OCR
Oxford Cambridge and RSA

GCSE

Geography A (Geographical Themes)

Unit **J383/01**: The world around us General

Certificate of Secondary Education

Mark Scheme for June 2018

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

Annotations

Annotation	Meaning
	Tick
	Unclear
	Cross
	Omission mark
L1	Level 1
L2	Level 2
L3	Level 3
L4	Level 4
DEV	Development
PLC	Relevant place detail
BOD	Benefit of doubt
IRRL	Significant amount of material which doesn't answer the question
	Vertical way line
C	Communicate findings
BP	Blank page
SEEN	Noted but no credit given

Subject-specific Marking Instructions

	AO1	AO2	AO3
Comprehensive	A range of detailed and accurate knowledge that is fully relevant to the question.	A range of detailed and accurate understanding that is fully relevant to the question.	Detailed and accurate interpretation through the application of relevant knowledge and understanding. Detailed and accurate analysis through the application of relevant knowledge and understanding. Detailed and substantiated evaluation through the application of relevant knowledge and understanding. Detailed and substantiated judgement through the application of relevant knowledge and understanding.
Thorough	A range of accurate knowledge that is relevant to the question.	A range of accurate understanding that is relevant to the question.	Accurate interpretation through the application of relevant knowledge and understanding. Accurate analysis through the application of relevant knowledge and understanding. Supported evaluation through the application of relevant knowledge and understanding. Supported judgement through the application of relevant knowledge and understanding.
Reasonable	Some knowledge that is relevant to the question.	Some understanding that is relevant to the question.	Some accuracy in interpretation through the application of some relevant knowledge and understanding. Some accuracy in analysis through the application of some relevant knowledge and understanding. Partially supported evaluation through the application of some relevant knowledge and understanding. Partially supported judgement through the application of some relevant knowledge and understanding.
Basic	Limited knowledge that is relevant to the topic or question.	Limited understanding that is relevant to the topic or question.	Limited accuracy in interpretation through lack of application of relevant knowledge and understanding. Limited accuracy in analysis through lack of application of relevant knowledge and understanding. Un-supported evaluation through lack of application of knowledge and understanding. Un-supported judgement through lack of application of knowledge and understanding.

Question			Answer	Mark	Guidance
1	(a)	(i)	A: Cold, wet climate with steep sided valleys (✓)	1	(✓)
		(ii)	C: South East England (✓)	1	(✓)
	(b)	(i)	Long, thin stretch of land/beach (✓) Hooks/recurves (✓) Made of sand/shingle/sediment (✓) Vegetation/grass/sand dunes (✓) There is little vegetation at the end of the spit (✓) Salt marsh formed (✓) The land is low-lying/close to sea level (✓) Across/near a river (✓)	2	2 x 1 (✓) for each valid idea interpreted from **Fig. 2**
		(ii)	Longshore drift occurs/sediment is transported along the beach (✓) The prevailing wind approaches the beach at an angle (✓) The swash travels up the beach at an angle and the backwash back travels down the beach at 90^0 (✓) Spits form when there is a change in direction of the coastline (✓) Waves lose energy and deposit sediment (✓) Hooks/recurves form due to LSD changing direction during storms or secondary LSD direction or wave refraction (✓) Behind the spit salt marshes form due to the deposition of silt in sheltered waters/low energy environment (✓)	4	4 x 1 (✓) for each valid explanation of the formation of a spit Development awarded with (✓) as a further valid explanation. Diagram not necessary but credit annotations as appropriate. Do not double credit annotations on the diagram, as well as in the candidate's written response. A generic explanation can be awarded full marks without reference to the spit in the photograph. Full marks can be awarded for one well-developed explanation.
	(c)*		**Case study: a UK river basin** **Level 4 (10-12)** An answer at this level demonstrates **comprehensive** knowledge of human activity and geomorphic processes in the river basin (AO1) with a **comprehensive** understanding of how geomorphic processes and human activities impact the landscape in the chosen river basin	12	**Indicative content** Expect discussion of both human activities and geomorphic processes in relation to a distinctive river landscape. If only one element is discussed, the level awarded is determined by the quality of the response. Analysis and judgement of the role of human activities and geomorphic processes can be found anywhere in

Question			Answer	Mark	Guidance
			(AO2). There will be a **comprehensive** analysis in comparing the impacts of human activity and geomorphic processes (AO3) with a **comprehensive** judgement of the extent to which the statement is agreed with (AO3). There will be **well-developed** ideas about the impact of human activities and geomorphic processes **and** which have a greater impact. The answer must also include **place-specific** ideas about the named river basin. Amount of relevant place-specific detail determines credit within the level. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. **Level 3 (7-9 marks)** An answer at this level demonstrates **thorough** knowledge of human activity and geomorphic processes in the river basin (AO1) with a **thorough** understanding of how geomorphic processes and human activities impact the landscape in the chosen river basin (AO2). There will be a **thorough** analysis in comparing the impacts of human activity and geomorphic processes (AO3) with a **thorough** judgement of the extent to which the statement is agreed with (AO3). This will be shown by including **well-developed** ideas about **either** about the impact of human activities and geomorphic processes **or** which have a greater impact and **developed** ideas about the **other** question focus.		the response, not just at the end. Estuarine, delta, mudflat and salt marsh environments (including spits) are valid parts of a river basin. Responses using other clearly coastal examples or contexts can achieve a maximum of L2. **Example of well-developed ideas** The River Eden, Cumbria flows from the Howgill Fells to The Solway Firth. Geomorphic processes contribute to the formation of Hell Gill Force in the upper course. The base of the waterfall is eroded by abrasion, when sediment in the water collides with the bed and banks, gradually wearing it away, creating a plunge pool. This creates an overhang. Eventually the overhang becomes larger and weaker and cannot support itself so collapses into the plunge pool. This happens over and over again gradually forming a gorge. Human activity has also had significant impacts on the river basin. A flood embankment has been built along Warwick Road in Carlisle. This increases the capacity of the channel in order to stop water overflowing onto the road, which contains houses and businesses. However, in the 2015 floods these embankments did not work causing the city to flood. I believe that geomorphic processes have the biggest impact on river basins as they occur the whole length of the river whereas human activity such as flood defences only work on small sections of the river such as the lower course.

Question			Answer	Mark	Guidance
			The answer must also include **place-specific** ideas about the river basin. Amount of relevant place-specific detail determines credit within the level. There is line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. **Level 2 (4-6 marks)** An answer at this level demonstrates **reasonable** knowledge of human activity and geomorphic processes in the river basin (AO1) with a **reasonable** understanding of how geomorphic processes and human activities impact the landscape in the chosen river basin (AO2). There will be a **reasonable** analysis in comparing the impacts of human activity and geomorphic processes (AO3) with a **reasonable** judgement of the extent to which the statement is agreed with (AO3). This will be shown by including **developed** ideas about **either** about the impact of human activities and geomorphic processes **or** which have a greater impact and **simple** ideas about the **other** question focus. Developed ideas but no place-specific details credited up to **middle** of level. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. **Level 1 (1-3 marks)** An answer at this level demonstrates **basic** knowledge of human activity and geomorphic processes in the river basin (AO1) with a **basic** understanding of how geomorphic processes and human activities impact the		**Example of developed ideas** The River Eden, Cumbria. Hell Gill Force is a waterfall. The base is eroded by abrasion, creating a plunge pool. This creates an overhang which eventually collapses forming a gorge. Human activity has also had significant impacts on the river basin. For example flood management in Carlisle. An embankment has been built to stop the water overflowing. However, in the 2015 floods these embankments did not work causing the city to flood. Geomorphic processes have the biggest impact on the river basin as they occur the whole length of the river. **Example of simple ideas** The River Eden, flows through Cumbria. Geomorphic processes form river landforms. A waterfall is formed by erosion. After a while the rock above falls. Human activity can affect river basins. Embankments let the river hold more water.

Question			Answer	Mark	Guidance
			landscape in the chosen river basin (AO2). There will be a **basic** analysis in comparing the impacts of human activity and geomorphic processes (AO3) with a **basic** judgement of the extent to which the statement is agreed with (AO3). This will be shown by including **simple** ideas about **either** about the impact of human activities and geomorphic processes **or** which have a greater impact and **simple** ideas. No developed points are made. Appropriate named example only credited at **bottom** of level. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to evidence may not be clear. **0 marks** No response worthy of credit.		
			Spelling, punctuation and grammar and the use of specialist terminology (SPaG) are assessed using the separate marking grid in Appendix 1.	3	

Question			Answer	Mark	Guidance
2	(a)		Highest/better broadband access occurs in areas of highest population density/larger cities/urban areas/south east (✓) Low/poor access occurs in remote/upland/rural locations/areas of low population density/north of the UK (✓) There is an uneven distribution/pattern of broadband access (✓)	3	2 x 1 (✓) for describing the pattern of superfast broadband coverage 1 x 1 (COM) for communicating the answer in an appropriate and logical order (will make reference to two elements of the pattern, e.g. high and low broadband access). Evidence from the map is not required. However, references to regions/countries of the UK can be credited as parts of the pattern (however, generalised statements such as 'south' are not credited).
	(b)	(i)	1950 (✓)	1	(✓)
		(ii)	C: Stage 3 (✓)	1	(✓) Accept '3' as a valid response.
		(iii)	Pension age is increasing (✓) which means that government income from tax revenue increases to pay for extra spending on pensions/healthcare (✓). Pensioners receive support from the government (✓) as the increasing number of retired people try to live on a fixed/low income (✓). More investment in the NHS is needed to help treat an elderly population (✓) because the increasing life expectancy means that an increasingly number of people experience illnesses and injuries (✓). More public transport is needed to improve accessibility (✓) because ageing drivers are more likely to lose their driving licences due to ill health (✓). Encouragement/Allowing more immigration (✓) to increase tax contributions to increase the government's income to pay for the extra spending on pensions/healthcare (✓).	4	4 x 1 (✓) for valid points explaining the responses to an ageing population Development awarded with (✓) as a further valid explanation. Comments on the impacts of an ageing population can be credited as an explanation of the responses. Accept any other suitable responses. Full marks can be awarded for one well-developed explanation.

Question			Answer	Mark	Guidance
			Encouraging people to have children, such as introducing childcare vouchers (✓) to balance the population structure/reduce the falling proportion of younger cohorts (✓).		
	(c)		Immigrants take up jobs (✓) which means more tax is paid (DEV) Immigrants set up businesses (✓) which increases the tax being paid by employees/GDP (DEV). Some immigrants take jobs on farms or in factories (✓) this ensures there are enough workers in these industries (DEV) Some skilled workers have moved to get jobs here e.g. nurses in the NHS (✓) ensures that any skills shortages are met, providing effective public services (DEV) Immigrants who study at universities pay considerable fees (✓) this money can be invested into universities reducing costs for UK students (DEV) Money that is earned in the UK is sent back to the country of origin (✓) improving the income/standard of living of families in the migrants' home region (DEV).	2	1 x 1 (✓) for identifying one advantage of immigration 1 x 1 (DEV) for explanation of the advantage for immigration into the UK
	(d)		**Case Study: a major city in the UK** **Level 3 (5-6 marks)** An answer at this level shows **thorough** knowledge of sustainable strategies in the UK city (AO1) with **thorough** understanding of the sustainable strategies that can be applied to one challenge (AO2) and a **thorough** evaluation of how these strategies overcome one challenge (AO3). This will be shown by including **developed** ideas about the sustainable strategies and how these overcome one challenge.	6	**Indicative content (including those in the planning phase), including:** **Housing Provision**: Affordable housing, housing provision for elderly, student accommodation **Waste management:** Landfill, recycling, waste collection **Transport Provision:** Bus routes/ park and ride schemes, cycling, rail schemes eg HS2

Question			Answer	Mark	Guidance
			The answer must also include **place-specific** ideas about the sustainable strategies. Amount of relevant place-specific detail determines credit within the level. **Level 2 (3-4 marks)** An answer at this level shows **thorough** knowledge of sustainable strategies in the UK city (AO1) with **basic** understanding of the sustainable strategies that can be applied to one challenge (AO2) and a **basic** evaluation of how these strategies overcome one challenge (AO3). This will be shown by **developed** ideas about the sustainable strategies and **simple** ideas about how these overcome one challenge. Developed ideas but no place-specific details credited up to **bottom** of level. **Level 1 (1-2 marks)** An answer at this level shows **basic** knowledge of sustainable strategies in the UK city (AO1) and **either basic** understanding of the sustainable strategies that can be applied to one challenge (AO2) or a **basic** evaluation of how these strategies overcome one challenge (AO3). This will be shown by **simple** ideas about the sustainable strategies and how these overcome one challenge. Simple ideas or appropriate named example only credited at **bottom** of level. **0 marks** No response worthy of credit.		Accept strategies which relate to any relevant challenge in the chosen UK city. Strategies do not need to be named in order to achieve L3. Responses containing one sustainable strategy can achieve a maximum of L2. Responses using a LIDC/EDC example or context can achieve a maximum of L2, 3 marks. Evaluation may be implicit and may occur in different forms e.g. positive/negative points, comparison of strategies/type of sustainability/scale. **Examples of developed ideas** One sustainable strategy used to manage transport in Leeds is HS2. This is a high speed rail link which will connect to London in just 2 hours and 11 minutes. It is hoped that the rail link will lead to new businesses starting up in Leeds. This will increase jobs in the city resulting in economic growth. However, it is a very expensive project and the benefits might not occur for many years. Another strategy is the First Bus service. The vehicles use low carbon fuels. If more people use the buses it reduces pollution and congestion. **Examples of simple ideas** One strategy used to manage transport in Leeds is a new rail link which will allow quick travel and will create new jobs. A transport system in Leeds is buses that produce less pollution.

Question			Answer	Mark	Guidance
3	(a)	(i)	**Polar maritime:** Cold air collects moisture over the sea resulting in cold, showery weather (✓) **Polar continental:** In winter it brings very cold, dry air. It can cause snow showers in the east of the UK (✓) **Tropical maritime:** Warm, moist air brings mild weather in winter (✓)	2	3 correct = 2 marks (✓) 1 or 2 correct = 1 mark (✓)
		(ii)	Heats up quickly in summer/cools down quickly in winter (✓) so provides inland parts of the UK with hot weather in summer/so provides inland parts of the UK with very cold weather in winter (✓) Land is dry (✓) so provides inland areas of the UK may have less precipitation (✓) UK has a maritime climate (✓) so it heats up more slowly than a continental land mass (✓)	2	2 x 1 (✓) for valid points explaining of how continentality influences the weather in the UK. Do not credit opposite statements. Responses which explain the low level of continentality (eg oceanicity) and its effects on the UK's climate are valid. Development awarded with (✓) as a further valid explanation. References to the indirect impact of continental air masses from mainland Europe on the weather of regions such as South East England may be valid.
	(b)		**Case Study – a flood event in the UK caused by extreme weather conditions** Heavy rain (✓) increasing surface runoff so water gets to river more quickly (DEV) Steep slopes (✓) increasing surface runoff so water gets to river more quickly (DEV) Saturated ground (✓) so water cannot infiltrate and runs off on the surface (DEV)	4	2 x 1 (✓) for the cause of the flood 2 x 1 (DEV) for explanation of how the cause influenced the flood event. Causes need to be linked to a case study and should convey a sense of place, but specific place detail is not required for full marks.

Question			Answer	Mark	Guidance
			Confluence of rivers (✓) so large volume of water arrives causing a flood (DEV) Lack of vegetation in the drainage basin (✓) so less interception, resulting in more surface runoff (DEV) Urbanisation (✓) means more impermeable surfaces increasing surface runoff (DEV) Defences failing (✓) causing previously held back water to spill onto surrounding land (DEV) Flat/low-lying land (✓) means that the floodwater will more easily spread over a wide area (DEV) Rivers are not dredged (✓) which means that the river channel cannot hold as much water (DEV)		Flash flooding in urban areas and coastal flooding can achieve maximum marks. A response containing no named case study can achieve 2 marks max.
	(c)	**(i)**	Renewable energy can be used without being used up/will not run out/is infinite (✓). An energy source which is replenishable/sustainable (✓).	1	(✓)
		(ii)	17% (✓)	1	(✓)
		(iii)	Expensive to extract/to consumer (✓) The price of imported gas can be expensive (✓) Less gas available/running out/a non-renewable resource (✓) The contribution of renewable/other sources is increasing (✓) Government has funded other sources e.g. renewables (✓) Householders want to use more green energy e.g. solar panels. (✓) Produces greenhouse gases that are harmful to the environment. (✓)	2	2 x 1 (✓) for the reasons for changing contribution of gas

Question			Answer	Mark	Guidance
	(d)*		**Level 3 (6-8 marks)** An answer at this level demonstrates a **thorough** knowledge of renewable energy source(s) (AO1) with **reasonable** understanding of the impacts of the development of one or more renewable energy sources (AO2). There is a **thorough** evaluation of the impacts of the development on people and the environment (AO3). This will be shown by **well-developed** ideas about the impacts of the development of renewable energy source(s) on people and the environment. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. **Level 2 (3-5 marks)** An answer at this level demonstrates a **reasonable** knowledge of renewable energy source(s) (AO1) with **basic** understanding of the impacts of the development of one or more renewable energy sources (AO2). There is a **reasonable** evaluation of the impacts of the development on people and/or the environment (AO3). This will be shown by **developed** ideas about the impacts of the development of renewable energy source(s) on people and/or the environment. There is a line of reasoning presented with some structure. The information presented is in the most part relevant and supported by some evidence.	8	**Indicative content** Accept any renewable energy sources e.g. HEP, wind, biomass, geothermal, tidal, wave, solar. NB This is NOT a case study question, so responses need not contain specific place detail. Knowledge may be displayed via description of the renewable energy source(s). A generic response containing no named renewable energy sources can achieve a maximum of 5. Evaluation may be implicit and may occur in different forms e.g. positive/negative points, comparison of sources/impacts/scale. **Examples of well-developed ideas** One source of renewable energy is wind power. One negative impact on the environment is that is the blades from the wind turbines can spin so fast that when birds fly into them they can be killed instantly. As a result, it has been estimated that thousands of bird deaths a year might be due to this. Wind power can also have positive impacts. As the energy produced gives off no carbon emissions, the effects of global warming on both people and the environment are minimised. It helps to reduce the reliance on imported fossil fuels which secure energy supplies for households. On the other hand, wind energy can be unreliable in calm weather conditions. **Examples of developed ideas** One source of renewable energy is wind power.

Question			Answer	Mark	Guidance
			Level 1 (1-2 marks) An answer at this level demonstrates a **basic** knowledge of renewable energy source(s) (AO1) with **basic** understanding of the impacts of the development of one or more renewable energy sources (AO2). There is a **basic** evaluation of the impacts of the development on people and/or the environment (AO3). This will be shown by **simple** ideas about the impacts of the development of renewable energy source(s) on people and/or environment. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to evidence may not be clear. **0 marks** No response or no response worthy of credit.		One negative impact on the environment is that is the blades from the wind turbines can spin so fast that when birds fly into them they can be killed. Wind power can also have positive impacts. It produces no air pollution so the effects of global warming are minimised. The UK does not need to burn so many fossil fuels but wind energy can be unreliable. **Examples of simple ideas** One source of renewable energy is wind power. One problem is the blades from the wind turbines can spin so fast birds are killed. However, wind power does not pollute the air, but sometimes the wind does not blow.

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