GCE MARKING SCHEME

SUMMER 2016

GEOGRAPHY
G2 – CHANGING HUMAN ENVIRONMENTS
1202/01

INTRODUCTION

This marking scheme was used by WJEC for the 2016 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was 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 conference was to ensure that the marking scheme was 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' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

GEOGRAPHY

The Assessment of Quality of Written Communication at AS

Opportunities for assessment of quality of written communication are found within each of the Assessment Objectives and thus within all questions that demand continuous prose that are marked out of ten.

For each of the ten mark questions in G1 and G2, the following criteria for quality of written communication should be applied to the levels of assessment.

Mark Band Criteria for the Assessment of Quality of Written Communication for 10 mark questions at AS.

Level 3	• Information is organised clearly and coherently and arguments are logically developed and tightly structured. • Candidate writes in continuous prose using relevant and accurate geographical vocabulary. • There are relatively few errors of spelling, punctuation and grammar.
Level 2	• Information is relatively clear but points and arguments are not always direct or logically developed. • The use of geographical vocabulary is variable and prose style may lack precision or accuracy. • There are some errors of spelling, punctuation and grammar that may make the meaning unclear.
Level 1	• Information is randomly organised and lacks clarity. • Statements are brief and bald and the language is simplistic with limited use of geographical vocabulary. • Spelling, punctuation and grammar are weak with errors that may be intrusive.

Geography - G2

	Knowledge and Understanding	Application	Skills	Total	Key Question
Question 1					
(a)		**2**	**3**	**5**	**1.3**
(b)	**8**	**2**		**10**	**1.3/4**
(c)	**7**	**3**		**10**	**1.2**
	15	**7**	**3**	**25**	
Question 2					
(a)		**2**	**3**	**5**	**2.4**
(b)	**8**	**2**		**10**	**2.3/4**
(c)	**7**	**3**		**10**	**2.5**
	15	**7**	**3**	**25**	
Question 3					
(a)			**7**	**7**	
(b)	**4**	**4**		**8**	
(c)	**2**		**8**	**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.

GCE GEOGRAPHY G2

MARK SCHEME

SUMMER 2016

Q.1 (a) Use *Figure 1* to describe changes in the mean centre of population for the USA.

[5]

Allow 1 mark for a comment about changes in the mean centre of population with a further 1 mark for information from the resource to support that comment up to a maximum of 5 marks. If no explicit description of change/movement is mentioned then maximum 3 marks.

Suggested responses

- There has been a gradual movement of the mean population centre to the west (1 mark).
- The westerly mean centre movement has taken 220 years (2 marks).
- The coloured (brownish) area on the map shows the region within which the movement of the mean population centre has moved in an east to west direction (2 marks).
- In 220 years the mean centre of population has moved approximately 1500 km to the west (6.5km a year, 65km a decade) (2 marks).
- In 1790 the mean centre of population was in the State of Maryland, in 2010 it was in the State of Missouri (2 marks).
- The mean centre of population has moved through eight States to rest in Missouri in 2010 (2 marks).
- The most rapid movement of the mean population centre was between 1850 and 1860, approximately 125km to the west within West Virginia (3 marks).
- The westerly movement of the mean centre of population stagnated in Indiana in the late nineteenth and early twentieth centuries when, within a 50 year period, the mean centre of population only moved approximately 175km, so only 35km every 10 years (5 marks).
- From 1950 a more steady progress westward is seen at approximately 70km every 10 years through Illinois and into Missouri (3 marks).
- Although the mean centre has moved west, in 2010 it was still in the eastern portion of the USA (2 marks).

(b) Outline how the population characteristics of an area may be changed by migration. [10]

Population characteristics may include:

Demographic

- Total numbers of people that may either increase or decrease due to changes in birth rate, death rate and/or migration, which may lead to over or under population.
- The gender ratio: where a migration is dominated by either male (construction workers from India to Dubai) or females (Philippine females out migrating to MEDCs).
- Age: such as retirement migration.
- Ethnic components of a population.

Social

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

Distinct changes in demographic characteristics need to be described with elaborative detail from migration case studies. A single migration or a multitude of migrations may be used.

Other aspects of migration characteristics, such as economic and environmental, should be credited fully if a connection with demographic change has been made. If no link to population characteristics has been made then limit to maximum of 5 marks.

Level 3: 8-10 marks	Good knowledge and understanding of how population characteristics are changed by migration. Good development of example(s).
Level 2: 4-7 marks	Some knowledge and understanding of how population characteristics are changed by migration. Example(s) are evident and enhance the outline.
Level 1: 0-3 marks	Basic knowledge and understanding of how population characteristics are changed by migration. Little use of example(s).

(c) Describe and explain differences in life expectancy between countries or regions. [10]

Any scale of exemplification is acceptable from entire country examples to regional differences between rural and urban and local differences between post codes.

Some examples of life expectancies from http://prb.org data sheet 2015.

Region	Both sexes	Male	Female
World	71	69	73
Developed regions	79	76	82
Less developed regions	68	66	70
Least developed regions	62	60	63
Lesotho	44	43	46
Mali	53	53	53
Brazil	75	71	79
China	75	73	78
UK	81	79	83
Switzerland	83	81	85
Japan	83	80	87

Life expectancy is relatively low in stages 1/2/3 of the demographic transition in least and less developed countries/regions for reasons including:

- AIDS, especially in southern Africa
- Lack of medical care
- Poor nutritional standards
- Polluted water
- Drought, famine, wars

Life expectancy is relatively high in stages 4/5 of the demographic transition in developed countries/regions for reasons including:

- Medical advancement
- Good dietary education and information
- Ability to better control environmental extremes.

However, in MEDCs many are dying earlier than expected due to lifestyle factors such as:

- Obesity caused by ill-advised diet choice and lack of exercise (heart attacks)
- Sedentary occupations, lack of exercise (heart attacks)
- Personal abuse: drugs, alcohol, smoking (cancer)
- Unprotected sex (STDs, AIDS).
- Suicides
- Murders
- Industrial accidents and road deaths.

Full marks can be achieved without reference to any gender differences in life expectancy, however, answers could include gender difference in life expectancies.

Do not credit inverse comments generously such as *poor* medical resources for low life expectancy and *good* medical resources for high life expectancy; credit more highly the qualifications and exemplars which justify those general statements.

Level 3: 8-10 marks	Good knowledge and understanding used to explain differences in life expectancy between countries and/or regions. Good development of examples.
Level 2: 4-7 marks	Some knowledge and understanding used to explain differences in life expectancy between countries and/or regions. Description dominates. Examples are evident.
Level 1: 0-3 marks	Basic knowledge and understanding used to explain differences in life expectancy between countries and/or regions. Mainly descriptive. Little use of examples.

Q.2 (a) Use *Figure 2* to describe the variety of land uses and their locations. **[5]**

Allow 1 mark for a comment about a land use with a further 1 mark for information from the resource to support the location of that land use up to a maximum of 5 marks. Maximum mark of 3 for land uses only with no reference to locations.

Suggested responses

- The skyscrapers would indicate a Central Business District (2 mark).
- To the right foreground is probably an office block. (2 marks).
- Some skyscrapers could be hotels or apartments particularly if they have balconies like the Meriton building in the right of centre foreground (3 marks).
- Fewer tall buildings occupy the land in the immediate foreground (2 marks).
- Roads between the tall buildings appear very narrow and have a grid-iron pattern (2 marks).
- To the left foreground is a city centre park (2 marks).
- The park is quite thickly wooded with deciduous trees (2 marks).
- In the foreground to the bottom left a road is visible dissecting the park land (2 marks).
- There appears to be a monument towards the back of the park just in front of two tower blocks which could be residential (3 marks).
- In the background to the left, low rise buildings dominate land use with large green spaces, possibly parks, and quite a lot of trees mixed with buildings (3 marks).
- In the background to the right, extensive low rise buildings appear which may be retail or warehouse distribution centres (2 marks).

(b) Describe one regeneration scheme in an inner city or CBD and evaluate its success. **[10]**

Schemes could encompass: redevelopment, renovation, gentrification, regeneration, renewal and involve any scheme within the central core of an urban area which changes the existing land use in a way that reinvigorates the use of that land.

Responses should give a description of a scheme with relevant information of location and the developments which have occurred.

The success could be the personal opinion of the candidate or differing views and attitudes of interested parties such as the original local residents, the local council, an environmental group, pensioners, the government. Success may be perceived to be entirely positive or negative or a mixture, but the changes are unlikely to be welcomed by all interested parties.

If an obvious suburban, fringe or rural scheme is used, then a Level 1 mark can only be achieved. Schemes which are planned or in the process of being completed cannot be judged on their success so cannot achieve a Level 3 mark. If more than one scheme is included then consider all the answer then award marks for the better answered scheme.

Level 3: 8-10 marks	Good knowledge and understanding of one regeneration scheme in an inner city or CBD. Well balanced between descriptive information of a case study and a good range of comments (evaluation) on its success. Good development of an example.
Level 2: 4-7 marks	**Either:** some knowledge and understanding of one regeneration scheme in an inner city or CBD (named). **Or:** imbalance, as expansive description or evaluation dominates. Evaluation is marginal. An example is evident.
Level 1: 0-3 marks	Basic knowledge and understanding of one regeneration scheme in an inner city or CBD. No attempt at evaluation, only description offered. Little use of an example.

(c) Identify and explain the pressures on green belts. [10]

There are at least two ways green belts can be viewed: *Statutory Green Belts* established by planning authorities and *green belts* used as a generalised term simply referring to open countryside surrounding any substantial built-up area. The term rural-urban fringe could be synonymous with green belt. A *zone of farmland, parks, and open country surrounding a town or city is usually officially designated as such and preserved from urban development.*
Identifying the pressures

The overriding pressures on green belt is from the development of the rural land for a land use that is more associated with urban living or is used by a growing urban population. There are thus development pressures from, for example, housing, retail, transport, leisure and recreation functions such as sewage works, park and ride, hospitals and airports to support urban areas. All such development threatens the existing rural landscape and way of life.

Some reasons for pressures on green belt land.

- *Advancements in physical communications*, i.e. motorway construction and outer ring roads making the green belt more accessible, thus increasing pressure for development.
- *The increase in personal mobility*, i.e. more cars allows more flexibility in personal communication this making any development in the green belt much more accessible than previously.
- *Tele-communications*, mobiles, fax and broadband allow people and businesses to locate in more remote locations so more jobs are available in the green belt.
- *The perception* of a low crime rate, low levels of noise and other atmospheric, land and water pollution; of schools which are full of bright, obedient children; of road traffic which is less frequent. Such perceptions increase the pressure for people to leave the urban area for a more rural environment. (Often, however, such perceptions, about life in the green belt, turn out to be perceptions).
- *Cheaper land*, so bigger houses are affordable (**not cheaper houses**) is a reason for pressure to develop green belt land.
- *More disposable income* has enabled people to afford to purchase relatively expensive rural housing.
- *Park and ride* car parks are established in the green belt encouraging even more pressure for change.
- *Businesses* (retail, warehouse/distribution, cinemas, golf courses, sports stadia and tourism/leisure centres) wish to counter-urbanise and to occupy green belt positions as green belt developments gradually occur to feed off the increasing market generated in the green belt (the snowball effect).
- *Decline in agricultural land use* as food production has become more efficient and cheaper food supplies are accessed elsewhere, so there is an incentive to sell agricultural land for development.

Negative aspects of living in an urban area also increase pressures in the green belt by encouraging urban to rural migration (counter-urbanisation).

- Noisy, smelly, polluted, derelict areas, particularly in some inner city locations.
- Fear of crime and vandalism.
- Graffiti prone areas where drugs and prostitution may upset the local community.
- An influx of a different cultural group into the neighbourhood.
- The closure of businesses, hence the loss of a job, so a new start is required.

The designation of a Statutory Green Belt increases the pressure within it as stricter planning rules apply suppressing developments which are impatient to occur.

Answers could incorporate one or more specific case studies of green belt development as exemplification.

Level 3: 8-10 marks	Good knowledge and understanding in order to identify and explain the pressures on green belts. Good development of example(s).
Level 2: 4-7 marks	**Either:** some knowledge and understanding in order to identify and explain the pressures on green belts. **Or:** imbalance between identification and explanation. Description of developments dominates. Example(s) are evident.
Level 1: 0-3 marks	Basic knowledge and understanding in order to identify or explain the pressures on green belts. Predominantly description of developments. Little use of example(s).

Q.3 (a) Use *Figure 3* to contrast the land uses shown in grid square A (4988) with those shown in grid square B (4987). [7]

Suggested responses

- Square A is predominantly urban in **contrast** to square B which is predominantly rural.
- Square A has part of the town centre of Newport in the NE corner, containing a bus station at 499890, in **contrast** to square B which has no evidence of a communications hub.
- In the NE of Square A, buildings, perhaps predominantly terraced housing, are densely packed. The roads are straight with a grid-iron pattern in **contrast** to square B, as in the NE of this square the houses are (semi)detached with large gardens and are not terraced.
- Within square A are some B class roads, the one travelling from NE to SW leads to and from the town centre. The roads in the square B are unclassified such as Nunnery Lane and Watergate Road, this road travels N to S on the eastern edge of the square. So the **contrast** is that Square A contains B classified roads whilst square B doesn't.
- In the centre of square A is a school with perhaps a playing field which is about 200 metres by 200 metres. The playing field is surrounded by straight roads, with perhaps terraced housing. The **contrast i**s simply that these typical urban land uses are not found in square B.
- Square A contains a recreation ground in the NW corner (491888) in **contrast** to square B where no recreation ground is labelled.
- In the south of square A a steep hill (Mount Joy) halts urban development; a footpath leads to the top of the hill. In **contrast,** in square B, although the footpath continues to the foot of the hill in a SW direction next to a cemetery, the hill descends to farmland with a disused pit at 498879.
- Both square A and B have the same cemetery located between the squares in the SW of square A and the NW of square B, the **contrast** is that a larger proportion of the cemetery appears in square B.
- SE of the grid square B is a large house in its own grounds, New Close House, and a few 10s of metres to the south is Watergate Farm. The **contrast** is that these typical rural land uses are not found in square A.

A simple recognition that square A is predominantly **urban** whereas square B is predominantly **rural** is sufficient contrast to unlock Level 3 assuming this statement is qualified by evidence from the resource.

Grid references are credit worthy, but not compulsory, to achieve Level three

Level 3: 6-7 marks	Developed contrasts in the land uses shown in grid square A (4988) with those shown in grid square B (4987) with specific evidence from the resource.
Level 2: 3-5 marks	Some description of land uses shown in grid square A (4988) and those shown in grid square B (4987) with some specific evidence from the resource. Contrast is limited or not recognised.
Level 1: 0-2 marks	Basic description of the land uses shown in grid square A (4988) and those shown in grid square B (4987) with limited specific evidence from the resource.

(b) Outline *two* additional pieces of information that could be collected to further understand the human geography of the area shown in *Figure 3.* **[8]**

Information could be primary, personally collected from surveys and/or interviews, or **raw data** researched from the internet or from other sources such as schools, libraries and newspapers. Such information then needs refining and processing before being presented, analysed and interpreted. Secondary information is found from other people's work within articles, graphical and cartographical displays. Such information can be readjusted and modified, but the final written report relies heavily on the initial research of other people.

The essential focus of the question is an **outline** ("*a brief summary of the main characteristics")* of two pieces of information. The focus of the answer needs to concentrate on **describing** the additional pieces of information. The **source** of information has some relevance as context, as this is a characteristic of the information. The focus of the question is **not** how the information may be collected or how the information may be used. Some collection and use of information could be useful as elaborative context and should be credited.

For example, a land-use survey of the main shopping streets of Newport may reveal much linked information on the state of the local retail economy. Information that could be collected might include: the total number of retail outlets; the total number of service outlets such as betting shops; a classification of such outlets would reveal the business types, such as the number of variety stores and grocery stores; a nearest neighbour technique may be useful to gather information about clustering; information could be gathered on people's views of town centre retailing, revealing transport issues of accessibility; the competition faced by the town centre shops from out of town, other towns and the internet; the range of goods and services typically purchased; the sphere of influence. There are other aspects of town centre surveys that may yield useful information that could be collected to further understand the human geography of the area shown in Figure 3.

Some suggestions of information that may be collected follow. Such suggestions are not exhaustive and credit should be given for relevant ideas not included in the examples below.
In order to achieve a Level 3 mark answers should link and relate information to specific locations shown in Figure 3.
If purely physical geography information is collected with no linkage as to the relevance of the information to human geography, then only a Level 1 mark is achievable.

- Demographic statistics to show historical changes in births, deaths, gender, age and migration information for wards in Newport and/or villages such as Whitecroft (495861).
- Urban and/or rural settlement information from questionnaires or environmental quality surveys. Dependent upon the focus of surveys, such information may provide a deeper insight into shopping and commuting habits, population structure age and gender, pollution, age of buildings and upkeep of buildings. Such information could form the basis of a comparative village study between Whitecroft 495861 and Blackwater (506862).

- Information on the use of the recreation ground at 491888. Such information may reveal the usage pattern and inform management decisions.
- Political data about voting intensions may be useful to compare the urban area of Newport with its more rural surroundings.
- Housing contrasts between the inner city of Newport and the suburb of Barton.
- Information from a shop survey in the centre of Newport to judge economic well being.
- Transport census information regarding the usage of urban (Newport), suburb (Hunny Hill 4989) and rural roads (Froglands Lane 4887) by different types of vehicles at different times of the day, month, years.
- Land use transect information from the centre of Newport out through the suburbs to the countryside to judge land use variation perceptions.
- Ecosystem information in order to discover organic life that may need protection from human developments in, for example, the aquatic ecosystem of the lake at Clatterford (483879).
- Meteorological information that would perhaps historically show trends and/ or extreme weather events and may be useful for future agricultural development for the several farms shown in the south of the map extract: e.g. Paradise Farm (501864).
- Precipitation information to aid any flooding and river regime information for Newport's river.
- Soil/geological information and the impact on farming for Froglands Farm (482872).

Mapping and photographic images as a category of information could be very useful for many of the above suggestions.

- OS maps at other scales than 1:25 000 providing a more detailed, but smaller area, or a less detailed, but wider area.
- Aerial photography based information from, for example, Google Earth
- Satellite images.
- Google Streetmap.
- Other map providers on the internet such as Google, Multimap, Streetmap and MapQuest.
- Official land use mapping by companies (Goad), government agencies (Environment Agency) and local councils.

Level 3: 7-8 marks	Good knowledge and understanding used to outline two additional pieces of information that could be collected to further understand the human geography of the area shown in Figure 3. References to locations within Figure 3 are made.
Level 2: 4-6 marks	Some knowledge and understanding used to outline two additional pieces of information that could be collected to further understand the human geography of the area shown in Figure 3. Lacks direct references to Figure 3. Or develops only one good piece of information very well.
Level 1: 0-3 marks	Basic knowledge and understanding used to outline two additional pieces of information that could be collected to further understand the human geography of the area shown in Figure 3. Only physical geography information is provided.

(c) Evaluate how you presented the information collected for your investigation into a changing human environment. [10]

You should state clearly the question that you have investigated.

The information collected may be presented in one or more ways.

An evaluation, i.e. "*to give an overall statement of value*" of the way in which information is presented, is required. To comprehensively achieve this, the way in which information is presented needs to be stated, and demonstrated with some description, perhaps with an illustration. Only then would any statement of value be meaningful to the reader. Is this way of presenting a good one? If so why? Does it have its limitations? Would another method be equally valid or better?

The information collected may be presented in a variety of ways. Answers may vary in depth and breadth. The type of information to be presented may comprise: statistical, graphical, photographic, cartographic, tabular, images/sketches, literate (please refer to page 16 of the specification for an outline of the information that may be collected and presented). Please note, a PowerPoint presentation of the collected information is relevant, in which case each slide in the PowerPoint simply represents what could otherwise be presented as a page in a hard copy written report. So for a full answer the information presented within the PowerPoint slides needs to be treated exactly the same as if the slides were printed out and presented as hard copy.

Marking will depend on the quality of response and must be adjusted to suit individual studies presented.

Credit highly any valuable, positive and geographically appropriate comments within the context of a valid geographical enquiry. Examples of ways of presenting information must be within the locational aims/objectives of a research enquiry stated within the answer to achieve a Level 3 mark.

Credit with caution simplistic, self-evident, generalised and vague comments.

Level 3: 8-10 marks	Good evaluation with competent description of one or more ways of presenting the information collected. Good development using the context of the investigation.
Level 2: 4-7 marks	Some evaluation with some description of one or more ways of presenting the information collected. Some imbalance between evaluation and description. Some development using the context of the investigation.
Level 1: 0-3 marks	No evaluation of ways of presenting the information collected. Basic description of one or more ways of presenting information. Generic and generalised concepts of information presentation.