GCE A LEVEL MARKING SCHEME

SUMMER 2019

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

INTRODUCTION

This marking scheme was used by WJEC for the 2019 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 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 component 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. Annotations must reflect the mark awarded for the question. 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. This is followed by 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 component. The targeted AO(s) are also indicated, for example AO2.1c.

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.

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 Stage 1 – Deciding on the band
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), the qualities of each mark band will be discussed in detail. 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 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 mark scheme reflects the layout of the examination paper. Mark all questions in Section A, and Section B.

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) (i) Using **Figure 1**, state the rainfall intensity at Grizzly Peak. Skills: 3.6	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
					1		**1**

Indicative content

Correct answer is 18mm/hr (1); accept answers between 17mm/hr and 19mm/hr.

(ii) Suggest **one** reason for the use of a logarithmic scale to display these data. Skills: 3.6	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
Allow 1 mark for any of the following points to a maximum of 2 marks.					2		**2**

Indicative content

A **logarithmic scale** is a nonlinear scale **used** when there is a large range/distribution of data (1) enables a range of data to be accommodated in a manageable graph (1).
In this context, it allows data from 1 to 80 mm on the rainfall axis (1) and 0.4 to 22 hours on the duration axis (1).
This data could not be easily presented using an arithmetic scale where all points are equally spaced (1).

Marking guidance

Credit other valid points.

(b) Explain **two** causes of overland flow in a drainage basin system. Content: 3.1.2	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
	5						**5**

Indicative content

Overland flow can occur after either **high duration** or **intense rainfall**. After high duration rainfall which may occur over a lengthy period of time, all soil layers become saturated and throughflow is deflected closer and closer to the surface. Meanwhile, infiltration-excess overland flow occurs when rainfall intensity is so great that not all the water can infiltrate, irrespective of how dry or wet the soil was prior to the rainfall event.

In addition to specification content, candidates may identify human causes of overland flow e.g. increased amounts of impermeable surfaces or deforestation. This approach is creditworthy.

Marking guidance

Credit other valid approaches.

Award the marks as follows:

Band	Marks	
3	**4-5**	Comprehensive explanation of two causes of overland flow.
2	**2-3**	Partial explanation of the causes of overland flow or one cause comprehensively explained.
1	**1**	Describes the causes of overland flow.
	0	Response not creditworthy or not attempted.

2. (a) Suggest two reasons for variations in the size of carbon stores in **Figure 2.** Content: 3.1.7	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
			5				**5**

Indicative content

Candidates are expected to be familiar with three physical factors affecting plant growth and therefore carbon storage within different biomes: temperature, precipitation and light.

Temperature: Areas with high average annual temperatures e.g. Tropical Rainforest (25°C and 30°C) will experience year-round growth and carbon sequestration, meanwhile areas further from the equator, temperatures will be lower and thus growth and carbon sequestration will be more limited.

Precipitation: Rainfall is a vital factor contributing to rate of plant growth and therefore biomass carbon storage.

Light: The amount of light will affect rates of photosynthesis, which affect the plant's ability to grow and therefore carbon sequestration. The sun's rays are affected by latitude and consequently there is significant seasonal variation in higher latitudes (e.g. Tundra), meanwhile little seasonal variation in equatorial regions (e.g. Tropical Rainforest).

Credit other valid points.

Award the marks as follows:

Band	Marks	
3	**4-5**	Suggestions show sound understanding of reasons for variations in the size of carbon stores and there is clear application to the resource.
2	**2-3**	Two suggestions demonstrating understanding of reasons for variations in the size of carbon stores applied to the resource i.e. reference to specific biomes from the diagram may be unbalanced.
1	**1**	Largely descriptive of the resource, tentative suggestions for reasons for the variations in the size of carbon stores shown in the different biomes in the resource.
	0	Response not creditworthy or not attempted.

(b) Outline **two** ways in which human activity can lead to changes in the size of the carbon store in the tropical rainforest. Content: 3.1.7	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
Award up to 2 marks for the identification of two ways. For full marks, both ways must be developed.	4						**4**

Indicative content

Specification identifies land-use change (deforestation, afforestation and agricultural activity) as the human activities affecting the size of carbon stores; candidates should select any two of these.

Deforestation (1): this removes the carbon biomass store and therefore reduces the inputs of organic matter into the soil and, therefore, carbon sequestration. Similarly increased overland flow as a result of deforestation can result in soil erosion and the permanent loss of carbon storage capacity.

Afforestation (1): this involves planting trees in deforested areas or areas that have never been forested. The new trees act as carbon sinks.

Agricultural activity (1): agriculture affects both biomass carbon storage of land and the amount of soil organic carbon (made up of humus, i.e. decomposed plant and animal materials) that is present. For instance, clearing natural vegetation for agriculture brings a large reduction in SOC levels (soil organic carbon), further exacerbated by poor management practices. Additionally, excessive cultivation using inappropriate methods has resulted in soils being overworked. Finally, soil erosion as a result of 'Dust Bowl'-style conditions leads to a loss of soil carbon storage capacity. Credit reference to agricultural activity resulting in increased carbon storage, e.g. crop management, pasture management or organic amendments (use of animal amendments or recycled plant remains).

Marking Guidance

Credit other valid points.

3. Examine the role of human factors in the generation of excess runoff. Content: 3.1.4	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 role of human causes in the generation of excess runoff as well as other causes of excess runoff.
Development of this may include:

- Knowledge and understanding of changing land use and its impact on the generation of excess runoff, for example the impact of urbanisation (e.g. Cockermouth or Carlisle) and / or deforestation (e.g. Ganges / Brahmaputra river basins resulting in flooding in Bangladesh)
- Knowledge and understanding of river mismanagement and its role in the generation of excess runoff/flooding e.g. the Somerset Levels or the Pakistan floods
- Knowledge and understanding of other contributing factors such as prolonged precipitation, intense storms, monsoon rainfall and snowmelt with reference to appropriate exemplification of each cause discussed, clearly linked to generation of excess runoff.

AO2
To access AO2 marks, candidates must demonstrate application of knowledge and understanding through discussion of the extent to which **human causes** play a role in excess runoff generation. Responses may include:

- Examination of the relative importance of different human factors affecting excess runoff generation
- Examination of the importance of other factors such as prolonged precipitation, intense storms, monsoon rainfall and snowmelt, that may be more important than human causes
- Examination of changing importance of factors over time/space e.g. seasonal variations or longer-term changes
- Examination of specialised concepts to include causality (changes within the water cycle), mitigation (to maintain equilibrium) and resilience (of the system), amongst others.

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 excess runoff generation that are included in the answer).

Responses in the middle range will show some application of knowledge and understanding to examine factors causing excess runoff generation to provide some examination and synthesis, and may draw partially supported conclusions.

Near the lower end, responses provide very limited application of knowledge and understanding of human causes of excess runoff generation and limited (if any) examination of other factors affecting excess runoff generation.

Credit other valid approaches.

Award the marks as follows:		
	AO1 (10 marks)	**AO2.1c (8 marks)**
	Demonstrates knowledge and understanding of the factors affecting excess runoff generation.	*Applies knowledge and understanding to appraise through examining the importance of a range of factors affecting excess runoff generation.*
3	**7-10 marks** Mostly accurate knowledge and understanding of human and physical factors affecting excess runoff generation. 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 human and physical factors can affect excess runoff generation.
2	**4-6 marks** Partial knowledge and understanding of the impact of of human and physical factors affecting excess runoff generation. 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 human and physical factors can affect excess runoff generation.
1	**1-3 marks** Limited knowledge and understanding of the human and physical factors affecting excess runoff generation. 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 human and physical factors can affect excess runoff generation.
0	**0 marks** Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

4. Examine how carbon pathways and processes vary over time. Content: 3.1.6	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 carbon pathways and processes.
Development of this may include:

- Knowledge and understanding of carbon pathways and processes between land and atmosphere: fossil fuel combustion, carbon sequestration and photosynthesis, respiration and decomposition
- Knowledge and understanding of factors affecting carbon pathways and processes between ocean and atmosphere: absorption by biota, diffusion into and out of oceans
- Knowledge and understanding of carbon pathways and processes between land and oceans: through weathering of rocks on land by carbonation, the role of river transport as well as indirect movement via the water cycle and carbon sequestration in sediments.

AO2
Candidates demonstrate application of knowledge and understanding through an examination of the extent to which carbon pathways and processes vary over time. Responses may include:

- Examination of variations within these flows **over time** e.g. land/atmosphere where photosynthesis processes operate unevenly throughout the day and year and respiration processes vary throughout the day and year in particular places. Rates of decomposition also increase over time where temperatures increase, increasing amounts of CO_2 released
- Credit examination of the **short-term/fast** nature of pathways between land and atmosphere and the relatively slow exchanges between atmosphere and ocean e.g. the relatively **slow downwelling** of carbon molecules to great depths of oceans where they may remain for **centuries**. Credit also an examination of the **long-term/slow** carbon cycle flows between land and the ocean as a result of weathering of rocks on land by carbonation as well as indirect movement via the water cycle and carbon sequestration in sediments **over millions of years**
- Examination of specialised concepts to include adaptation (to maintain equilibrium), causality (changes within the carbon cycle), feedback (within the carbon cycle), mitigation (to maintain equilibrium) and resilience (of the system), amongst others.

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 carbon pathways and processes and how they vary over the both short- and long-time scales 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 different carbon pathways and processes to provide little discussion.

Credit other valid approaches.

Award the marks as follows:		
	AO1 (10 marks)	**AO2.1c (8 marks)**
	Demonstrates knowledge and understanding of carbon pathways and processes.	*Applies knowledge and understanding to appraise through examination the variations over time in carbon pathways and processes.*
3	**7-10 marks** Mostly accurate knowledge and understanding of the factors affecting the carbon pathways and processes. 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 variation in carbon pathways and processes over time.
2	**4-6 marks** Partial knowledge and understanding of the impact of the factors affecting carbon pathways and processes. 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 variation in carbon pathways and processes over time.
1	**1-3 marks** Limited knowledge and understanding of the factors affecting carbon pathways and processes. 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 variation in carbon pathways and processes over time.
0	**0 marks** Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

Section B: Global Change and Challenges

5 (a) Use **Figure 3** to describe the global distribution of the Indian diaspora. Skills: 3.2	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
Allow 1 mark for any of the following points to a maximum of 3 marks. One mark may be awarded for accurate use of data from the map.					3		**3**

Indicative content

The map is a choropleth map and thus shows the concentration of the Indian diaspora country by country.

The Indian diaspora are widely dispersed across the world (1) with the highest geographical concentration in North America (1). More significant numbers found in the northern hemisphere (1). There are significant numbers of the Indian diaspora in south east Asia, the Middle East and North America (1).
In Europe, the UK has the largest Indian population (1,000,001 - 2,900,000 people) (1)
South America is the content with the lowest Indian population (1) (only Guyana and Suriname have more than 22,001) (1)
In Africa, the Indian population reside mostly in South Africa (1) with lower numbers in Nigeria, Kenya and Tanzania. (1)

Marking guidance

For full marks, candidates should support statements with exemplification derived from the map, although accurate knowledge of named countries is not expected. A series of unrelated statements with no global overview of distribution gains no credit however, do credit reference to Commonwealth states.

Credit other valid points.

(b) Outline **one** way in which superpowers may influence flows of international migrants. Content: 3.2.2	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
	5						**5**

Indicative content

Candidates are expected to appreciate that powerful states exert influence and disproportionately attract or deter international migrants to their own advantage (cheap labour, lax H&S or environmental legislation), for example the USA has had significant influence over South and Central American nations in their desire to realise the 'American Dream'. Would-be migrants may be influenced by new technologies such as Facebook.

In identifying **one way**, candidates may refer to political strategies to develop cities as global hubs for investment and migration e.g. city states such as Dubai have used the cheap labour provided by foreign migrants to develop their infrastructure and thus to enable them to become a regional superpower. In the UK, some migrants are specifically targeted to be returned home (government's "hostile environment" initiative).

Marking guidance

There is no definitive list of 'superpowers' and arguably, currently only the USA; hence need to give reasonable scope for candidates to consider a range of potential superpowers. To go beyond Band 1, candidates must go beyond describing why important states such as the UK and USA are attractive to migrants.

Candidates may also consider the role of populist geography to include a range of perspectives on this issue.

Credit other valid approaches.

Award the marks as follows:

Band	Marks	
3	**4-5**	Sound explanation of influence of superpowers and of why these nations (UK and USA) would have a disproportionate influence on migration. For full marks, one way should be fully developed.
2	**2-3**	Explains the characteristics of superpowers that would influence global flows in a partially-developed way.
1	**1**	Describes the attraction of superpowers to potential migrants.
	0	Response not creditworthy or not attempted.

6 (a) Suggest **two** consequences of the exploitation of marine ecosystems for countries reliant on fish such as those shown in **Figure 4**. Content: 3.2.9	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
				5			**5**

Indicative content

Candidates are expected to suggest **two** consequences of over-exploitation of marine ecosystems and could link ideas portrayed by the map to their own knowledge relating to the global commons.

The map suggests that there is a correlation between countries most reliant on fish and those projected to experience the biggest decrease in marine catch potential. A consequence of this is the need for sustainable management in order to meet the needs of communities' food source and potential income from fishing.

Relevant consequences could include:

- Loss of employment in local fishing industries and decreasing incomes
- Food insecurity and rising prices
- Those involved in fishing industry could turn to alternative sources of income (including crime) to compensate for the loss of income
- Environmental consequences such as negative impacts on local food webs leading to a long-term damaging effect on the marine ecosystem.

Candidates may show an understanding that as a potential result of the 'global commons', a lack of ownership risks lack of management because no one is directly responsible if commons become degraded, polluted or in this case, over-exploited.

Marking guidance

Candidates must go beyond description of the map in order to move beyond Band 1.

Credit other valid approaches.

Award the marks as follows:

Band	Marks	
3	**4-5**	Sound understanding of two specific consequences of the exploitation of marine ecosystems, demonstrating an understanding of the need for sustainable management. Both consequences must be fully developed for full marks.
2	**2-3**	Appreciation of the consequences of the exploitation of marine ecosystems, answer may be unbalanced in its recognition of **two** consequences.
1	**1**	Description of the map, limited awareness of the consequences of the exploitation of marine ecosystems.
	0 marks	Response not creditworthy or not attempted.

(b) Outline **two** causes of ocean pollution. (4) Content: 2.2.10	AO1	AO2.1a	AO2.1b	AO2.1c	AO3		**Total**
Award up to 2 marks for the identification of two causes. For full marks, both causes must be developed.	4						**4**

Indicative content

The causes of ocean pollution identified in the specification are terrestrial run-off, waste disposal and oil spillage, eutrophic dead-zones and plastic garbage patches. The largest source of ocean pollution is plastic at approx. 90% of all rubbish.

Marking guidance

Credit other valid approaches / ideas.

7. Examine the success of actions to tackle refugee movements. Content: 3.2.3 and 3.2.4	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 (causes, consequences and) management of international economic migration and the (causes, consequences and) management of refugee movements.

Development of this may include:

- Knowledge and understanding of actions to tackle refugee crises at a variety of scales including the work of UNHDR, national governments and NGOs and thus the challenges associated with the management of refugee migrations
- Awareness of the powerlessness of some states in conflict or disaster zones in relation to flows of refugees, and thus the challenges associated with the management of such refugee migrations.

AO2
Candidates demonstrate application of knowledge and understanding through discussion of management of refugee movements. Responses may include:

- Examination of the successes and failures associated with actions to tackle refugee movements at different scales. Candidates may recognise the complexity of the causes and consequences of refugee movements leading to the difficulties of managing them
- Examination of changing actions toward refugee migrations over time; for example, the Syrian conflict and associated refugee movements could affect government priorities and lead to more successful management in future
- Examination of success of management of refugee movements in contrast to other forms of migration (i.e. international economic migration)
- Candidates may discuss the following specialised concepts in their answers: causality (drivers of global patterns of migration), globalisation (links between countries), risk (associated with refugees), and resilience (ability of neighbouring countries to cope with refugees).

Marking guidance

The focus of the question is about management of refugees, but it is expected that candidates will place the management of refugee movements in the context of the causes of these movements and the consequences and challenges that occur as a result of them.

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 regarding the successful management of refugee movements.

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 the complexities of managing refugee movements.

Credit other valid approaches.

Award the marks as follows:		
	AO1 (10 marks)	**AO2.1c (8 marks)**
	Demonstrates knowledge and understanding of actions to tackle refugee movements).	*Applies knowledge and understanding to examine the success of actions to manage refugee movements.*
3	**7-10 marks** Mostly accurate knowledge and understanding of different actions to tackle refugee movements. 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 the success of different actions to tackle refugee movements. Answer clearly appreciates the extent of the complexity involved in managing refugee movements successfully.
2	**4-6 marks** Partial knowledge and understanding of different actions to manage refugee movements. 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 the success of different actions to tackle refugee movements. Answer shows passing awareness of the extent of the complexity involved in managing refugee movements successfully.
1	**1-3 marks** Limited knowledge and understanding of different actions to manage refugee movements. Limited exemplification. Basic sketches / diagrams may be used. Spelling, punctuation and grammar used with limited degree of accuracy.	**1-3 marks** Limited examination of the success of different actions to tackle refugee movements. Answer shows limited (implied) appreciation of the extent of the complexity involved in managing refugee movements successfully.
0	**0 marks** Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

8. Examine why the ownership of ocean resources sometimes leads to international conflicts. Content: 3.2.8	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 sovereignty (ownership) of ocean resources and of geopolitical tensions that may lead to international conflict.
Development of this may include:

- Appreciation of the distribution and ownership of major ocean resources including minerals and fossil fuels, (e.g. oil reserves in the Canada's North West Passage) including the establishment and reproduction of territorial limits and sovereign rights that benefit some states but not others e.g. EU fishing quotas in the North Sea: (causality) instability of sovereignty in ocean environments and risk to the sustainability of fish stocks
- Awareness of geopolitical tensions including the contested ownership of islands e.g. the Spratly Islands where ownership is contested between China, Taiwan, Malaysia, the Philippines and Vietnam and surrounding sea beds (e.g. China's island 'creation' in the South China Sea) and attempts to establish ownership of Arctic Ocean resources (e.g. Russia's creation of a new military base in the Arctic) :(causality) instability of sovereignty in ocean environments and risk to the sustainability of ocean environments.

AO2
Candidates demonstrate application of knowledge and understanding through discussion of the extent to which the sovereignty (use) of ocean resources **leads to** the development of international conflicts. Responses may include:

- Examination of why ownership of ocean resources may cause geopolitical tension in some areas and not others
- Examination of why ownership of ocean resources may cause long-term geopolitical tension in some areas e.g. South China Sea
- Examination of why the global commons e.g. the Arctic Ocean's reserves of oil may cause geopolitical tension between nations as stakeholders involved rush to claim Arctic resources
- Examination of the injustices for indigenous people e.g. in Alaska where native people earn a living from fisheries and where they oppose gold mining developments in Bristol Bay and the extent to which this may cause geopolitical tension
- Candidates may discuss the following specialised concepts in their answers: causality (instability in ocean environments), globalisation (links between countries), mitigation (attempts to manage the global commons), risk (to ocean environments), and sustainability (management of ocean environments.

Marking guidance

Near the upper end, answers that score highly will show application of knowledge and understanding by examining complex, interlinked factors, synthesising information, and may come to rational conclusions relating to the extent to which international conflicts might occur over the use of ocean resources.

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

Near the lower end, responses provide very limited application of knowledge and understanding of the conflicting nature of these issues.

Credit other valid approaches.

Award the marks as follows:		
	AO1 (10marks)	**AO2.1c (8 marks)**
	Demonstrates knowledge and understanding of sovereignty (ownership) of ocean resources and of international conflicts.	*Applies knowledge and understanding to appraise through examination the reasons why international conflicts might occur over the ownership of ocean resources.*
3	**7-10 marks** Mostly accurate knowledge and understanding of sovereignty (ownership) of ocean resources and of international conflicts. 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 why international conflicts might occur over the ownership of ocean resources.
2	**4-6 marks** Partial knowledge and understanding of sovereignty (ownership) of ocean resources and of international conflicts. 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 why international conflicts might occur over the ownership of ocean resources.
1	**1-3 marks** Limited knowledge and understanding of sovereignty (ownership) of ocean resources and of international conflicts. Limited exemplification. Basic sketches / diagrams may be used. Spelling, punctuation and grammar used with limited degree of accuracy.	**1-3 marks** Limited examination of why international conflicts might occur over the ownership of ocean resources.
0	**0 marks** Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

Section C – 21st Century Challenges (synoptic exercise)

Mark **either** question 9 **or** 10

9. Discuss the view that migration leads to positive changes to the characteristics of places.	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 resources 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 content includes knowledge and understanding of causes and consequences of migration and the associated impacts on the characteristics of places.This may include:

- Causes of migration e.g. poverty, globalisation or natural disasters/conflict
- Consequences of migration e.g. changes/impacts on both source and host places
- Varying changes over time in the characteristics of places resulting from migration e.g. economic, social, cultural or environmental.

AO2 requires candidates to demonstrate application of knowledge and understanding through discussion of the varying changes to the characteristics of places (social/cultural, environmental, economic) brought about by migration:

- Discussion of the relative significance of different positive changes identified e.g. cultural diversity or increased economic contributions by migrants
- Discussion of negative impacts vis à vis positive impacts e.g.whether migration leads to more positive impacts than negative ones e.g. despite economic contributions of migrants there may well be short-term challenges associated with initial re-settlement. Candidates could also discuss the benefits/challenges associated with increasing cultural diversity brought by increased migration
- Discussion of whether migration impacts similarly on the characteristics of all places or whether spatial variation/distance decay is evident
- Discussion of the scale of challenges in rural / urban areas
- Discussion of the likely rate of future migrations and the associated changes.

AO3 may include:

- Analysis of the data showing increase in international migration (Figure 5)
- Analysis of the impact of economic migrants and / or refugees on the economic and cultural characteristics of traditional inner-city/urban places (Figure 6 and 8)
- Analysis of natural disasters and conflict as potential causes of internal displacement in different countries (Figure 7)
- Synthesis of the figures e.g. identifying positive and negative impact of migration on characteristics of places in the short- and long-term (Figures 5,6,7 and 8).

Credit other valid approaches.

Marking guidance

The question requires that candidates' progress beyond explaining positive and negative impacts of migration. At the upper end, answers that score highly will show application of knowledge and understanding to evaluate the changes to the characteristics of different places as a result of migration. Candidates will synthesise information provided in the resources and come 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 the impacts of migration to provide little assessment.

Award the marks as follows:			
	AO1 [10 marks]	**AO2.1c [10 marks]**	**AO3 [6 marks]**
Band	*Knowledge and understanding of the consequences of migration leading to changes in the characteristics of places.*	*Apply AO2.1c to critically discuss the consequences of migration.*	*Apply AO3 to analyse Figures 5-8 to identify the impact of migration on the characteristics of places.*
3	**8-10 marks** Mostly accurate knowledge and understanding of consequences of migration and the impact of these on the characteristics of places. Developed exemplification.	**8-10 marks** Well-developed and structured discussion of the consequences of migration and the impact of these on the characteristics of places.	**5-6 marks** Well-developed analysis of 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 consequences of migration and the impact of these on the characteristics of places. Generalised knowledge of examples.	**4-7 marks** Partial or unbalanced discussion of the consequences of migration and the impact of these on the characteristics of places.	**3-4 marks** Partial or unbalanced analysis of 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 consequences of migration and the impact of these on the characteristics of places. Limited exemplification.	**1-3 mark** Limited discussion of the consequences of migration and the impact of these on the characteristics of places.	**1-2 marks** Limited analysis of Figures 5-8. Limited or no use of data. Basic sketches / diagrams may be used. Spelling, punctuation and grammar used with limited accuracy.

10. Discuss the view that the causes of migration are mainly human.	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 content includes knowledge and understanding of the causes of migration.This may include:

- Human causes of migration f.e. changing perception of places (and the opportunities they may create), poverty and technological change. The impact of globalisation and global events on communities may be a cause of international migration
- Causes may be physical f.e. floods, earthquakes and drought.

AO2 requires candidates demonstrate application of knowledge and understanding through discussion of the extent to which migrations are a result of human causes. Responses may include:

- Discussion of the relative importance of different human causes as drivers of migration
- Discussion of the relative importance of physical and human causes as drivers of migration
- Discussion of the likelihood that physical and human causes may be interrelated e.g.disaster-induced displacements are the result of human induced causes
- Discussion of spatial or temporal variations in trends (some migrations may have largely physical or human causes or causes may change over time).

AO3 may include:

- Analysis of the data showing increase in international migration (Figure 5)
- Analysis of the likely human and / or physical causes of migration in Cardiff (Figure 6)
- Analysis of the human and / or physical causes of internal displacement of people (Figure 7)
- Analysis of the human and / or physical causes of economic migrations and / or refugees movements that have led to changes in traditional inner-city places (Figure 8)
- Synthesis of the figures e.g. relative human and physical causes of migrations (Figures 5,6,7 and 8).

Credit any other valid approaches.

Marking guidance

The question requires candidates progress beyond explaining changes and causes. At the upper end, answers that score highly will show application of knowledge and understanding by assessing the extent to which international migration has mainly human or physical causes, 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 of the extent to which international migration has mainly human or physical causes, synthesising ideas from across the specification, prior to drawing **partially supported conclusions**.

Lower end responses provide very limited application of knowledge and understanding of either human or physical causes of international migration thereby providing limited assessment.

Award the marks as follows:			
	AO1 [10 marks]	**AO2.1c [10 marks]**	**AO3 [6 marks]**
Band	*Knowledge and understanding of the human and / or physical causes of migration.*	*Apply AO2.1c to critically discuss the human and / or physical causes of migration.*	*Apply AO3 to analyse Figures 5-8 to identify the human and / or physical causes of migration.*
3	**8-10 marks** Mostly accurate knowledge and understanding of the human and / or physical causes of migration. Developed exemplification.	**8-10 marks** Well-developed and structured discussion of the human and / or physical causes of migration.	**5-6 marks** Well-developed analysis of 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 the human and / or physical causes of migration. Generalised knowledge of examples.	**4-7 marks** Partial or unbalanced discussion of the human and / or physical causes of migration.	**3-4 marks** Partial or unbalanced analysis of 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 the human and / or physical causes of migrations. Limited exemplification.	**1-3 mark** Limited discussion of the human and / or physical causes of migrations.	**1-2 marks** Limited analysis of Figures 5-8. Limited or no use of data. Basic sketches / diagrams may be used. Spelling, punctuation and grammar used with limited accuracy.