GCE A LEVEL MARKING SCHEME

SUMMER 2018

A LEVEL (NEW)
GEOGRAPHY - UNIT 3
1110U30-1

INTRODUCTION

This marking scheme was used by WJEC for the 2018 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.

Unit 3: Global Systems and Global Governance

Mark Scheme

Guidance for Examiners

Positive marking

It should be remembered that learners are writing under examination conditions and credit should be given for what the learner writes, as opposed to adopting an approach of penalising him/her for any omissions. It should be possible for a very good response to achieve full marks and a very poor one to achieve zero marks. Marks should not be deducted for a less than perfect answer if it satisfies the criteria of the mark scheme.

The mark scheme for this unit includes both point-based mark schemes and banded mark schemes.

Point-based mark schemes

For questions that are objective or points-based the mark scheme should be applied precisely. Marks should be awarded as indicated and no further subdivision should be made. Each creditworthy response should be ticked in red ink. Do not use crosses to indicate answers that are incorrect. The targeted assessment objective (AO) is also indicated.

Banded mark schemes

For questions with mark bands the mark scheme is in two parts.

The first part is advice on the indicative content that suggests the range of concepts, processes, scales and environments that may be included in the learner's answers. These can be used to assess the quality of the learner's response.

The second part is an assessment grid advising on bands and the associated marks that should be given in responses that demonstrate the qualities needed in the three AOs, AO1, AO2 and AO3, relevant to this unit. The targeted AO(s) are also indicated, for example AO2.1c.

Assessment Objective	Strands	Elements
AO1 Demonstrate knowledge and understanding of places, environments, concepts, processes, interactions and change, at a variety of scales.	N/A	This AO is a single element.
AO2 Apply knowledge and understanding in different contexts to interpret, analyse and evaluate geographical information and issues.	N/A	1a - Apply knowledge and understanding in different contexts to analyse geographical information and issues.
		1b - Apply knowledge and understanding in different contexts to interpret geographical information and issues.
		1c - Apply knowledge and understanding in different contexts to evaluate geographical information and issues
AO3 Use a variety of relevant quantitative, qualitative and fieldwork skills to: • investigate geographical questions and issues • interpret, analyse and evaluate data and evidence • construct arguments and draw conclusions.	1 - investigate geographical questions and issues	N/A
	2 - interpret, analyse and evaluate data and evidence	
	3 - construct arguments and draw conclusions	

Banded mark schemes are divided so that each band has a relevant descriptor. The descriptor for the band provides a description of the performance level for that band. Each band contains marks. Examiners should first read and annotate a learner's answer to pick out the evidence that is being assessed in that question. Once the annotation is complete, the mark scheme can be applied. This is done as a two-stage process.

Banded mark schemes Stage 1 – Deciding on the band

When deciding on a band, the answer should be viewed holistically. Beginning at the lowest band, examiners should look at the learner's answer and check whether it matches the descriptor for that band. Examiners should look at the descriptor for that band and see if it matches the qualities shown in the learner's answer. If the descriptor at the lowest band is satisfied, examiners should move up to the next band and repeat this process for each band until the descriptor matches the answer.

If an answer covers different aspects of different bands within the mark scheme, a 'best fit' approach should be adopted to decide on the band and then the learner's response should be used to decide on the mark within the band. For instance, if a response is mainly in band 2 but with a limited amount of band 3 content, the answer would be placed in band 2, but the mark awarded would be close to the top of band 2 as a result of the band 3 content.

Examiners should not seek to mark candidates down as a result of small omissions in minor areas of an answer.

Banded mark schemes Stage 2 – Deciding on the mark

Once the band has been decided, examiners can then assign a mark. During standardising (marking conference), detailed advice from the Principal Examiner on the qualities of each mark band will be given. Examiners will then receive examples of answers in each mark band that have been awarded a mark by the Principal Examiner. Examiners should mark the examples and compare their marks with those of the Principal Examiner.

When marking, examiners can use these examples to decide whether a learner's response is of a superior, inferior or comparable standard to the example. Examiners are reminded of the need to revisit the answer as they apply the mark scheme in order to confirm that the band and the mark allocated is appropriate to the response provided.

Indicative content is also provided for banded mark schemes. Indicative content is not exhaustive, and any other valid points must be credited. In order to reach the highest bands of the mark scheme a learner need not cover all of the points mentioned in the indicative content but must meet the requirements of the highest mark band. Where a response is not creditworthy, that is contains nothing of any significance to the mark scheme, or where no response has been provided, no marks should be awarded.

The specialised concepts from the specification that apply in the indicative content are underlined.

The mark scheme reflects the layout of the examination paper. Mark questions 1 and 2 and either 3 or 4 in Section A plus questions 5 and 6 and either 7 or 8 in Section B. In Section C, mark either question 9 or 10. If the candidate has responded to all questions in either Section A, B or B, mark all these responses. Award higher marks attained; further possible rubric infringements will be discussed at the marking conference.

Be prepared to reward answers that give **valid and creditworthy** responses, especially if these do not fully reflect the 'indicative content' of the mark scheme.

Section A: Global Systems - Water and Carbon Cycles

1. (a) Use **Figure 1** to compare the peak discharge of the storm hydrographs. Skills 3.6	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
Award 1 mark for each valid point					3		**3**

Indicative Content

- Mercer Creek has higher peak (1)

- Both peaks occur at same time (1) Mercer Creek peak slightly earlier (shorter lag-time) than Newaukum Creek (1)
- Mercer Creek has steeper rising limb (more flashy) and vice versa (1)
- Newaukum Creek peak lasts longer (1)
- Allow 1 mark for use of data to support a comparison e.g. Mercer Creek peak at 24 $ft^3/s/mile^2$, Newaukum Creek peak at 9 $ft^3/s/mile^2$ or the difference between them (1)
- Peak discharge on both hydrographs is within two days of the start of the event (1)
- Newaukum Creek has secondary peak whereas Mercer Creek has a single peak discharge (1)

Marking Guidance

Must have comparison point for access to full marks

1. (b) Outline how **one** change of land use within a river catchment can lead to the generation of excess runoff. Content: 2.1.4	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
Award 1 mark for each valid point	4						**4**

Indicative Content

- 1 mark reserved for identification of valid change in land use – urbanisation, deforestation, intensification of agriculture etc.
- Remaining marks for outline of how change of land use can lead to excess runoff. Content will vary according to land use change selected e.g. for urbanisation – increase in impermeable surfaces [1] leads to less infiltration [1], higher proportion of rainfall moves as overland flow [1], less uptake and storage of water by vegetation [1]

Marking guidance

Look for comments that link **land use changes** to **changes in the pathways** of water through the drainage basin.

2. (a) Explain the process of peat formation. Content: 2.1.8	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
	5						**5**

Indicative Content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

- Following the last Ice Age, climatic conditions were cool and wet, glacial retreat left areas covered in fertile sediment
- Species from warmer parts of southern England and Europe e.g. grasses and subsequently trees grew in this sediment
- The climate entered a wetter phase (moderate to relatively high levels of rainfall) during which there was continuous annual growth of vegetation such as cotton grass and Sphagnum mosses
- Conditions were ideally suited for growth of these hardy plants: poor drainage led to soils that were waterlogged, acidic and nutrient-poor conditions
- The level of oxygen in the waterlogged soil is very low or absent (anaerobic conditions prevail)
- Lack of decomposition of dead organic matter
- Accumulation of peat with included carbon
- Sequestration of atmospheric carbon

Marking Guidance

Credit for types of peat bogs e.g. Fenland or Upland.
Access to Band 3 must include an example (species or location) and for full marks there should be reference to carbon.

Award the marks as follows:	
	AO1 (5 marks)
Band	*Shows knowledge and understanding of the processes involved in peat formation.*
3	**4-5 marks** Demonstrates detailed and accurate knowledge of peat formation processes, ideas in logical sequence. Sound grasp of characteristics leading to peat formation. Demonstrates accurate knowledge and understanding using appropriate, and developed examples (locations or species). Must include carbon reference for full marks. Well annotated sketches / diagrams / maps may also be used and should be credited.
2	**2-3 marks** Demonstrates some knowledge of peat formation processes, ideas may appear out of sequence, awareness of characteristics leading to peat formation. Demonstrates mostly accurate knowledge and understanding using some examples (locations or species). Generalised sketches / diagrams / maps may also be used and should be credited.
1	**1 mark** Demonstrates limited knowledge of peat formation processes, limited awareness of characteristics leading to peat formation. Basic sketches / diagrams / maps may also be used and should be credited
	0 marks Response not creditworthy or not attempted.

2. (b) Suggest how peat extraction and /or drainage could lead to changes in the carbon store in the area shown in **Figure 2**. Content: 2.1.8	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
			5				**5**

Indicative Content

The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

Peat extraction

- Peat is removed (cut / extracted) and dried, it is then burnt as a source of fuel, thus releasing CO_2 into the atmosphere
- Peat taken from raised bogs in lowland areas is commercially extracted by the horticulture industry and sold as nutrient-rich soil and compost – thus no longer a potential store of CO_2

Drainage

- drainage lowers water table across the entire peat bog leading to shrinkage of peat
- top layers are oxidized
- once oxygen penetrates the sub-surface peat store, relatively rapid decomposition can take place.
- oxidation causes decomposition of peat which releases CO_2
- as peat no longer waterlogged, at risk of fire which releases CO_2
- as peat no longer waterlogged, easier to erode by water and wind, thus releasing CO_2 into the atmosphere

Marking Guidance

Candidates do not need to cover both extraction and drainage to access Band 3.

Award the marks as follows:	
	AO2.1b (5 marks)
Band	*Applies AO2.1b to interpret how the processes of peatland extraction and/or drainage could lead to a reduction in carbon storage in the area shown.*
3	**4-5 marks** Demonstrates detailed and accurate knowledge and understanding of processes of peatland extraction and / or peatland drainage and their explicit links to a reduction in carbon storage. Well annotated sketches / diagrams / maps may also be used and should be credited.
2	**2-3 marks** Demonstrates mostly accurate knowledge and understanding of processes of peatland extraction and / or peatland drainage and their links to a reduction in carbon storage. Generalised sketches / diagrams / maps may also be used and should be credited.
1	**1 mark** Demonstrates limited knowledge and understanding of processes of peatland extraction and / or peatland drainage and their links to a reduction in carbon storage. Basic sketches / diagrams / maps may also be used and should be credited.
	0 marks Response not creditworthy or not attempted.

3. Assess the importance of meteorological factors as a cause of deficit within the water cycle. Content: 2.1.5	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
	10			8			**18**

Indicative Content

This question requires candidates to demonstrate their ability to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.
The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

AO1
AO1 content encompasses knowledge and understanding of the concepts of system and mass balance, catchment hydrology as a system and temporal variations in river discharge. Development of this may include:

- Recognition of the concept of mass balance encompassing the inputs, outputs and stores within the water cycle (equilibrium, adaptation, causality and thresholds)
- Appreciation of scale: meteorological factors can cause deficit from season to season as well as longer term climate change
- Short term (scale) acknowledgement that there are natural seasonal cycles whereby stores may be added to or depleted (including by evapotranspiration) meanwhile the system maintains equilibrium over a 12 month period
- Longer term (scale) understanding of climate change, whereby the same amount of water is in the system, but is found in different stores/places e.g. wetter / drier and warmer / cooler (uneven) due to variations in atmospheric flows e.g. the Jet Stream (adaptation)

AO2
Candidates demonstrate application of knowledge and understanding through an assessment of the role of meteorological factors as a cause of deficit within the water cycle. Responses may include:

- Assessment of the relative importance of factors affecting deficit within the water cycle e.g. human causes and natural and artificial recharge of aquifers (thresholds)
- Assessment of changing importance over time – seasonal variations or longer-term climate change.

Marking guidance

Near the upper end, answers that score highly will show application of knowledge and understanding by **evaluating** complex, interlinked factors, synthesising information, and may come to rational conclusions (dependent on the causes of deficit within the water cycle and time-frames that are included).

Responses in the middle range will show some application of knowledge and understanding to provide some evaluating and synthesis, and may draw partially supported conclusions.

Near the lower end, responses provide very limited application of knowledge and understanding of deficit within the water cycle to provide little evaluation.

Credit other valid approaches.

Award the marks as follows:		
Band	**AO1 (10 marks)**	**AO2.1c (8 marks)**
	Demonstrates knowledge and understanding of the impact of meteorological factors on mass balance of the water cycle.	*Applies knowledge and understanding to appraise through an assessment of the impact of meteorological factors on mass balance of the water cycle.*
3	**7-10 marks** Mostly accurate knowledge and understanding of the impact of meteorological factors on mass balance of the water cycle. Developed exemplification. Well annotated sketches / diagrams may be used. Spelling, punctuation and grammar used with a high degree of accuracy.	**6-8 marks** Well-developed and structured assessment of how meteorological factors can affect the mass balance of the water cycle and contribute to deficit or surplus. Well-developed and structured assessment of the relative importance of other factors affecting deficit within the water cycle e.g. human causes and natural and artificial recharge of aquifers. Well-developed and structured assessment of changing importance over time – seasonal variations or longer-term climate change.
2	**4-6 marks** Partial knowledge and understanding of the impact of meteorological factors on mass balance of the water cycle. Generalised exemplification. Simple sketches / diagrams may be used. Spelling, punctuation and grammar used with a reasonable degree of accuracy.	**4-5 marks** Partial or unbalanced assessment of how meteorological factors can affect the mass balance of the water cycle and contribute to deficit or surplus. Partial or unbalanced assessment of the relative importance of other factors affecting deficit within the water cycle e.g. human causes and natural and artificial recharge of aquifers. Partial or unbalanced assessment of changing importance over time – seasonal variations or longer-term climate change.
1	**1-3 marks** Limited knowledge and understanding of the impact of meteorological factors on mass balance of the water cycle. Limited exemplification. Basic sketches / diagrams may be used. Spelling, punctuation and grammar used with limited degree of accuracy.	**1-3 marks** Limited assessment of how meteorological factors can affect the mass balance of the water cycle and contribute to deficit or surplus. Limited assessment of the relative importance of other factors affecting deficit within the water cycle e.g. human causes and natural and artificial recharge of aquifers. Limited assessment of changing importance over time – seasonal variations or longer-term climate change.
	0 marks Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

4. Examine reasons for changes in the atmospheric carbon store over time. Content: 2.1.6, 2.1.9	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
	10			8			**18**

Indicative Content

This question requires candidates to demonstrate their ability to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.
The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

AO1
AO1 content encompasses knowledge and understanding of the concept of change within the global carbon cycle.
Development of this may include:

- Appreciation of scale: i.e. short-term and local vis à vis long-term and continental (seconds to millennia)
- Understanding of short-term processes to include fossil fuel combustion, carbon sequestration and photosynthesis, respiration and decomposition (interdependence, resilience, systems, sustainability and thresholds)
- Understanding of the relationship between recent increases in the atmospheric carbon store and the energy budget

AO2
Candidates demonstrate application of knowledge and understanding through an examination of the reasons for changes in the atmospheric carbon store. Responses may include:

- Examination of the **relative importance** of various factors affecting recent increases in the atmospheric carbon store e.g. fossil fuel combustion, human activity (land use change), carbon sequestration and photosynthesis, respiration and decomposition (mitigation)
- Examination of changing importance over time – seasonal variations or longer-term changes (scale)
- Discussion of **relative importance** of human and physical reasons for change

Marking guidance

Near the upper end, answers that score highly will show application of knowledge and understanding by **evaluating** complex, interlinked factors, synthesising information, and may come to rational conclusions (dependent on the different causes of recent increases in the atmospheric carbon store and time-frames that are included).

Responses in the middle range will show some application of knowledge and understanding to provide some evaluating and synthesis, and may draw partially supported conclusions.

Near the lower end, responses provide very limited application of knowledge and understanding of changes in the atmospheric carbon store over time to provide little evaluation.

Credit other valid approaches.

Award the marks as follows:		
Band	**AO1 (10 marks)**	**AO2.1c (8 marks)**
	Demonstrates knowledge and understanding of the factors affecting the atmospheric carbon store.	*Applies knowledge and understanding to appraise through an examination of a range of factors affecting the atmospheric carbon store.*
3	**7-10 marks** Mostly accurate knowledge and understanding of the factors affecting the atmospheric carbon store. Developed exemplification. Well annotated sketches / diagrams may be used. Spelling, punctuation and grammar used with a high degree of accuracy.	**6-8 marks** Well-developed and structured examination of how a range of factors can affect the atmospheric carbon store e.g. processes between land and atmosphere, and processes between ocean and atmosphere.
2	**4-6 marks** Partial knowledge and understanding of the impact of the factors affecting the atmospheric carbon store. Generalised exemplification. Simple sketches / diagrams may be used. Spelling, punctuation and grammar used with a reasonable degree of accuracy.	**4-5 marks** Partial or unbalanced examination of how a range of factors can affect the atmospheric carbon store e.g. processes between land and atmosphere, and processes between ocean and atmosphere.
1	**1-3 marks** Limited knowledge and understanding of the factors affecting the atmospheric carbon store Limited exemplification. Basic sketches / diagrams may be used. Spelling, punctuation and grammar used with limited degree of accuracy.	**1-3 marks** Limited examination of how a range of factors can affect the atmospheric carbon store e.g. processes between land and atmosphere, and processes between ocean and atmosphere.
	0 marks Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

Section B: Global Governance: Change and Challenges

5. (a) Suggest how economic factors may have affected people's attitudes towards immigration in countries such as those shown in **Figure 3.** Content: 2.2.3	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
			5				**5**

Indicative content

AO2 content includes suggesting economic reasons why attitudes vary for different EU countries such as those shown.

- Some countries depending on migrant labour for their prosperity may approve - an example being Germany
- Countries benefiting from remittances may approve more of migration in general, for example eastern European nations
- Countries with higher unemployment may disapprove of free movement
- Countries with lower GDP/GNI may approve of migration if it bolsters economy

Marking guidance

Near the upper end, answers that score well will make sustained and specific reference to the resource provided, making an explicit comparison of how attitudes vary. Near the lower end, answers will display limited use of the resource with limited or no comparison.

Award the marks as follows:

		AO2.1b (5 marks)
Band	**Marks**	
2	**4-5**	Well-developed and structured evaluation of how **economic factors** may have affected the attitudes towards immigration, making coherent use of data from the resource to support the answer. Two or more countries must be considered for Band 2.
1	**1-3**	Partial or unbalanced evaluation of how **economic factors** may have affected the attitudes towards immigration, making some use of data form the resource to support the answer, more pertinent use of data towards the top of the band.
	0	Response not creditworthy or not attempted.

5. (b) Outline **two** political factors that can affect the volume of migration. Content: 2.2.2, 2.2.3	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
Award 1 mark and up to 2 development marks for each valid factor	4						**4**

Indicative content

Likely AO1 content includes a range of possible political factors affecting immigration, emigration, Candidates may refer to migration within the EU or worldwide.

- Political decision to join supra-national institutions such as the EU requires acceptance of free movement
- Political decisions /conflict can give rise to refugee flows
- Political factors can affect countries where visas are required / not required
- There may be humanitarian principles for governments to uphold e.g. refugees

Credit other valid approaches. Discussion of one factor only – max. 3

6. (a) Use **Figure 4** to describe changes in the balance of maritime power. Skills: 3.6	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
Award 1 mark for each valid point					3		**3**

Indicative content

Likely AO3 content includes identifying variability in warships / maritime power of the two countries.

- USA was strongest 1997-2006 (1 mark)
- China now has most around 170 (1 mark)
- China has risen from least to most (1 mark)
- Allow one mark for use of data e.g. USA had 350 warships in 1970, USA and China had equal numbers of warships in 2006-7, China had approx. 30 in 1970 and approx. 170 by 2011. USA and China had equal numbers of warships in 2006.

6. (b) Outline how state sovereignty over islands can become a source of geopolitical tension. Content: 2.2.8	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
	5						**5**

Indicative content

Likely AO1 content links the islands with geopolitical tensions (actual conflict or political disagreement)

- Tension arises when two or more states claim the same island
- Or one state may claim an island close to another state's territorial waters
- This can lead to conflicting views over whose jurisdiction some areas of ocean fall under due to EEZ / UNCLOS rules
- This was seen during the Falklands conflict between UK and Argentina in 1980s
- And more recently the South China Sea (China, Philippines, Indonesia, Japan)
- Role of resources in and beneath territorial waters

Marking Guidance

One case study will suffice for full marks.

7. Assess the importance of poverty as a cause of economic migration. Content: 2.2.2	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
	10			8			**18**

Indicative Content

This question requires candidates to demonstrate their ability to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.
The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

AO1
AO1 content encompasses knowledge and understanding of poverty as a driver for migration. Development of this may include:

- Poverty drives economic migration as migrants elect to migrate in order to find employment or secure greater wealth and affluence elsewhere (causality)
- Movements from world's poorest countries are rooted in extreme poverty while movements from emerging economies can be explained in terms of relative poverty e.g. Poland to UK after 2004
- Other factors mentioned in the specification as factors driving international economic migration are primary commodity prices and poor access to markets within global systems are. Both are interlinked with poverty (globalisation, resilience and causality)
- Candidates may also demonstrate knowledge and understanding of other factors such as development of diaspora communities, colonial and Commonwealth links and legislation permitting freedom of movement; and influence of powerful superpowers including political strategies to develop cities as global hubs for investment and migration (globalisation)
- Candidates may wish to draw on content from 2.2.4 relating to refugees as a result of economic injustices such as land grabs (globalisation)

AO2
Candidates demonstrate application of knowledge and understanding through an assessment of the extent to which poverty is most important driver of economic migration. Responses may include:

- Assessment of the relative importance of poverty as a driver of economic migration e.g. candidates could discuss other factors that may be more important e.g. political factors (globalisation, causality)
- Assessment of varying importance of poverty as a driver of economic migration over space e.g. many of the world's poorest do not have access to transport or the required funds to migrate whereas economic migration is more likely amongst higher earners. (globalisation, resilience, causality)
- Assessment of varying importance of poverty as a driver of economic migration over time e.g. the growth of technology affecting transport and communication has become a more important factor in recent years (globalisation)

Marking guidance

Near the upper end, answers that score highly at will show application of knowledge and understanding by **evaluating** complex, interlinked technologies, synthesising information, and may come to rational conclusions (dependent on the types of migration and time-frames that are included).

Responses in the middle range will show some application of knowledge and understanding to provide some evaluating and synthesis, and may draw partially supported conclusions.

Near the lower end, responses provide very limited application of knowledge and understanding of poverty as a cause of economic migration to provide little evaluation.

Credit other valid approaches.		
Award the marks as follows:		
	AO1 (10 marks)	**AO2.1c (8 marks)**
Band	*Demonstrates knowledge and understanding of the importance of poverty as a cause of economic migration.*	*Applies knowledge and understanding to appraise through assessing the importance of poverty as a cause of economic migration.*
3	**7-10 marks** Mostly accurate knowledge and understanding of the importance of poverty as a cause of economic migration. Developed exemplification. Well annotated sketches / diagrams may be used. Spelling, punctuation and grammar used with a high degree of accuracy.	**6-8 marks** Well-developed and structured evaluation of poverty as a cause of *economic* migration. Well-developed and structured evaluation of interlinked factors such as fluctuations in primary commodity prices and poor access to markets within global systems as a cause of economic migration. Well-developed and structured evaluation of other factors affecting the causes of migration.
2	**4-6 marks** Partial knowledge and understanding of the impact of the importance of poverty as a cause of economic migration. Generalised exemplification. Simple sketches / diagrams may be used. Spelling, punctuation and grammar used with a reasonable degree of accuracy.	**4-5 marks** Partial or unbalanced evaluation of poverty as a cause of economic migration. Partial or unbalanced evaluation of interlinked factors such as fluctuations in primary commodity prices and poor access to markets within global systems as a cause of economic migration. Partial or unbalanced evaluation of other factors affecting the causes of economic migration.
1	**1-3 marks** Limited knowledge and understanding of the importance of poverty as a cause of economic migration. Limited exemplification. Basic sketches / diagrams may be used. Spelling, punctuation and grammar used with limited degree of accuracy.	**1-3 marks** Limited evaluation of poverty as a cause of economic migration. Limited evaluation of interlinked factors such as fluctuations in primary commodity prices and poor access to markets within global systems as a cause of economic migration. Limited evaluation of other factors affecting the causes of economic migration.
	0 marks Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

8. Assess the success of strategies to manage marine environments sustainably. Content: 2.2.9	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
	10			8			**18**

Indicative Content

This question requires candidates to demonstrate their ability to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.
The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

AO1
AO1 content encompasses knowledge and understanding of international (UN/EU) efforts to manage marine environments. Development of this may include:

- International rules on fishing e.g. EU quotas to combat over-fishing including no-catch zones, regional quota limits and marine conservation zones (causality)
- Actions to uphold EEZ/UNCLOS e.g. tackling illegal fishing in territorial waters
- Changing perspectives on managing the oceans as a 'global commons' (sustainability)
- Changing attitudes towards the oceans (risk and causality)
- The impact of population growth, rising affluence and the need to avoid over-exploitation of natural resources (mitigation)
- The impact of fish-stock collapse for different societies (risk and resilience)

AO2
Candidates demonstrate application of knowledge and understanding through an assessment of the success of these efforts. Responses may include:

- An assessment of the success of controls on fishing e.g. slow recovery of cod in the North Sea
- An assessment of the success or failure of international attempts to help refugees arriving by sea (when millions remain homeless and lives are lost crossing Mediterranean)
- An assessment of the mixed success of attempts to manage piracy e.g. fewer incidents near Somalia but more near Asia
- An assessment of the extent to which aims are achieved in some contexts but problems persist overall
- An assessment of whether mitigation of problems can take place or merely adaptation (e.g. tackling poverty or conflict in East Africa to reduce piracy and refugee flows)
- An assessment of the changing perspectives on managing the oceans as a global commons
- An assessment of the changing attitudes towards the oceans
- An assessment of the impact of population growth, rising affluence and the need to avoid over-exploitation of natural resources
- An assessment of the impact of fish-stock collapse for different societies
- An assessment of the successful impact of strategies at different scales (local to global)

Marking guidance

Near the upper end, answers that score highly will show application of knowledge and understanding by **evaluating** detailed and possibly interlinked actions, synthesising information, and may come to rational conclusions (dependent on the issue contexts that are included).

Responses in the middle range will show some application of knowledge and understanding to provide some discussion and synthesis, and may draw partially supported conclusions.

Near the lower end, responses provide very limited application of knowledge and understanding of strategies to manage marine environments sustainably to provide little evaluation.

Credit other valid approaches.

Award the marks as follows:		
	AO1 (10 marks)	**AO2.1c (8 marks)**
Band	*Demonstrates knowledge and understanding of efforts to manage long-term global growth and sustainability in marine environments*	*Applies knowledge and understanding to appraise through assessing the successes of efforts to manage long-term global growth and sustainability in marine environments*
3	**7-10 marks** Mostly accurate knowledge and understanding of efforts to manage long-term global growth and sustainability in marine environments. Developed exemplification. Well annotated sketches / diagrams may be used. Spelling, punctuation and grammar used with a high degree of accuracy.	**6-8 marks** Well-developed and structured assessment of the successes of efforts to promote long-term global growth and sustainability in marine environments.
2	**4-6 marks** Partial knowledge and understanding of efforts to manage long-term global growth and sustainability in marine environments. Generalised exemplification. Simple sketches / diagrams may be used. Spelling, punctuation and grammar used with a reasonable degree of accuracy.	**4-5 marks** Partial or unbalanced assessment of the successes of efforts to promote long-term global growth and sustainability in marine environments.
1	**1-3 marks** Limited knowledge and understanding of efforts to manage long-term global growth and sustainability in marine environments. Limited exemplification. Basic sketches / diagrams may be used. Spelling, punctuation and grammar used with limited degree of accuracy.	**1-3 marks** Limited assessment of the successes of efforts to promote long-term global growth and sustainability in marine environments.
	0 marks Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

Section C: 21st Century Challenges

9. Discuss the view that fewer people will live in rural areas in the future.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
	10			10	6		**26**

Indicative Content

Within the answer to question 9, candidates should use the maps in Figures 5, 6, 7, and 8 and apply their knowledge and understanding from across the whole specification in order to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.
The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

AO1
Candidates should demonstrate knowledge and understanding of the changes shown in Figures 5-8 or other changes studied as part of the course. This may include:

- Demographic changes and trends in some rural areas e.g. rural-urban (inequality and interdependence)
- Recent changes and their causes e.g. counter-urbanisation and rural regeneration (equilibrium)
- The effects of a changing climate and water/carbon flows on ecosystem productivity including agricultural production (adaptation, resilience, sustainability, systems and thresholds)
- Economic trends in urban areas and their implications for rural areas (resilience, mitigation and risk)
- Tectonic hazards in some rural areas e.g. Italy (risk and resilience)

AO2
Candidates should demonstrate application of knowledge and understanding through discussion of the importance of human and physical causes. This may include:

- Assessment of whether rural population trends in 2014 may continue or even accelerate
- Assessment of the severity of the climate change scenario shown and whether even more extreme scenarios exist than that shown in Figure 7
- Assessment of whether climate change may create opportunities in addition to challenges
- Assessment of whether greater rural protection measures could further limit human activities
- Assessment of spatial variations in trends (some areas may have fewer people; other may gain more)

AO3
This may include:

- Analysis of what is meant by rural areas (identity)(Figure 5)
- Analysis of current demographic changes and their possible future implications (thresholds) (Figure 6)
- Analysis of possible future rainfall changes and their implications (risk) (Figure 7)
- Analysis of the extent of protection offered to rural areas by national parks and the implications of this for settlement (sustainability) (Figure 8)
- Synthesis of the Figures e.g. identifying rural areas where greatest future climate and possible demographic changes are shown (mitigation, risk and resilience)(Figures 5, 6, and 7)

Marking guidance

The question requires progress beyond explaining changes and causes. At the upper end, answers that score highly will show application of knowledge and understanding by assessing the likelihood of rural population decline, synthesising information, and coming to **rational conclusions** which draw across the Specification.

Responses in the middle range will show some application of knowledge and understanding to provide some assessment and synthesis from across the specification, prior to drawing **partially supported conclusions**.

Lower end responses provide very limited application of knowledge and understanding of rural population decline to provide little assessment.

Credit any other valid approaches.

Award the marks as follows:			
	AO1 (10 marks)	**AO2.1c (10 marks)**	**AO3 (6 marks)**
Band	*Knowledge and understanding of reasons why fewer people might live in rural areas in the future.*	*Apply AO2.1c to assess the reasons why fewer people might live in rural areas in the future.*	*Apply AO3 to analyse the factors affecting the distribution of people living in rural areas seen in Figures 5-8.*
3	**8-10 marks** Mostly accurate knowledge and understanding of reasons why fewer people might live in rural areas in the future. Developed exemplification.	**8-10 marks** Well-developed and structured assessment of the reasons why fewer people might live in rural areas in the future.	**5-6 marks** Well-developed analysis of the factors affecting the distribution of people living in rural areas in Figures 5-8. Detailed use of data. Well-annotated sketches / diagrams may be used. Spelling, punctuation and grammar used with a high degree of accuracy.
2	**4-7 marks** Partial knowledge and understanding of reasons why fewer people might live in rural areas in the future. Generalised knowledge of examples.	**4-7 marks** Partial or unbalanced assessment of the reasons why fewer people might live in rural areas in the future.	**3-4 marks** Partial or unbalanced analysis of the factors affecting the distribution of people living in rural areas in Figures 5-8. Generalised use of data. Simple sketches / diagrams may be used. Spelling, punctuation and grammar used with a reasonable degree of accuracy.
1	**1-3 marks** Limited knowledge and understanding of reasons why fewer people might live in rural areas in the future. Limited exemplification.	**1-3 marks** Limited assessment of the reasons why fewer people might live in rural areas in the future.	**1-2 marks** Limited analysis of the factors affecting the distribution of people living in rural areas in Figures 5-8. Limited or no use of data. Basic sketches / diagrams may be used. Spelling, punctuation and grammar used with limited accuracy.
	0 marks Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

10. To what extent can rural areas be protected from change?	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
	10			10	6		**26**

Indicative Content

Within the answer to question 10, candidates should use the maps in Figures 5, 6, 7, and 8 and apply their knowledge and understanding from across the whole specification in order to develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured.
The indicative content is not prescriptive and candidates are not expected to cover all points for full marks. Credit other valid points not contained in the indicative content.

AO1

Candidates should demonstrate knowledge and understanding of the changes shown in Figures 5-8 or other changes studied as part of the course. This may include:

- The demographic changes which are linked with out- or in-migration e.g. ageing population (adaptation and interdependence)
- The economic changes which are linked with migration e.g. shop closures (resilience and thresholds)
- The effects of climate change on water and carbon cycling (mitigation, risk and resilience)
- The effects of climate change on ecosystems and landscapes (mitigation, sustainability, risk and resilience)
- The role of national parks or other protection measures in preventing rural change (mitigation and sustainability)

AO2

Candidates should demonstrate application of knowledge and understanding through evaluation of the extent to which rural areas can be protected. Responses may include:

- The extent to which population trends seen in 2014 may continue or whether counter-urbanisation or urbanisation trends might reverse
- The extent to which the EU and other areas will continue to allow free movement which may affect rural change
- The extent to which demographic and economic change is preventable if thresholds have been crossed in terms of settlement decline
- The extent to which climate change can be prevented through mitigation; or whether even more extreme scenarios exist than that shown in Figure 7
- The extent to which prevention/protection measures can be enforced or work at a large enough scale e.g. national parks

AO3

This may include:

- Analysis of what is meant by rural areas (identity) (Figure 5)
- Analysis of possible precipitation changes by 2100 (mitigation, risk and sustainability) (Figure 7)
- Analysis of demographic changes taking places in 2014 and their implications. (Figure 6)
- Analysis of the extent of protection offered to rural areas by national parks (Figure 8)
- Synthesis of the Figures e.g. identifying rural areas where greatest rainfall and demographic changes are shown (threshold, resilience, mitigation and risk) (Figures 5, 6, and 7)

Marking guidance

The question requires candidates to progress beyond explaining changes and possible prevention measures. At the upper end, answers that score highly will show application of knowledge and understanding by evaluating the extent to which rural areas can be protected/managed to prevent change, synthesising information, and coming to **rational conclusions** which draw across the Specification.

Responses in the middle range will show some application of knowledge and understanding to provide some evaluation and synthesis from across the specification, prior to drawing **partially supported conclusions**.

Lower end responses provide very limited application of knowledge and understanding of rural change to provide little evaluation.

Credit any other valid approaches.

Award the marks as follows:			
	AO1 (10 marks)	**AO2.1c (10 marks)**	**AO3 (6 marks)**
Band	*Knowledge and understanding of change in rural areas seen in Figures 5-8, and any additional changes.*	*Apply AO2.1c to assess how rural areas can be protected from change.*	*Apply AO3 to analyse the distribution of changes to rural areas seen in Figures 5-8.*
3	**8-10 marks** Mostly accurate knowledge and understanding of a wide range of changes and how they can be prevented in rural areas. Developed exemplification.	**8-10 marks** Well-developed and structured assessment of the nature of change in rural areas and how such changes might be prevented.	**5-6 marks** Well-developed analysis of rural changes shown in Figures 5-8. Detailed use of data. Well-annotated sketches / diagrams may be used. Spelling, punctuation and grammar used with a high degree of accuracy.
2	**4-7 marks** Partial knowledge and understanding of a range of changes and how they can be prevented in rural areas. Generalised knowledge of examples.	**4-7 marks** Partial or unbalanced assessment of the nature of change in rural areas and how such changes might be prevented.	**3-4 marks** Partial or unbalanced analysis of rural changes shown in Figures 5-8. Generalised use of data. Simple sketches / diagrams may be used. Spelling, punctuation and grammar used with a reasonable degree of accuracy.
1	**1-3 marks** Limited knowledge and understanding of some changes and how they can be prevented in rural areas. Limited exemplification.	**1-3 marks** Limited assessment of the nature of change in rural areas and how such changes might be prevented.	**1-2 marks** Limited analysis of rural changes shown in Figures 5-8. Limited or no use of data. Basic sketches / diagrams may be used. Spelling, punctuation and grammar used with limited accuracy.
	0 marks Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.