostitution to extremes such as kidnapping. Answers should also make reference to other implications with reference to their case study. The details will vary with the study, but could include problems with a coercive policy such as



enforced sterilisations, an ageing population, labour force shortages, etc. There should also be an evaluation of the policy set out against the aims it sought to achieve. If their own material is absent, confine to Level 1. If their own case study is of a pro-natalist policy that is fine; they can contrast the implications.

### Level 3 ([11]–[15])

The answer is full; it has details from the Resources, together with a sound account of their own case study. There is proper focus on the impacts, with a range of issues brought up. The answer deals with what are sometimes challenging issues in a commanding way, using appropriate language and terminology.

### Level 2 ([6]–[10])

There is work on both their case study and the Resources and a range of impacts is considered. However this range may be partial and/or lacking in depth.

### Level 1 ([1]–[5])

Partial answers which must be confined to Level 1 were mentioned above. Otherwise there is a lack of focus and/or control; understanding may be weak or the answer be unfinished. [15]

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- 3 (a) Sustainability is sometimes a rather vague concept, easy to understand, perhaps, but difficult to quantify. The 'footprints' are one way in which numbers can be brought into the debate as they show just how far beyond the actual area of a settlement its footprint extends, just how much land and how many resources from beyond the settlement are needed to sustain it and what the impact of the settlement is on the environment. The two types of footprint to be described separately. If a candidate demonstrates knowledge that the carbon footprint is a more easily quantified subset of the urban ecological footprint that would be evidence of a high level of understanding. As to what they teach us, presumably the candidates will write about the generally unsustainable nature of modern living, whilst the footprints can also be instructive regarding comparisons over space and time.

### Level 3 ([5]–[6])

There is a sound understanding of the footprints concept and its contribution to the understanding of sustainability. The idea of quantification is mentioned. The answer uses appropriate language and terminology and does deal with the 'what they teach us' aspect. Both footprints need to be considered.

### Level 2 ([3]–[4])

Understanding of the footprints is shown though maybe not in particular depth. The candidate has some control of the material regarding the concepts and language, but might lack a little focus.

### Level 1 ([1]–[2])

Answers here will be those that do not demonstrate full understanding of the footprints issue. They might be short or unfinished or lack focus on the question set. [6]

- (b) Sir Terry Leahy's appearance on *Desert Island Discs* was rather controversial given his remarks that the decline of traditional city centres and local shops was a mark of progress. His role in this process as the boss of TESCO was highlighted. However, the article also had balance in that



opportunities for businesses on the High Street caused by the reduction in rents as a consequence of less demand was mentioned. The photograph indicates that the big supermarket and mall sites cater to customers who come by car. This has both environmental and social consequences. Environmental consequences might include loss of greenfield land to out of town centres, the pollution caused by people having to drive there and the waste of space given the decline of the old High Streets. Social issues include the reduction in opportunities for poor and elderly people who might lack the mobility to avail of the opportunities provided by the large supermarkets and out of town malls.

There must be use of the Resource to get beyond Level 1.

There must be use of their own material to get beyond Level 1

If either environmental or social consequences are omitted; Level 2 maximum.

### **Level 3 ([7]–[9])**

Social and environmental consequences of the retail competition are both mentioned in reasonable balance. There is some detail taken from the Resource and good use of material from outside the Resource. The answer focuses on the question and is couched in appropriate language and terminology.

### **Level 2 ([4]–[6])**

A good answer focusing solely on environmental or social issues can find a place at this level but both Resource use and their own material must be seen. The answer if full may lack some depth.

### **Level 1 ([1]–[3])**

Suboptimal routes to Level 1 were mentioned above. Otherwise there is some problem with regard to understanding, perhaps but not necessarily because the answer is short or unfinished. [9]

- (c) Candidates have to take any three of the list and describe and evaluate their case study city's policies. If only two are used, Level 2 maximum; if only one, Level 1.

If there is description but not evaluation, maximum Level 1.

- Integrated transport networks are systems that enable passengers to transfer readily between different modes of transport, getting on a local bus just outside the railway station for example.
- Traffic cells are systems of roads with limited entrances and exits.
- Parking policies are the systems put in place by the relevant authorities to enable people to park their cars. They might be designed to encourage people to bring their cars to a particular place or have quite the opposite intention depending on local circumstances.
- Pedestrianisation is a policy usually applied in city centres to prioritise the use of streets for pedestrians, although dependent upon local circumstances there might be systems to allow deliveries or other vehicular use.

### **Level 3 ([11]–[15])**

The answer is full with three issues properly described and evaluated. The urban case study is strong with good detail seen and evaluation shown. The language use is competent with appropriate terminology.

### **Level 2 ([6]–[10])**

At least two issues are dealt with in a decent fashion with reference to their urban case study. Depth may be wanting a little, particularly regarding evaluation.

**Level 1 ([1]–[5])**

From the suboptimal routes to Level 1, maybe only one issue is handled; more probably there is a lack of evaluation. Full answers here will be sketchy, the candidate betraying a lack of knowledge or command. [15]

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- 4 (a) Brownfield sites are those that have been used before in the urban area; the name chosen to contrast with greenfield sites. Often they can be former industrial sites and this can cause environmental problems in re-use if the site is polluted; the old Belfast gasworks site was a spectacular example of a polluted brownfield site, for example. There could be much expense as well as pollution caused by clearing a site. On the other hand re-using land can help reduce the need for greenfield sites. Brownfield sites being urban already do not require the building of much infrastructure. Re-use of sites, densifying the city, is efficient and environmentally sound, such redevelopments can also improve the look of a city by getting rid of eyesores.  
Answers that lack balance cannot get into Level 3.

**Level 3 ([5]–[6])**

The answer is full, both problems and benefits are discussed. Examples may be used to add depth but they are not an absolute requirement. The candidate demonstrates good understanding of the issue and answers using appropriate language and terminology.

**Level 2 ([3]–[4])**

A very good answer that lacks balance between problems and benefits but has no other problems can be rewarded by being here. Otherwise there is decent understanding of all the issues but the answer may lack depth.

**Level 1 ([1]–[2])**

Answers that deal with only one of problems and benefits are here together with those that lack understanding of the question through lack of completeness or coherence, [6]

- (b) This park in Rome, like any park, contributes to the broad nature of sustainability by its trees and plants that help with carbon issues and by providing an ecosystem for certain wildlife, the pigeons are certainly evident. It is shady and cool in the hot city with its fountain and feet washing area. It provides a place for social sustainability through its opportunities for recreation and relaxation in a broad sense from being a haven where people can sit and talk or work; take their lunch and their leisure. It is a place where the unemployed and the migrants have a right to be. Its transient population contributes to recycling. Also in their corner were the scary young men with their ill-controlled dogs, who were certainly not contributing to anything positive, indicating a negative side to the role of parks: unsavoury activities, littering and dog fouling. The picture also shows that the park is quite unkempt. The Resource is to help candidates, so they have to bring in their own material too. If they don't, Level 1; if they do not use the Resource at all, also Level 1.

**Level 3 ([7]–[9])**

The answer is full and detailed with observations from the Resource, negative as well as positive being bolstered by their own material, perhaps but not definitely relating to case studies. There is a focus on the issues of the question and the answer uses appropriate language and terminology.

**Level 2 ([4]–[6])**

Resource work is backed up by their own material. The answer has merit but not the depth required for higher reward, perhaps the negative issues of parks are not shown.

**Level 1 ([1]–[3])**

Partial answers are here; including those identified above. Full answers will be flawed with a lack of understanding evident. [9]

- (c) Sustainability as a concept used in its modern, popular way might be traced back to the Bruntland Commission and its famous phrase about sustainable development meeting ‘the needs of the present without compromising the ability of future generations to meet their own needs’. This has become associated with social and economic issues, too, as the specification reflects. More recently there has been a plea for cultural issues to be added to discussions of sustainability. So we seek material on how people live and make a living now and in the future in addition to thoughts on the environment.

If any one of social, economic and environmental is missed, Level 2 maximum.

If there is no reference to places for illustration, Level 1 maximum.

Multiple problems, Level 1 only.

If reference to only 1 place, max level 2.

**Level 3 ([11]–[15])**

The answer covers all aspects of the question and has plentiful spatial references. There is a sound understanding of the breadth of sustainable development and the answer shows command both of the topic and its terminology.

**Level 2 ([6]–[10])**

The answer may be unbalanced, but what is produced is sound and demonstrates a decent understanding of sustainable development if lacking somewhat in depth.

**Level 1 ([1]–[5])**

Multiple problems see an answer here, or maybe it will just be incomplete. Certainly it will lack proper understanding of the demands and the issues of the question. There may be problems with language and terminology. [15]

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## Option C: Issues in Ethnic Diversity

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- 5 (a) (i) The causes of ethnic conflict in Iraq from Resource 5 are:
- **sectarianism** between Sunni and Shia and/or IS and all other religious groups;
  - **unequal distribution of resources and political power** (Sunni claim they have been marginalised and not given control over their regions). [6]

Accept other causes as appropriate.

[1] for each correctly identified cause and out of [2] for a brief outline on how each cause has led to the present conflict. Brief answers only are required but make sure the answer is tied to the resource and not just a comment on the cause. In other words there must be resource use to gain the [2].

- (ii) **Ethnic cleansing:** IS have forcibly removed over 1.5 million people and massacred large numbers of minority groups of Yazidi and Christians in this ethnic conflict. This ethnic cleansing took place as IS want to establish control of an area with only their brand of Islam. All others are removed. This from the resource, they have to bring their own material (most likely an additional example) to explain why this frequently happens in conflict situations.

**Territorial division:** There is mention of demands for devolved power for the Kurdish population and their desire for more power and the map shows how territorial division along ethnic lines might occur in Iraq. The IS-controlled areas cross into Syria so in theory Syria is threatened by division as well. As above they need their own material here and this will most likely be another example.

- No extra material used, confine to Level 1.
- No use of Resource 5, confine to Level 1.
- Omitting either ethnic cleansing or territorial division from the resource, award from Level 2 maximum.
- Omitting either ethnic cleansing or territorial division completely, confine to Level 1.
- Multiple errors, confine to Level 1.

### Level 3 ([7]–[9])

This is a thorough answer that demonstrates sound understanding of how ethnic cleansing and territorial division result from ethnic conflict. The discussion is based around rigorous resource use and the extra material is well integrated into the answer. Use of English is very good.

### Level 2 ([4]–[6])

The suboptimal situation described above is here. Apart from this, answers at this level are still adequate but lacking some depth and detail. Resource use may be less rigorous, perhaps omitting reference to the maps. Alternatively, there is inadequate emphasis on why ethnic cleansing and territorial division occur. Use of English is quite good.

### Level 1 ([1]–[3])

Apart from the suboptimal situations described above, an answer at this level is seriously flawed by inaccuracies or irrelevant material. There may also be grammatical errors. [9]

- (b) There are several things to do here. They need to discuss primary and secondary factors. They need to evaluate their role in defining ethnicity and they need to use examples. The specification lists race, nationality, language, religion and perceived ethnic identity as primary factors and social status, residential concentration, age, gender and caste as secondary factors. There is no prescribed number of primary and secondary factors they have to use but they must choose more than 1 in each case.
- If they do not include evaluation in their answer and simply discuss primary and secondary factors award **from Level 2 maximum**.
  - If they only look at 1 primary and 1 secondary factor, confine to Level 1.
  - If they only look at primary or secondary factors, confine to Level 1.
  - No reference to places/multiple errors, confine to Level 1.
  - If reference to only 1 place, max level 2.

### Level 3 ([11]–[15])

There is good detail here. The candidate addresses all aspects of the question competently. The detail on primary and secondary factors is accurate, there is evaluation throughout, the examples used are relevant and the answer is written in good English.

### Level 2 ([6]–[10])

Apart from the situation described above, this is still a good answer and the candidate is still in control of the topic. The main reason for awarding from this level is lack of depth and/or detail. Use of English is still good.

### Level 1 ([1]–[5])

The suboptimal situation above is at this level. Otherwise, a **Level 1** answer will most likely be lacking in relevant accurate detail. There may also be grammatical errors.

[15]

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- 6 (a) (i) More than 600 000 white Britons have moved to a more white area between 2001–2011. The graph shows the percentage of meaningful interactions across ethnic groups which according to SIC is needed to end segregation. Whites have the smallest % of interactions, mixed racial groups appear less segregated. At least one set of figures should be used, e.g. white Londoners have only 37% of interactions with other ethnic groups whereas for Britain as a whole the figure is 53%. Significantly, the mixed group has the highest levels of meaningful interactions, whilst still showing London (83%) to be more segregated than Britain (91%).
- Possible reasons for this segregation include a desire to live close to those similar to us, shared cultures, safety, or fear of outsiders.

### Level 3 ([5]–[6])

Both resources are used well and a clear statement is made giving a valid reason for the high degree of segregation. The answer uses proper terminology and is well presented.

### Level 2 ([3]–[4])

Both resources are used if perhaps without proper balance. The reason is stated but may not be explained in great depth.

### Level 1 ([1]–[2])

Resource use may be inadequate in that one is missing. The reason may not be given or may be presented poorly. Understanding may be wanting.

[6]

- (ii) **Social outcomes:** increased isolation of ethnic minorities as white Britons move out. Social interaction is less frequent between different groups.

**Economic outcome:** lack of inward investment (economic), and increased social deprivation (social or economic). They have to use additional material and this will most likely be another example. Social and economic outcomes do overlap and we need to allow for this. However, they must address both social and economic outcomes.

- No extra material used, confine to Level 1.
- No use of Resource 6, confine to Level 1.
- Omitting either social or economic issues completely, confine to Level 1.
- Omitting either social/economic outcomes from the resource, award from Level 2 maximum.
- Multiple errors, confine to Level 1.

### Level 3 ([7]–[9])

This is a thorough answer that demonstrates sound understanding of one social and one economic outcomes of ethnic diversity in cities. The discussion is based around rigorous resource use and the extra material is well integrated into the answer. Use of English is very good.

### Level 2 ([4]–[6])

The suboptimal situation described above is here. Apart from this, answers at this level are still adequate but lacking some depth and detail. Resource use may be less rigorous or is inadequate. Use of English is quite good.

### Level 1 ([1]–[3])

Apart from the suboptimal situations described above, an answer at this level is seriously flawed by inaccuracies or irrelevant material. There may also be grammatical errors. [9]

- (b) The specification lists migration, colonisation and annexation as processes creating ethnic diversity. Obviously, the detail of their answer will depend on their case study choice. However, they will need to give a sound description of the ethnic diversity of their chosen country and then evaluate the role these processes played in creating this ethnic diversity. They need to address all of the three processes mentioned in the specification even if one process played no part in the ethnic make-up of their case study.

- If there is no case study and there is only a discussion of processes, then award out of **Level 1 maximum**.
- If the answer is at the wrong scale, confine to **Level 1**.
- If one process is omitted completely, award from **Level 2 maximum**.
- If there is no evaluation of the processes, award from **Level 2 maximum**.
- Multiple errors, confine to **Level 1**.

### Level 3 ([11]–[15])

The pattern of ethnic diversity is outlined clearly with facts and figures. There is good understanding shown. The processes are understood and there is depth, detail and the evaluation is clear. The answer is well written.

### Level 2 ([6]–[10])

Apart from the situations described above, there is less detail and depth throughout or the processes/discussion are handled less rigorously than at the previous level. English is still good.

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**Level 1 ([1]–[5])**

Apart from the situation described above, this answer is lacking in detail and depth on all aspects or there may be incorrect information. Use of English may be flawed.

[15]

**Section A****AVAILABLE  
MARKS**

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60



- 7 (a) The production of either ozone or PANS should be described. If only a simple statement/discussion referring to formation is given, a maximum of [2] may be awarded. Detailed, explicit and valid comments may be awarded a maximum of [4]. [4]

- (b) A clear description of an appropriate technique by which data collection was analysed/processed should be given, along with an explanation of how the outcomes assisted the understanding of air pollution. Material on data collection is not valid.

**Level 3 ([5]–[6])**

An appropriate method of data analysis/processing is described with a high level of detail. Strong, valid comment on the ways in which the outcomes assisted an understanding of air pollution is given. Terminology is good.

**Level 2 ([3]–[4])**

An appropriate method of data analysis/processing is described with some detail. Some comment on the ways in which the outcomes assisted an understanding of air pollution is given, although depth and detail may be restricted. Terminology may be restricted.

**Level 1 ([1]–[2])**

An inappropriate method of data analysis/processing may be described, or the comments presented may not relate to air pollution. Alternatively, an appropriate technique may be described in a cursory manner. Comment on the ways in which the outcomes assisted an understanding of air pollution may be absent, invalid, or cursory. [6]

- (c) The candidate is asked to describe the impacts of the air pollution within a small scale case study and evaluate attempts to manage its impacts.

**Level 3 ([14]–[20])**

Each element of the question (small scale case study detail; impacts; evaluation of management) is addressed. A high level of valid, relevant detail is given.

**Level 2 ([7]–[13])**

Although each element of the question (small scale case study detail; impacts; evaluation of management) is addressed, this may be in an unbalanced or underdeveloped manner. Details may be restricted.

**Level 1 ([1]–[6])**

Either each of the elements of the question (small scale case study detail; impacts; evaluation of management) may be addressed in a cursory manner only, or a number of elements neglected or mishandled. Details may be very restricted. [20]

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MARKS

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- 8 (a) Nuclear energy is of significant benefit in medical science. Medical applications include diagnosis (for example through radioactive tracers) and treatments such as radiotherapy. If only a simple statement/description is presented, or if only one valid medical application is given, a maximum of [2] may be awarded. Detailed, valid comments inclusive of more than one medical application may be awarded a maximum of [4]. [4]

- (b) A clear description of an appropriate technique by which data collection was analysed/processed should be given, along with an explanation of how the outcomes assisted the understanding of nuclear energy. Material on data collection is not valid.

**Level 3 ([5]–[6])**

An appropriate method of data analysis/processing is described with a high level of detail. Strong, valid comment on the ways in which the outcomes assisted an understanding of nuclear energy use is given. Terminology is good.

**Level 2 ([3]–[4])**

An appropriate method of data analysis/processing is described with some detail. Some comment on the ways in which the outcomes assisted an understanding of nuclear energy use is given, although depth and detail may be restricted. Terminology may be restricted.

**Level 1 ([1]–[2])**

An inappropriate method of data analysis/processing may be described, or the comments presented may not relate to nuclear energy. Alternatively, an appropriate technique may be described in a cursory manner. Comment on the ways in which the outcomes assisted an understanding of nuclear energy may be absent, invalid, or cursory. [6]

- (c) The candidate is asked to discuss the extent to which they agree with the given statement. Thus, reference to the statement is an integral expectation of the response. Reference to places within the British Isles should be made. If no reference to British Isles, max level 2.

**Level 3 ([14]–[20])**

Each element of the question is strongly addressed: clarification in relation to the statement; evidence; opinion; justification; strong, valid references to the British Isles. Comments are well-developed and with good use of terminology. A high level of detail is given.

**Level 2 ([7]–[13])**

At least 3 elements of the question are addressed (clarification in relation to the statement; evidence; opinion; justification; references to the British Isles) albeit, perhaps, in an unbalanced fashion. Comments may be underdeveloped and terminology/details may be restricted.

**Level 1 ([1]–[6])**

More than one element (clarification in relation to the statement; evidence; opinion; justification) may have been neglected. Comments may be cursory only, perhaps lacking validity or detail. Use of terminology may be poor. [20]

AVAILABLE  
MARKS

30

## Global Issues

AVAILABLE  
MARKS

- 9 (a) Changes in agriculture can lead to a reduction in biodiversity through the clearing of land, excessive water use, habitat destruction and the contamination of soil and water. Do not expect long answers but for full marks they should describe at least 2 changes and give some detail. If only 1 change is described, award no more than [2]. [4]

- (b) A clear description of an appropriate technique by which data collection was analysed/processed should be given, along with an explanation of how the outcomes assisted the understanding of agricultural change.

**Level 3 ([5]–[6])**

An appropriate method of data analysis/processing is described with a high level of detail. Strong, valid comment on the ways in which the outcomes assisted an understanding of agricultural change is given. Terminology is good.

**Level 2 ([3]–[4])**

An appropriate method of data analysis/processing is described with some detail. Some comment on the ways in which the outcomes assisted an understanding of agricultural change is given, although depth and detail may be restricted. Terminology may also be restricted.

**Level 1 ([1]–[2])**

An inappropriate method of data analysis/processing may be described, or the comments presented do not relate to agricultural change. Alternatively, an appropriate method may be described in a cursory manner. Comment on the ways in which the outcomes assisted an understanding of agricultural change may be absent, invalid or cursory. [6]

- (c) This is their chosen global issues case study. They need to use their material to answer the question set. Do not over reward a candidate who does not follow the exact requirements of the question. They will need to discuss GM crops and explain why some places are faced with increased food prices/shortages. They may call upon their studies of Boserup and Malthus here. Some of the points they might discuss include – the increase in land given over to biofuels, increase in demand for food supplies from emerging countries such as China and India, loss of cultivated land due to changes associated with global climate change and increased demand for food caused by growing world population. They then need to discuss how GM crops might ease this situation. They may discuss anything from higher yielding seeds to crops that have higher calorific value, specially adapted cereals which have shorter growing seasons, fruit and vegetables with longer shelf life, etc. They will also need to look at the evidence against the use of GM crops before finally deciding on the extent to which they agree with the statement in the question.

There are 4 things to do here:

- discuss how GM crops could help solve the growing food crisis;
- discuss the arguments against the use of GM crops;
- make reference to places; and
- reach a decision.

If one of these four is missing confine to Level 2

If two or more of the four are missing confine to Level 1.

**Level 3 ([14]–[20])**

At this level the candidate has provided a balanced answer. The issues of

increased food prices/shortages are discussed competently. The controversy surrounding GM crops is dealt with in a measured and informed manner. The candidate has facts and examples and these are used to good effect. The opposing issues are discussed thoroughly before a final decision is made regarding the statement given. The answer is well written using appropriate terminology and showing very good written communication skills

**Level 2 ([7]–[13])**

This is still a competent answer addressing all aspects of the question but the level of depth and detail is less than above. There may be fewer examples/reasons given for the increase in food prices/shortages or the role of GM crops is less well explained. Alternatively, the candidate may not have demonstrated adequate balance in reaching a decision on the statement. Nevertheless, there is still adequate understanding shown and the main difference between a Level 2 and a Level 3 answer is the depth and detail used. Quality of language is good.

**Level 1 ([1]–[6])**

At this level the answer is seriously flawed either in accuracy, depth and/or detail. The candidate does not fully grasp the topic. The answer is short showing only partial understanding or knowledge. Written English may be flawed.

[20]

AVAILABLE  
MARKS

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- 10 (a)** The nature of tourism change needs to be clarified – increase in numbers, new areas being developed etc. There is no requirement for examples, but many may use them. Possible points for discussion include competition for scarce water resources between tourist resorts and local people, tribal peoples moved off their land to make way for tourist development. Long answers are not required, rather look for a clear understanding of how this competition may arise.  
If the answer is not clear on the nature of change award out of [2] maximum. [4]
- (b)** A clear description of an appropriate technique by which data collection was analysed/processed should be given, along with an explanation of how the outcomes assisted the understanding of tourism and its management.

**Level 3 ([5]–[6])**

An appropriate method of data analysis/processing is described with a high level of detail. Strong, valid comment on the ways in which the outcomes assisted an understanding of tourism and its management is given. Terminology is good.

**Level 2 ([3]–[4])**

An appropriate method of data analysis/processing is described with some detail. Some comment on the ways in which the outcomes assisted an understanding of tourism and its management is given, although depth and detail may be restricted. Terminology may also be restricted.

**Level 1 ([1]–[2])**

An inappropriate method of data analysis/processing may be described, or the comments presented do not relate to change. Alternatively, an appropriate method may be described in a cursory manner. Comment on the ways in which the outcomes assisted an understanding of tourism and its management may be absent, invalid or cursory. [6]

- (c)** This is their chosen global issues debate. They need to use their material to answer the question set. Do not over reward a candidate who does not follow the exact requirements of the question. They will need to discuss ecotourism and examine the issues that can arise in some areas. They might mention damage to sensitive environments, leakage of tourist revenue out of the region and the threat of forced removal of tribal groups from their traditional homelands as well as the issue of 'greenwashing'. They need to discuss how internationally agreed controls might alleviate some of these problems before making a decision relative to the statement. They will need to make reference to actual examples of places to support their answer. This must be more than simply name-dropping of places. They need evidence from places in some detail.

There are 4 things to do here:

- discuss the issues surrounding ecotourism;
- discuss how internationally agreed controls might reduce these issues;
- make reference to places; and
- reach a decision.

If one of these four is missing confine to **Level 2**

If two or more of the four are missing confine to **Level 1**.

**Level 3 ([14]–[20])**

At this level the candidate has provided a balanced answer. The issues surrounding ecotourism are discussed competently. The candidate has facts

and examples and these are used to good effect. There is detailed reference to places. The opposing issues are discussed thoroughly before a final decision is made regarding the statement given. The answer is well written using appropriate terminology and showing very good written communication skills.

### **Level 2 ([7]–[13])**

Apart from the situation above this is still a competent answer addressing all aspects of the question but the level of depth and detail is less than above. There may be fewer examples or the candidate may not have demonstrated adequate balance in reaching a decision on the statement. There are references to places but there is less detail than at the previous level. Nevertheless, there is still adequate understanding shown and the main difference between a Level 2 and a Level 3 answer is the depth and detail used. Quality of language is good.

### **Level 1 ([1]–[6])**

Apart from the situation above an answer at this level is seriously flawed either in accuracy, depth and or detail. The candidate is not in control of the topic. The answer is short showing only partial understanding or knowledge. Written English may be flawed. [20]

**Section B**

**Total**

**AVAILABLE  
MARKS**

30

30

90