



GCSE GEOGRAPHY

PAPER 2 CHALLENGES IN THE HUMAN ENVIRONMENT

Mark scheme

Additional Specimen

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

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

Further copies of this mark scheme are available from aga.org.uk

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly Level 2 with a small amount of Level 3 material it would be placed in Level 2 but be awarded a mark near the top of the level because of the Level 3 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

Assessment of spelling, punctuation and grammar (SPaG)

Accuracy of spelling, punctuation, grammar and the use of specialist terminology will be assessed via the indicated 9 mark questions. In each of these questions, 3 marks are allocated for SPaG as follows:

- **High performance** 3 marks
- Intermediate performance 2 marks
- Threshold performance 1 mark

Q	Part	Marking guidance	Total marks
Questic	n 1 U	rban issues and challenges	
01	1	1 mark – one point accurately marked and line completed OR both points accurately marked but no line. 2 marks – both points accurately marked and line completed. AO4 = 2 marks	2
01	2	2.8 billion (must have billion) AO4 = 1 mark	1
01	3	 Individual points – 1 mark (2 x 1) OR developed point – 2 marks. Ideas might include: many cities in LICs/NEEs are growing rapidly because of high levels of migration from the countryside to the cities (rural-urban migration) (1). This is mainly due to the opportunities for a higher standard of living/food security/health/education in urban areas (pull factors)(1) many megacities are major centres of economic activity, including manufacturing industries and services (1), so they attract large numbers of people looking for work often from rural areas, causing the city to grow faster (1) push factors such as rural unemployment and poor access to services drives people into larger cities in LICs and NEEs (1) people who migrate to towns and cities tend to be young and so have higher birth rates in that age range (1) no credit for description of pattern of megacities. AO3 = 2 marks 	2
01	4	5665 AO4 = 1 mark	1
01	5	A (2 km) AO4 = 1 mark	1

01	6	Individual points – 1 mark (2 x 1) OR developed point – 2 marks.	2
		Ideas might include: quicker way into the city; less stressful; no parking worries; get right into city centre; cheaper. All of which would encourage people to use the bus service so there would be fewer cars and consequently less traffic congestion. AO3 = 2 marks	

01	7				6
01	'	Level	Marks	Description	
		3	5–6	AO3 Demonstrates thorough application of	
		(Detailed)		knowledge and understanding in interpreting	
				geographical information and giving detailed	
				explanation of how urban regeneration projects	
				can reduce levels of urban deprivation.	
				'	
				AO3 Makes full analysis of the resource, using	
				evidence to support the response.	
		2	3–4	AO1 Demonstrates clear knowledge of how	
		(Clear)		urban regeneration projects can reduce levels	
		(0.00.7)		of urban deprivation.	
				or arban deprivation.	
				AO2 Shows some geographical understanding	
				of the effectiveness of an urban regeneration	
				project in reducing levels of urban deprivation.	
		1	1–2	AO1 Demonstrates limited knowledge of how	
			1-2		
		(Basic)		urban regeneration projects can reduce levels	
				of urban deprivation.	
				ACC Chave limited as a graphical understanding	
				AO2 Shows limited geographical understanding	
				of how urban regeneration projects can reduce	
				levels of urban deprivation.	
			0	No relevant content.	
		Indiantiva	ntont		
		Indicative co	mem		
		• Own	knowled	ge can be based on an example or an	
				g of deprivation.	
				ration projects can be seen at any scale and can	
			_	the context of other urban projects (eco projects/	
				ban development, etc).	
				ation can be considered in relation to socio-	
				l environmental conditions.	
			• .	rivation can be seen as improving conditions.	
			•	evels it is expected that students will show an	
		• •		of specific deprivation indicators and suggest how	
		reger	neration p	projects will improve these.	
				0 1 100 0 1	
		AO1 = 2 mai	rks, AO2	= 2 marks, AO3 = 2 marks	

	_				
01	8	Level	Marks	Description	6
		3 (Detailed)	5–6	AO3 Demonstrates thorough application of knowledge and understanding in interpreting geographical information and giving detailed explanation of how the features of the Greenhouse Development make for sustainable urban living. AO3 Makes full analysis of the resource, using evidence to support the response.	
				evidence to support the response.	
		2 (Clear)	3–4	AO1 Demonstrates clear knowledge of the features that make for sustainable urban living.	
				AO2 Shows some geographical understanding of how particular features of urban development will make for sustainable urban living.	
		1 (Basic)	1–2	AO1 Demonstrates limited knowledge of the features that make for sustainable urban living.	
				AO2 Shows limited geographical understanding of how particular features of urban development will make for sustainable urban living.	
			0	No relevant content.	
		Indicative co	ntent		
		 There be courban Figur of sure of su	e are a no onsidered on areas. The 4 highl stainabilitients can ducing off eveloping the higher I asing aw eating sus retanding rtant. Evel 3 an onmenta	show evidence of their own knowledge by her aspects of sustainable urban management or the ideas expressed on Figure 4. evels it is expected that students will show an areness of why the identified factors are important stainable urban areas, consequently, an g of "sustainable" in the context of urban areas is appreciation of 'sustainable' which goes beyond I factors should be expected.	
		AO1 = 2 ma	arks, AO2	2 = 2 marks, AO3 = 2 marks	

01	9		Ī		9
"		Level	Marks	Description	9
		3 (Detailed)	7–9	AO1 Demonstrates detailed knowledge of urban planning strategies and how they can improve the quality of life for the urban poor in a LIC or NEE.	
				AO2 Shows thorough geographical understanding of how urban planning strategies can improve the quality of life for the urban poor in a LIC or NEE.	
			4.0	AO3 Demonstrates sound application of knowledge and understanding in a reasoned way in evaluating the effectiveness of planning strategies in helping to improve the quality of life for the urban poor in a LIC or NEE.	
		2 (Clear)	4–6	AO1 Demonstrates clear knowledge of urban planning strategies and how they can improve the quality of life for the urban poor in a LIC or NEE.	
				AO2 Shows some geographical understanding of how urban planning strategies can improve the quality of life for the urban poor in a LIC or NEE.	
				AO3 Demonstrates some application of knowledge and understanding in evaluating the effectiveness of planning strategies in helping to improve the quality of life for the urban poor in a LIC or NEE.	
		1 (Basic)	1–3	AO1 Demonstrates limited knowledge of urban planning strategies and how they can improve the quality of life for the urban poor in a LIC or NEE.	
				AO2 Shows limited geographical understanding of how urban planning strategies can improve the quality of life for the urban poor in a LIC or NEE.	
				AO3 Demonstrates limited application of knowledge and understanding and makes a simple evaluative statements about the effectiveness of planning strategies in helping to improve the quality of life for the urban poor in a LIC or NEE.	
			0	No relevant content.	

- Example must be drawn from a lower income country or a newly emerging economy.
- The term 'urban planning strategy' can be interpreted in the broadest sense and include local government schemes, selfhelp schemes and NGO schemes.
- Strategies can be holistic and include a number of socioeconomic and environmental elements or be focused on particular elements of improvement, for example community development schemes or housing improvement schemes, water/sanitation improvement schemes.
- 'Evaluate the effectiveness' implies an understanding of what the conditions were like before and a judgement about the extent to which the conditions have improved.
- A descriptive account of a particular strategy with no reference to how it has changed conditions will generally not get beyond Level 1.

AO1 = 3 marks, AO2 = 3 marks, AO3 = 3 marks

Question 2 The changing economic world

02	1	Guyana	1
		AO4 = 1 mark	
02	2	Infant mortality must clearly be on 10 line, GNI somewhere between 15 000–16 000	1
		AO4 = 1 mark	
	ı		T
02	3	A line which down left to right (negative), somewhere within the range of points.	1
		AO4 = 1 mark	
02	4	1 mark – Basic idea – degree of wealth linked to level of medical care,health services, social services, education, family income, food supply and diet.	2
		2 nd mark – Some development based on link to infant mortality.	
		AO3 = 2 marks	

02	5	1 mark – for calculating the average infant mortality rate at 16.75 (per 1000 births) accept any number between 16 and 17. 2 nd mark – for showing working out. AO4 = 2 marks	2
02	6	'Might affect the quality of life' could mean a positive or a negative impact. 2 x 2 marks 1 mark – For an identified point. 2 nd mark – for some extension of the identified point or some appropriate development. Indicative content Wider provision of medical services. Increased access to education. Higher rates of adult literacy. Improved food security. Improvements infrastructure. Less disease- safe water, sewage disposal. AO2 = 4 marks	4
02	7	Change(s) suggests a need for more than one change or an overall understanding of a change in structure. 1 mark – identifies a single change. 2 marks – identifies two or more changes or an overall understanding of structural change (which will generally include an identification of more than one change). AO4 = 2 marks	2

00	0				4
02	8	Level	Marks	Description	4
		2	3–4	AO1 Produces some accurate descriptive	
		(Clear)		knowledge about why industrial structures	
				change.	
				AO2 Shows some clear understanding of why	
				industrial structures change.	
		1	1–2	AO1 Limited knowledge with basic points which	
		(Basic)		largely describe changes with only tentative	
				explanation.	
				AO2 Shows a limited understanding of industrial	
				change.	
			0	No relevant content.	
			U	No relevant content.	
		Indicative co	<u>ntent</u>		
		Mech	nanisatio	n of primary/secondary activity.	
				nt of manufacturing to other countries.	
				ealth leading to the growth of services.	
			•	technology – services/research and development.	
		·	•	particular industrial activities; tourism; transport;	
			ation, etc		

02	9				4
02	9	Level	Marks	Description	4
		2 (Clear)	3–4	AO2 Shows some geographical understanding of how particular features of industrial development will help to make them more sustainable.	
				AO3 Uses Figure 7 effectively and offers development to identify a range of features that will help to make industrial developments sustainable.	
		1 (Basic)	1–2	AO2 Shows limited geographical understanding of how particular features of industrial development will help to make them more sustainable.	
				AO3 Uses Figure 7 OR individual ideas to identify a range of features that will help to make industrial developments sustainable.	
			0	No relevant content.	
			I		

AO1 = 2 marks AO2 = 2 marks

- There are a number of factors identified on Figure 7 which could be considered as important to the sustainable development of industrial areas.
- There is an expectation that students will use Figure 7 and add their own knowledge by developing points from Figure 7 or adding additional ideas.
- Ideas might include; use of renewable energy; grey water systems; waste management systems; pollution monitoring and management; green landscaping; communal transport systems; encouragement of the use of cycling; specific facilities for staff; flexible working patterns, etc.

AO2 = 2 marks, AO3 = 2 marks

		T			1
02	10	Level	Marks	Description	9
		3 (Detailed)	7–9	AO1 Demonstrates detailed knowledge of how the development of tourism can be used to reduce the development gap.	
				AO2 Shows thorough geographical understanding of how the development of tourism can be used to reduce the development gap.	
				AO3 Demonstrates sound application of knowledge and understanding in a reasoned way to evaluate the effectiveness of tourism development as a way of reducing the development gap.	
		2 (Clear)	4–6	AO1 Demonstrates clear knowledge of how the development of tourism can be used to reduce the development gap.	
				AO2 Shows some geographical understanding of the development of tourism can be used to reduce the development gap.	
				AO3 Demonstrates some application of knowledge and understanding to evaluate the effectiveness of tourism development as a way of reducing the development gap.	

1 (Basic)	1–3	AO1 Demonstrates limited knowledge which identifies how the development of tourism can improve living standards.
		AO2 Shows limited geographical understanding of how the development of tourism can be used to reduce the development gap.
		AO3 Demonstrates limited application of knowledge and understanding and makes simple evaluative statements about the effectiveness of tourism development as a way of reducing the development gap.
	0	No relevant content.

- At the highest level students are expected to show some understanding of the development gap.
- At the lower levels reducing the development gap may be implied by an appreciation of how the development of tourism can create socio-economic opportunities.
- Economic factors considered may include the creation of jobs (direct and through the multiplier); increases in income; opportunity for the development of skills; the development of infrastructure and improvement of services.
- Social opportunities may include the development and improvement of services; the opportunity to improve general living conditions and general improvement to health and welfare.
- Students may include examples where particular tourism developments have included the building of social facilities such as schools; health clinics; water and sanitation systems; electricity systems.

AO1 = 3 marks, AO2 = 3 marks, AO3 = 3 marks

6

Question 3 The challenge of resource management

03	1	C (6)	1
		AO4 = 1 mark	
03	2	1 mark – basic idea of increasing food miles meaning a greater need for transport.	2
		2 nd mark – some development which includes observations about increasing use of fuel or a link to increasing levels of pollution.	
		AO2 = 1 mark, AO3 = 1 mark	

03	3			
03	3	Level	Marks	Description
		3 (Detailed)	5–6	AO2 D Demonstrates detailed understanding of the issues surrounding sourcing food locally compared to importing food from abroad.
				AO3 Demonstrates sound application of knowledge and understanding in a reasoned way to make a judgement about whether to source food locally or import from abroad.
		2 (Clear)	3–4	AO2 Demonstrates clear understanding of the issues surrounding sourcing food locally compared to importing food from abroad.
				AO3 Demonstrates some application of knowledge and understanding to evaluate the relative importance of sourcing food locally or importing from abroad.
		1 (Basic)	1–2	AO2 Demonstrates limited understanding of the issues surrounding sourcing food locally compared to importing food from abroad.
				AO3 Demonstrates limited application of knowledge and understanding and makes simple evaluative statements about sourcing food locally or importing food from abroad.
			0	No relevant content.

Indicative content

- The command is 'To what extent', so the focus of the question is an evaluation of the issues surrounding the decision to buy locally produced food compared to food from abroad with an appreciation of the judgements involved.
- Students may consider broader environmental issues including carbon footprints/food miles/levels of pollution, etc.
- Students may consider issues of waste and cost.

- Students may consider factors about supporting local farmers and farming communities.
- Students may consider the quality of local produce.
- Students may consider the knowledge of knowing how local food has been produced an important consideration.
- Observations about supporting local business rather than large supermarkets may be a factor.
- The importance of price may be significant (in terms of demand).
- Greater awareness of environmental/food issues because of publicity or television programmes.
- Advertising/marketing, both in a national and local context (local farmers markets) may be a consideration.

AO2 = 3 marks, AO3 = 3 marks

AO2 = 2 marks

03	4	fluctuated coal 1992	3
		3 x 1 marks	
		AO4 = 3 marks	
03	5	Any two reasonable points (2 x 1) or a single developed point (2marks)	2
		Indicative content	
		 The relative price. Ease of use/flexibility of use or transportation of resource. Concerns about the environment. Government policy. Response to public opinion. 	
		 Increasing drive towards renewables. Coal running out/decline, in the UK. International carbon agreements. 	

Question 4 Food

04	1	Africa	1		
		AO4 = 1 mark			
			_		
04	2	1 mark for identification of an area/areas that consume more than 3500 calories per year.	2		
		2 nd mark for an appreciation of the overall distribution. This might be a reference to the more developed parts of the world or use of named continents to express this.			
		AO4 = 2 marks			
		T	<u> </u>		
04	3	1 mark –for identified point	2		
		2 nd . mark – for some extension of the identified point or some appropriate development.			
		Indicative content			
		 Malnutrition/starvation/famine. Specific health issues. Links to individual/national economic circumstances. Migration from rural areas. Civil conflict. 			
		AO2 = 2 marks			

04	4		_		6
04	4	Level	Marks	Description	0
		3 (Detailed)	5–6	AO1 Demonstrates detailed knowledge of the advantages and disadvantages of a specific large scale agricultural development. AO2- Shows thorough geographical understanding of the advantages and disadvantages of a specific large scale agricultural development.	
		2 (Clear)	3-4	AO1- Demonstrates clear knowledge of the advantages and disadvantages of a referenced large scale agricultural development. AO2- Shows some geographical understanding of the advantages and disadvantages of a referenced large scale agricultural development.	

1 (Basic)	1–2	AO1 Demonstrates limited amount of largely generic knowledge of the advantages and disadvantages of a large scale agricultural development.
		AO2 Shows limited geographical understanding of the advantages and disadvantages of a large scale agricultural development.
	0	No relevant content.

Advantages

- Increased food production.
- Increased cash crops (export).
- Cheaper food.
- Improved health.
- Up skilling of workforce.
- Labour freed up for other industry.
- Disadvantages.
- Less jobs in rural areas.
- Increased use of water.
- Need for industrial inputs (imports).
- Breakdown of rural communities.
- Small scale farmers lose their land.
- Problems of pollution.

AO1 = 3 marks, AO2 = 3 marks

Question 5 Water

05	1	Africa	1		
		AO4 = 1 mark			
05	2	1 mark for identification of an area/areas that have 100% access to safe water.			
		2 nd mark for an appreciation of the overall distribution. This might be a reference to the more developed parts of the world or use of named continents to express this.			
		AO4 = 2 marks			
05	3	1 mark –for identified point	2		
		2 nd . mark – for some extension of the identified point or some appropriate development.			
		Indicative content			
		 Increasing use of contaminated water. Specific health issues. Links to individual/national economic circumstances. Impact on farming/industry. Migration from water shortage areas. Civil conflict. 			
		AO2 = 2 marks			

05	4	Level	Marks	Description	6
		3	5–6	AO1 Demonstrates detailed knowledge of the	
		(Detailed)		advantages and disadvantages of a specific	
				large scale water transfer scheme.	
				AO2 Shows thorough geographical	
				understanding of the advantages and	
				disadvantages of a specific large scale water	
				transfer scheme.	
		2	3–4	AO1 Demonstrates clear knowledge of the	
		(Clear)		advantages and disadvantages of a referenced	
				large scale water transfer scheme.	
				AO2 Shows some geographical understanding	
				of the advantages and disadvantages of a	
				referenced large scale water transfer scheme.	
		1	1–2	AO1 Demonstrates limited amount of largely	
		(Basic)		generic knowledge of the advantages and	
				disadvantages of a large scale water transfer	
				scheme.	
				AO2 Shows limited geographical understanding	
				of the advantages and disadvantages of a large	
				scale water transfer scheme.	
			0	No relevant content.	
		Indicative co	<u>ntent</u>		
		Advantages	:		
		•		ess to water for agriculture and industry.	
				ess to water for residential areas.	
		 Chea 	per wate	er.	
				r – improved health.	
			-	opportunities.	
				velopment.	
			dvantage omic cos		
				o communities.	
			create co		
		•		atic habitats.	
				ater costs.	
		AO1 = 3 ma	arks, AO2	2 = 3 marks	

Question 6 Energy

06	1	Africa	1			
		AO4 = 1 mark				
06	2	1 mark for identification of an area/areas that consume over 400 000 tonnes of oil equivalent/year.				
		2 nd mark for an appreciation of the overall distribution. This might be a reference to the more developed parts of the world or use of named continents to express this.				
		AO4 = 2 marks				
			T 1			
06	3	1 mark –for identified point	2			
		2 nd . mark – for some extension of the identified point or some appropriate development.				
		Indicative content				
		 Lack of energy for domestic needs. Specific health issues linked to uncooked food. Links to individual/national economic circumstances. Impact on farming/industry. Transport difficulties. Civil conflict. 				
		AO2 = 2 marks				

00	,				
06	4	Level	Marks	Description	6
		(Detailed)	5–6	AO1 Demonstrates detailed knowledge of the advantages and disadvantages of a specific example of fossil fuel extraction.	
				AO2 Shows thorough geographical understanding of the advantages and disadvantages of a specific example of fossil fuel extraction.	
		2 (Clear)	3–4	AO1 Demonstrates clear knowledge of the advantages and disadvantages of a referenced example of fossil fuel extraction.	
				AO2 Shows some geographical understanding of the advantages and disadvantages of a referenced example of fossil fuel extraction.	
		1 (Basic)	1–2	AO1 Demonstrates limited amount of largely generic knowledge of the advantages and disadvantages of fossil fuel extraction.	
				AO2 Shows limited geographical understanding of the advantages and disadvantages of fossil fuel extraction.	
			0	No relevant content.	
		 Enco Oppo Deve Expo Disac Distu May Incre Desti Pollu Loca Healt 	oyment of comment of the comment of	of local communities. There industry (tourism). The fic/congestion. The habitats. The ses. Th	
		AO1 = 3 ma	ırks, AO2	2 = 3 marks	

