GCE A LEVEL MARKING SCHEME

SUMMER 2024

A LEVEL
GEOGRAPHY – COMPONENT 2
A110U20-1

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About this marking scheme

The purpose of this marking scheme is to provide teachers, learners, and other interested parties, with an understanding of the assessment criteria used to assess this specific assessment.

This marking scheme reflects the criteria by which this assessment was marked in a live series and was finalised following detailed discussion at an examiners' conference. A team of qualified examiners were trained specifically in the application of this marking scheme. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners. It may not be possible, or appropriate, to capture every variation that a candidate may present in their responses within this marking scheme. However, during the training conference, examiners were guided in using their professional judgement to credit alternative valid responses as instructed by the document, and through reviewing exemplar responses.

Without the benefit of participation in the examiners' conference, teachers, learners and other users, may have different views on certain matters of detail or interpretation. Therefore, it is strongly recommended that this marking scheme is used alongside other guidance, such as published exemplar materials or Guidance for Teaching. This marking scheme is final and will not be changed, unless in the event that a clear error is identified, as it reflects the criteria used to assess candidate responses during the live series.

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GCE A LEVEL GEOGRAPHY

COMPONENT 2: GLOBAL SYSTEMS AND GLOBAL GOVERNANCE

SUMMER 2024 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 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.

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.

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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 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

Where the specialised concepts are integral to knowledge and understanding, they are underlined in the indicative content.

The mark scheme reflects the layout of the examination paper. Mark questions 1, 2 and, either 3 or 4 in Section A. Mark questions 5, 6 and, either 7 or 8 in Section B. Mark one question in Section C.

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.

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Section A: Global Systems – Water and Carbon Cycles

1. (a) (i) Use **Figure 1** to identify the maximum number of years that drought can be managed using groundwater.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
Award the marks as follows:					1	**1**

Indicative content

- 1 mark for identification of 50 years

1. (a) (ii) Use **Figure 1** to calculate the percentage of **all** southern African farmland where groundwater is currently used for irrigation. Write the answer in your booklet. Show your working.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
Award the marks as follows:					2	**2**

Indicative content

- 1 mark for workings that make use of 3% and 1/20 'one twentieth' (5%).
- 1 mark for the correct answer.

For example: 1/20 of the 3% farmland area [1 mark] equals 0.15% [1 mark].
For example 3/20 [1 mark] = 0.15 [1 mark]
For example: 3/100 x 5 [1 mark] = 0.15 [1 mark]

1. (a) (iii) Use **Figure 1** to outline **one physical** reason why sustainable use of some aquifers is not possible.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
Award the marks as follows:					2	**2**

Indicative content

- 1 mark for the basic physical reason why sustainable use is not possible, i.e. the water is used faster than it can be replaced / too quickly / is irreplaceable.
- 1 mark for further outlining of the reason that is based on Figure 1, i.e. water is not naturally replaceable across human timescales / it is deep 'fossil' water from millions of years ago / agriculture firms pump water for irrigation.

For example: Some aquifers are not refilled when rain falls [1 mark]. Therefore they will eventually run dry if water is removed [1 mark].
For example: Cities in the Middle East pump water from deep underground aquifers [1 mark] too quickly [1 mark].
For example: Companies use water for irrigation [1 mark] at a faster rate than it can be physically replaced [1 mark].

Marking guidance
The idea of unsustainable should be implied but does not need to be explicit. Award 1 mark for 'they are using it too quickly' / 'faster than it can be replaced'.

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1. (b) Outline the causes of **seasonal** water shortages in one or more areas you have studied.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
	5					**5**

Indicative content

Likely AO1 content includes outlining of:

- seasonal variability of depressions / weather fronts in the UK, with lower incidence in summer, coinciding with higher temperatures and higher evaporation. Additional seasonal human pressures include high levels of water use in populated areas during the onset of dry conditions e.g. abstraction for summer crops / domestic use in hot weather. As a result of these causes, water shortages and lower reservoir levels are more likely in summer.
- extreme seasonal shortages have arisen - for example southern England or the wider UK during exceptional years of summer drought (1976, 2022). Physical causes include extended anticyclonic weather conditions and movements of the jet stream, resulting in a lack of normal frontal rainfall. Climate change may make such conditions more likely/probable.
- seasonal variability in precipitation in temperate grassland areas of the world, in continental interiors where distance from the sea naturally gives rise to semi-arid conditions, and seasonal movement of tropical high pressure are a cause of low summer rainfall.
- seasonal water shortages are also a feature of ENSO (El Niño) cycles.

Credit any other valid points.

Marking guidance

Near the upper end, answers that score well will clearly outline reasons for seasonal water shortages in one or more areas/contexts. Answers using one example only will provide a more detailed outline of the reason(s) for shortages. Answers using two or more contexts will give a greater range of less detailed reasons.

Near the lower end, answers will show limited knowledge and understanding of one or two causes. **May only make generalised statements about low rainfall or high temperatures in different seasons**. Do not credit impacts of water shortages. Outlining of longer-term water shortages due to climate change can be credited in Band 2 if appropriate understanding of hydrology is evident.

Award the marks as follows:

Band	Marks	
3	**4-5**	Clear outlining of the causes of seasonal water shortages in one or more areas. Applies breadth or depth of clear knowledge and understanding of water cycle processes and/or connections.
2	**2-3**	Partial outlining of the causes of seasonal water shortages in one or more areas. Partial or partially accurate knowledge and understanding of water cycle processes and/or connections.
1	**1**	Limited or no outlining of the causes of seasonal water shortages. Limited or no knowledge and understanding of water cycle processes and/or connections.
	0	Response not creditworthy or not attempted.

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2. (a) (i) Use **Figure 2** to analyse the pattern of ground temperature changes.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
					5	**5**

Indicative content

AO3 content includes analysing the data shown in **Figure 2**, which shows temperature changes in Alaskan permafrost over a 40-year period for 15 sites of varying latitude and distance from sea.

- overall, temperatures are rising (in 14/15 sites)
- provides supporting data e.g. ranges from +3.3 in Deadhorse to -0.1 in Livengood
- Livengood is unusual as the change is negative
- pattern of higher changes at higher latitude: changes for sites south of Old Man are all below 1 C.
- provides supporting evidence from map (Figure 2b) e.g. changes range from 1.6-3.3 C in Northern Alaska (which begins around 69N according to Figure 2a)
- changes are over a 40-year period, thus Deadhorse is warming at almost 0.1 C per year.

Marking guidance

Near the upper end, answers that score well will make sustained and specific reference to the pattern of change. Supporting data from the map and table are used selectively and/or manipulated in aid of the analysis.

Near the lower end, answers will display limited use of the resources with limited or no overview of the overall pattern of change.

Award the marks as follows:

Band	Marks	
3	**4-5**	Well-developed and clear analysis of the pattern of temperature changes. Sustained use/manipulation of both Figures to support a clear analysis.
2	**2-3**	Partial or unclear analysis of the pattern of temperature changes. Some use of data to support a partial or unclear analysis.
1	**1**	Limited analysis of any clear temperature changes. Little use of data to support the analysis.
	0	Response not creditworthy or not attempted.

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2 (a) (ii) Suggest how positive feedback could play a role in the changes in **Figure 2**.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
		5				**5**

Indicative content

Likely AO2 applied knowledge and understanding content should focus on the role of positive feedback and the amplification of temperature changes shown in Figure 2. Credit logical connections established between, for example, permafrost thawing, methane release and enhanced warming during the 40-year period.

- thawing of Arctic permafrost releases methane, a potent greenhouse gas.
- this in turn leads to greater warming and even more thawing.
- as the ground warms, it may mean that snow cover melts quicker each spring; this would mean less light reflected and more warming of the ground, as part of a second feedback loop.
- the data shown cover a 40-year period and changes may have been non-linear. Limited warming in 1980-2010, for example, might have been followed by faster warming in more recent years.

Credit any other valid points.

Marking guidance

Near the upper end, answers that score highly will make more detailed suggestions/explanations using appropriate carbon and water cycle terminology and concepts, as shown in the example answers above. They will explain methane feedback but may also introduce additional ideas, such as albedo changes or non-linear warming.

Near the lower end, answers will show limited knowledge and understanding of positive feedback. The answer may consist solely of a partial or inaccurate description of methane release.

Award the marks as follows:

Band	Marks	
3	**4-5**	Well-developed suggestion(s) of the role played by positive feedback in permafrost thawing and temperature change in Arctic regions. Applies developed knowledge and understanding of the carbon cycle.
2	**2-3**	Partial suggestions about the role of positive feedback in permafrost thawing and temperature change in Arctic regions. Some application of knowledge and understanding of the carbon cycle.
1	**1**	One or two limited suggestions about positive feedback or Arctic changes. Fragmented or no applied knowledge and understanding.
	0	Response not creditworthy or not attempted.

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3. To what extent do forests store more water and carbon than grassland areas? Suggested focus: see AO1	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
	10			10		**20**

Indicative content

This 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 will provide a description and explanation of water and carbon storage in contrasting forest and grassland areas. The focus should be upon different types of storage, and their size, including any changes over time. This could include;

- vegetation and catchment hydrology, including the vegetation interception store (2.1.2)
- size of carbon stores (vegetation, soil, litter) in the tropical rainforest (550 Gtc globally) and in temperate grassland areas (2.1.7)
- seasonal or longer-term changes in carbon storage in these two global biomes, e.g. seasonal dieback of grassland vegetation (2.1.7)
- global patterns of carbon and water storage (2.1.1) including peat soils (2.1.8) with a focus on the presence of forest or grassland vegetation.
- carbon and water stores at the local scale (2.1.9), including changes humans may have brought.

AO2
Candidates demonstrate application of knowledge and understanding through synthesis (relationships and connections) and evaluation. This may include;

- discussion of the extent to which forests will always store more water (interception store and biomass store) than grasslands
- discussion of the extent to which grasslands can store carbon in the soil rather than as biomass, especially during winter
- discussion of the extent to which a range of soil and biomass store sizes exists for different types of forest and grassland, for example winter forest leaf fall in local UK contexts
- reflection on links, connections and interdependence between the two cycles
- reflection on whether the statement must always be true (or not) or is dependent on seasons and longer-term changes over other timescales (due to natural and/or human factors).

Near the upper end, answers that score highly will show application of knowledge and understanding by explaining and discussing complex ideas and evidence, synthesising information, and coming to rational conclusions which discuss water and carbon storage using varying criteria and perspectives. Likely to discuss specific types of forest and grassland.

Responses in the middle range will show some application of knowledge and understanding to provide some discussion and synthesis, prior to drawing partially supported conclusions. May discuss forests and grasslands in general without focus on specific types.

Near the lower end, responses provide very limited application of knowledge and understanding of physical systems to provide little or no discussion of the statement.

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Award the marks as follows:		
	AO1 (10 marks)	**AO2.1c (10 marks)**
Band	*Description and explanation of water and carbon cycle stores in forests and grasslands.*	*Discussion of the extent to which forest stores are larger than grassland stores.*
3	**7-10 marks** Demonstrates detailed and accurate knowledge and understanding of all elements of the question. Makes use of appropriate and well-developed examples and may include well-annotated diagram(s).	**7-10 marks** Applies knowledge and understanding of forests and grasslands in order to thoroughly and coherently discuss store sizes. Balanced coverage of the main issues leading to substantiated conclusions.
2	**4-6 marks** Demonstrates accurate knowledge and understanding of most elements of the question. Makes some use of examples and may include simple diagram(s).	**4-6 marks** Applies knowledge and understanding to produce a coherent but partial discussion. Applies knowledge and understanding of water and carbon cycles in a partially balanced way.
1	**1-3 marks** Demonstrates limited knowledge and understanding of some element of the question. Makes limited or no use of examples and may include a simple diagram.	**1-3 marks** Applies knowledge and understanding to produce a limited discussion. Applies knowledge and understanding of water and carbon cycles in an unbalanced way (one may be absent).
	0 marks Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

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4. To what extent can local water and carbon flows change in size during a 24-hour period? Suggested focus: see AO1	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
	10			10		**20**

Indicative content

This 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 will provide a description and explanation of short-term / 24-hour / diurnal changes in water and carbon cycle flows in varying contexts. This may include:

- changes in precipitation amount, type and intensity (2.1.2, 2.1.4)
- water cycle flow / store responses to changing precipitation including excess runoff (2.1.2, 2.1.4)
- storm hydrographs showing day-to-day changes in river discharge (2.1.3)
- short-term variations in carbon pathways and processes such as daily photosynthesis (2.1.6)
- intra-day changes in ecosystem structure and functioning e.g. deforestation events (2.1.7).

AO2
Candidates demonstrate application of knowledge and understanding through synthesis and evaluation. This may include:

- discussion of the extent to which daily water and carbon cycle changes are to be expected (e.g. day-time and night-time variations in evaporation and transpiration, photosynthesis)
- discussion of the extent to which water cycle changes occur unexpectedly in a short time e.g. flash flooding
- discussion of the extent to which carbon cycle changes occur unexpectedly in a short time e.g. loss of vegetation due to extreme weather or land use change; tectonic activity
- reflection on the scale or significance of any changes
- reflection on the extent to which either water or carbon flows show greatest variability or unpredictability.

Near the upper end, answers that score highly will show application of knowledge and understanding by discussing complex evidence and ideas, synthesising information, and coming to rational conclusions about short-term / diurnal changes, using varying contexts and perspectives. The contexts are likely to be detailed local case studies e.g. a named UK woodland.

Responses in the middle range will show some application of knowledge and understanding to provide some discussion and synthesis, prior to drawing partially supported conclusions. The contexts are more likely to be global biomes with the phrase ‘local part of…’.

Near the lower end, responses provide very limited application of knowledge and understanding of physical systems to provide little or no discussion of the statement.

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Award marks as follows:		
	AO1 (10 marks)	**AO2.1c (10 marks)**
Band	*Description and explanation of water and carbon cycle contexts and flows.*	*Discussion of the extent to which diurnal changes in flows can occur.*
3	**7-10 marks** Demonstrates detailed and accurate knowledge and understanding of all elements of the question. Makes use of appropriate and well-developed examples and may include well-annotated diagram(s).	**7-10 marks** Applies knowledge and understanding of water and carbon cycles to thoroughly and coherently discuss diurnal changes. Balanced coverage of the main issues leading to substantiated conclusions.
2	**4-6 marks** Demonstrates accurate knowledge and understanding of most elements of the question. Makes some use of examples and may include simple diagram(s).	**4-6 marks** Applies knowledge and understanding to produce a coherent but partial discussion. Applies knowledge and understanding of water and carbon cycles in a partially balanced way.
1	**1-3 marks** Demonstrates limited knowledge and understanding of some element of the question. Makes limited or no use of examples and may include a simple diagram.	**1-3 marks** Applies knowledge and understanding to produce a limited discussion. Applies knowledge and understanding of water and carbon cycles in an unbalanced way (one may be absent).
	0 marks Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

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Section B: Global Governance – Change and Challenges

5. (a) (i) Use **Figure 3** to analyse trends in global flows since 2001.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
					5	**5**

Indicative content

Likely AO3 analysis content will include comparisons of the three trends and manipulation of the data in order to highlight evidence of acceleration, or otherwise.

- on the one hand, there is a significant increase in global data flows, rising to almost 210% of the initial 2001 value. Initially, the rate of increase is uneven but since 2016 it has risen steadily, supporting a view that global flows and systems are still growing.
- on the other hand, trade flows have fallen from a peak of around 116 in 2008 to around 109 in 2021. However, the value remains higher than in 2001.
- the capital flow trend is hard to characterise because it is very erratic. It has fallen below its 2001 value twice, in 2002 and 2008 but always recovers quickly. It may have peaked in 2017 at 126 and has fallen since, although in 2020 it rose briefly.
- overall, the figure suggests that global flows have all grown since 2001 although trade and capital have recently stalled/slowed while information flows are rising steeply.
- the graph shows indexed data, not actual figures, and so we cannot tell the relative importance of the flows in terms of their value.

Marking guidance

At the upper end, answers that score well will thoroughly analyse all three trends and draw comparisons and contrasts. **They will do more than describe/list each flow in turn** and **will provide an analytical overview** of what the figure shows about global flows over the 20-year period.

Near the lower end, answers will offer simple observations about each of the lines with little if any use of supporting data.

Award the marks as follows:

Band	Marks	
3	**4-5**	A well-developed and clear analysis of the trends in **Figure 3**. Wide and selective use of data as evidence.
2	**2-3**	A partial or unclear analysis of the trends in **Figure 3**. Partial or unselective use of data as evidence.
1	**1**	Limited statement(s) about **Figure 3**. Little or no use of evidence.
	0	Response not creditworthy or not attempted.

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5 (a)(ii) Suggest reasons for the changes shown for **one** flow in **Figure 3**.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
		5				**5**

Indicative content

Likely AO2 applied knowledge and understanding content should focus on one flow only in Figure 3. Credit logical connections established between the trade, data or investment trends in Figure 3 and factors affecting global system growth over time including data use, migrant remittances, economic and political factors (government policies) and the pandemic.

- data flows have increased as technological improvements / shrinking world technologies have been developed and used by people. Rising affluence in emerging economies has meant more users of data. Growth of large MNCs like Apple and Amazon has resulted in greater dependence on these companies and their products. Covid-19 pandemic required remote working.
- global money flows include migrant remittances which have grown over time but with slowdowns during financial crisis 2008 and Covid-19 pandemic 2020 when many migrants returned home. MNC investment also slowed during these periods, for example less investment in supply chains and processing zones.
- global trade flows have increased partly due to rising affluence in emerging economies. Growth of large food and commodity MNCs has increased trade flows. However, slowdowns during financial crisis 2008 and pandemic 2020 when consumers may have bought less. Supply chain bottlenecks and rising prices have reduced trade recently, along with protectionism and conflict.

Credit any other valid points.

Marking guidance

Near the upper end, answers that score highly will make more **detailed** suggestions/explanations about their chosen flow, as shown in the example answers above.

Near the lower end, answers will show limited knowledge and understanding of their chosen flow. The answer may consist solely of **partial or generalised reasons** with little real-world evidence.

Award the marks as follows:

Band	Marks	
3	**4-5**	Well-developed and well-evidenced suggested reasons for the changes shown in one global flow. Applies developed knowledge and understanding of globalisation / global systems.
2	**2-3**	Partial or generalised suggested reasons for the changes shown in one global flow. Some application of knowledge and understanding of globalisation / global systems.
1	**1**	One or two limited suggestions to explain changes in one global flow. Fragmented or no applied knowledge and understanding.
	0	Response not creditworthy or not attempted.

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6. (a) Use **Figure 4** to analyse the distribution and ownership of fossil fuel resources.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
					5	**5**

Indicative content

Likely AO3 analysis content will include a spatial analysis of where fossil fuel deposits are found, and how this distribution corresponds with patterns of ownership determined by territorial boundaries.

- there are significant resources in the southern waters of the North Sea (gas), mid-way between the UK and Scandinavia (oil) and in the far north close to a group of islands (Shetland)
- the overall pattern of ownership is highly uneven, with most oil lying in UK waters, just westward of the dividing line / ownership boundary.
- the southern gas field is shared between UK, Netherlands and Germany (a minor share)

Marking guidance

At the upper end, answers that score well will analyse the whole resource with clarity and precision, added together, the three bullet points (above) provide a guide to what might be expected at the very top of the mark range. At full marks, expect a response that addresses both distribution and ownership in a reasonably balanced way.

Near the lower end, answers will display limited engagement with the data in Figure 4 or lack clarity in their description of the geographical distribution between northern, southern, eastern and western parts of the North Sea.

Award the marks as follows:

Band	Marks	
3	**4-5**	A well-developed, clear and balanced analysis of the distribution and ownership of oil and gas shown in **Figure 4**. Wide use of information about territorial boundaries shown in **Figure 4**.
2	**2-3**	A partial or unclear analysis of the distribution and/or ownership of oil and gas shown in **Figure 4**. Partial use of information about territorial boundaries shown in **Figure 4**.
1	**1**	Limited statement(s) about the distributions shown in **Figure 4**. Little or no use of information about territorial boundaries.
	0	Response not creditworthy or not attempted.

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6. (b) Outline the international rules that help decide who owns different ocean resources.	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
	5					**5**

Indicative content

Likely AO1 content will include knowledge of the laws and agreements which determine territorial limits and sovereign rights over different ocean resources. They key understandings are as follows, although some candidates may have learned more complex and detailed rules, which should be credited.

- Territorial waters – within 12 nautical miles of the shoreline, all resources are the sovereign territory of the state. This includes biotic (living) and non-living (seabed or below) resources.
- The United Nations Convention on the Law of the Sea (UNCLOS) additionally defines an Exclusive Economic Zone (EEZ) typically extending 200 nautical miles from shore. Within the EEZ, the coastal state may exploit living and non-living resources.
- Extended continental shelf – states may assert ownership of seabed resources up to 350 nautical miles from the shoreline on the continental shelf; but they cannot claim ownership of fish and other living organisms in the water above the seabed in this zone.
- where two or more EEZs overlap, a median line can be drawn to partition resource ownership.
- role of islands is important – in addition to its own coastal waters, some states claim an EEZ around islands (e.g. the UK and the Falkland Islands).
- High Seas – these are a global common outside the sovereignty of a single country.

Marking guidance

Near the upper end, answers will show detailed knowledge and understanding of global governance.

Answers near the lower end may have very little specific knowledge and understanding of different rules, agreements or types of resource.

Award the marks as follows:

Band	Marks	
3	**4-5**	Developed and accurate outlining of international territorial rules. Sustained focus on the ownership of different ocean resources.
2	**2-3**	Partial or inaccurate outlining of international territorial rules. Partial focus on the ownership of different ocean resources.
1	**1**	Limited or no outlining of international territorial rules. Limited /no focus on the ownership of different ocean resources.
	0	Response not creditworthy or not attempted.

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7. Evaluate the importance of ocean transport in the growth of global diaspora communities. Suggested focus: see AO1	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
	10			10		**20**

Indicative content

This 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 will provide a description and explanation of the actions and influence of superpower states over global governance and global issues. This may encompass:

- an overview of what it means to belong to a diaspora community (2.2.2)
- ocean transport, the UK's past role as a maritime power and its links with diaspora growth (2.2.6)
- ocean data flows, and the importance of the shrinking world effect for the growth and survival of diaspora networks (2.2.7 and 2.2.1)
- EU freedom of movement until 2020 and the acceleration of diaspora growth in the UK (2.2.2)
- causes of international refugee movements, such as recent Syrian and Ukrainian crises (2.2.4).

AO2.
Candidates demonstrate application of knowledge and understanding through synthesis and evaluation. This may include:

- evaluation of the extent to which ocean transport was essential for the past establishment of some of the UK's largest and most enduring diaspora including Windrush Generation
- evaluation of the extent to which ocean transport during UK's maritime past was the key factor facilitating the growth of European diaspora populations in Global South countries in colonial times
- evaluation of the extent to which other contemporary factors are of equal or greater importance in diaspora growth e.g. EU rules and conflict in Ukraine
- reflection on factors that allow migration to occur (transport) as opposed to factors allowing established diaspora to communicate across distance
- reflection on the relative importance of different factors for example in different historical eras.

Near the upper end, answers that score highly will show application of knowledge and understanding by explaining complex evidence and ideas, synthesising and evaluating information about global diaspora and particular growth factors and coming to rational conclusions about the role of ocean transport. Do not expect balance between ocean transport and other factors.

Responses in the middle range will show some application of knowledge and understanding of diaspora growth to provide some evaluation and synthesis, prior to partially supported conclusions.

Near the lower end, responses provide very limited application of knowledge and understanding of the main issues/ideas to provide little or no evaluation of the statement.

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Award the marks as follows:		
	AO1 (10 marks)	**AO2.1c (10 marks)**
Band	*Description and explanation of global disapora communities.*	*Evaluation of the role of different factors including ocean transport in diaspora growth.*
3	**7-10 marks** Demonstrates detailed and accurate knowledge and understanding of all elements of the question (expect a good balance between ocean governance and migration content at *top end* of this band). Makes use of appropriate and well-developed examples and may include well-annotated diagram(s).	**7-10 marks** Applies knowledge and understanding to thoroughly and coherently evaluate different factors and/or issues. Balanced coverage of the main issues leading to substantiated conclusions.
2	**4-6 marks** Demonstrates accurate knowledge and understanding of most elements of the question. Makes some use of examples and may include simple diagram(s).	**4-6 marks** Applies knowledge and understanding to produce a coherent but partial evaluation. Applies knowledge and understanding in a partially balanced way.
1	**1-3 marks** Demonstrates limited knowledge and understanding of some element of the question. Makes limited or no use of examples and may include a simple diagram.	**1-3 marks** Applies knowledge and understanding to produce a limited evaluation. Applies knowledge and understanding in an unbalanced way.
	0 marks Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

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8. Evaluate the importance of economic migration and ocean pollution as issues that affect the interdependence of countries. Suggested focus: see AO1	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
	10			10		**20**

Indicative content

This 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 will provide a description and explanation of the ways in which economic migration and ocean pollution issues (either the pollution flow itself, or the need for better global governance of the pollution) help link countries closer together. This could include:

- flows of people and remittances, creating links between countries (2.2.1 and 2.2.3)
- increased economic, social, political and environmental interdependency of host and source countries (2.2.3)
- sources and consequences of ocean pollution and the role of ocean currents (2.2.10)
- international and global actions to manage marine waste (2.2.10)
- the concepts of the Global Commons and sustainability (2.2.9)

AO2
Candidates demonstrate application of knowledge and understanding through synthesis and evaluation. This may include:

- evaluation of the relative importance of the two issues, based on the contexts used
- evaluation of the importance of different kinds of links between countries (economic, social, political and environmental)
- evaluation of other possible issues that have even greater bearing on interdependence and interconnectivity such as the internet and shrinking world (do not credit as AO1)
- reflection on how migration may create links between two neighbouring countries while ocean pollution fosters truly global interdependence
- reflection on the way ocean pollution / Global Commons management may be a more long-lasting cause of global connectivity than some temporary migration flows

Near the upper end, answers that score highly will show application of knowledge and understanding by explaining complex ideas, synthesising and evaluating information about migration and ocean pollution, and coming to rational conclusions about their role in creating links.

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

Near the lower end, responses provide very limited application of knowledge and understanding of the issues and concepts to provide little or no evaluation of the statement.

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Award the marks as follows:		
	AO1 (10 marks)	**AO2.1c (10 marks)**
Band	*Description and explanation of economic migration and ocean pollution.*	*Evaluation of importance of the issues & their effect on interdependence of countries.*
3	**7-10 marks** Demonstrates detailed and accurate knowledge and understanding of all elements of the question. Makes use of appropriate and well-developed examples and may include well-annotated diagram(s).	**7-10 marks** Applies knowledge and understanding to thoroughly and coherently evaluate the importance of both issues. Balanced coverage of the main issues leading to substantiated conclusions.
2	**4-6 marks** Demonstrates accurate knowledge and understanding of most elements of the question. Makes some use of examples and may include simple diagram(s).	**4-6 marks** Applies knowledge and understanding to produce a coherent but partial evaluation. Applies knowledge and understanding in a partially balanced way.
1	**1-3 marks** Demonstrates limited knowledge and understanding of some element of the question. Makes limited or no use of examples and may include a simple diagram.	**1-3 marks** Applies knowledge and understanding to produce a limited evaluation. Applies knowledge and understanding in an unbalanced way.
	0 marks Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

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Section C: Challenges of the 21st Century

9. 'Governments are powerless to manage the causes and effects of migration.' Discuss. Suggested focus: see AO1	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
	8			12	10	**30**

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.

AO3 may include:

- analysis and interpretation of land grab injustices as a cause of forced migration shown in Figure 5
- analysis and interpretation of the causal links between climate change and migration in Figure 6
- analysis and interpretation of the government controls on migration shown in Figure 7
- analysis and interpretation of the urban population changes (and implied migration) shown in Figure 8
- synthesis of Figures e.g. possibility that people displaced by injustices (Figures 5 and 6) might encounter barriers if attempting to migrate internationally (Figure 7).

AO1 content includes knowledge and understanding of the migration causes and effects shown or implied in Figures 5-8, or other relevant content studied as part of the course, including C1 and C3 options. This may include:

- how population growth in UK urban areas may be a product of international and also internal migration, causally linked with a range of changing place factors, including regeneration schemes (C1 – changing places)
- the power of multinational corporations (MNCs) and the governance of land grab / ownership issues (C2 – global migration)
- national migration policies and global governance (international laws / rules) in relation to refugees (C2 – global migration and global governance)
- global causes of increasing atmospheric carbon storage, and the role of national governments and global governance in climate change mitigation (C2 – water and carbon cycles).

AO2 requires candidates demonstrate application of knowledge and understanding through an evaluation of the power of governments to manage migration (causes and effects). Responses may include:

- evaluation of the extent to which governments have power to limit or increase migration
- evaluation of the extent to which governments have power to manage the effects of migration, for example the resettlements of refugees or managing increasingly multicultural societies
- evaluation of the extent to which governments are finding it increasingly harder to manage migration for example because of shrinking world technologies
- reflecting critically on the root causes of migration, ranging from climate change to land grabs, and the power of national governments or intergovernmental organisations to manage these root causes
- reflecting critically using other specialised geographic concepts such as risk of feedback (shown in Figure 6).

The question requires that candidates progress beyond describing different migration causes, effects and policies. At the upper end, answers that score highly will show application of knowledge and understanding by critically evaluating each of the contexts they choose to write about, 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 possible causes/effects/policies to provide little evaluation.

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Award the marks as follows:			
	AO1 [8 marks]	**AO2.1c [12 marks]**	**AO3 [10 marks]**
Band	*Knowledge & understanding of the causes & effects of migration*	*Evaluation of the power of governments in relation to migration processes*	*Specific ideas, issues and information in Figures 5-8; extended writing skills.*
3	**7-8 marks** Demonstrates detailed and accurate knowledge and understanding of all elements of the question. Makes use of appropriate and well-developed examples and may include well-annotated diagram(s).	**9-12 marks** Applies knowledge and understanding to produce a coherent, thorough and sustained evaluation. Applies knowledge and understanding of Specification themes in a broad and well-balanced way.	**8-10 marks** Well-developed analysis of Figures 5-8 with sustained detailed use of data. Well-constructed, coherent and logical arguments and substantiated conclusions.
2	**4-6 marks** Demonstrates accurate knowledge and understanding of most elements of the question. Makes some use of examples and may include simple diagram(s).	**5-8 marks** Applies knowledge and understanding to produce a coherent but partial evaluation. Applies knowledge and understanding of Specification themes in a narrower and partially balanced way.	**4-7 marks** Partial analysis of Figures 5-8 with some detailed use of data. Partial arguments and conclusions have been attempted.
1	**1-3 marks** Demonstrates limited knowledge and understanding of some element of the question. Makes limited or no use of examples and may include a simple diagram.	**1-4 marks** Applies knowledge and understanding to produce a limited evaluation. Applies limited knowledge and understanding of Specification themes in an unbalanced way.	**1-3 marks** Limited analysis of Figures 5-8 with some limited use of data. Limited arguments and conclusions, if any.
	0 marks Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

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10. 'Far fewer people would migrate if there were less inequality and injustice in the world.' Discuss. Suggested focus: see AO1	AO1	AO2.1a	AO2.1b	AO2.1c	AO3	**Total**
	8			12	10	**30**

Within the answer to question 10, candidates should use the resources in Figures 5, 6, 7 and 8 and apply their knowledge and understanding from across the whole specification 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.

AO3 may include:

- analysis and interpretation of land grab injustices as a cause of forced migration shown in Figure 5
- analysis and interpretation of the links between climate change, conflict and migration in Figure 6
- analysis and interpretation of the political controls on migration shown in Figure 7
- analysis and interpretation of the urban population changes (and implied migration) shown in Figure 8
- synthesis of Figures e.g. possibility that people displaced by injustices (Figures 5 and 6) might migrate to other countries (Figure 7).

AO1 content includes knowledge and understanding of the migration and inequality/injustice issues shown or implied in Figures 5-8, or other relevant content studied as part of the course, including C1 and C3 options. This may include:

- population growth in UK urban areas due to internal migration, causally linked with a range of changing place factors, including spatial inequalities in employment and opportunity, or the pull of newly regenerated urban areas (C1 – changing places)
- the role of multinational corporations (MNCs) in the acquisition of land in lower-income countries, resulting in rural-urban migration (C2 – global migration)
- migration policies and global governance of refugees (C2 – global migration and global governance)
- causes and impacts of increasing atmospheric carbon storage i.e. climate change (C2 – water and carbon cycles).

AO2 requires candidates demonstrate application of knowledge and understanding through an evaluation of the causes of migration, which should include inequality and injustice. Responses may include:

- evaluation of the extent to which most migration is a result of present-day or historical injustices, such as the displacement of indigenous or First Nations peoples
- evaluation of the extent to which most migration is a result of real or perceived spatial variations in income, wealth and opportunity
- evaluation of the relative importance of different push and pull factors affecting internal or international migration
- reflecting critically on other causes of migration such as tectonic or water cycle hazards, and the extent to which resulting displacements are also a result of economic inequalities
- reflecting critically using other specialised geographic concepts such as scale or feedback (shown in Figure 6).

The question requires that candidates progress beyond describing different migration push factors and mentioning possible constraints. At the upper end, answers that score highly will show application of knowledge and understanding by critically evaluating each of the contexts they choose to write about, 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 migration causes to provide little evaluation.

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Award the marks as follows:			
	AO1 [8 marks]	**AO2.1c [12 marks]**	**AO3 [10 marks]**
Band	*Knowledge & understanding of migration issues.*	*Evaluation of the causes of migration, including inequality and injustice.*	*Specific ideas, issues and information in Figures 5-8; extended writing skills.*
3	**7-8 marks** Demonstrates detailed and accurate knowledge and understanding of all elements of the question. Makes use of appropriate and well-developed examples and may include well-annotated diagram(s).	**9-12 marks** Applies knowledge and understanding to produce a coherent, thorough and sustained evaluation. Applies knowledge and understanding of Specification themes in a broad and well-balanced way.	**8-10 marks** Well-developed analysis of Figures 5-8 with sustained and detailed use of data. Well-constructed, coherent and logical arguments and substantiated conclusions.
2	**4-6 marks** Demonstrates accurate knowledge and understanding of most elements of the question. Makes some use of examples and may include simple diagram(s).	**5-8 marks** Applies knowledge and understanding to produce a coherent but partial evaluation. Applies knowledge and understanding of Specification themes in a narrower and partially-balanced way.	**4-7 marks** Partial analysis of Figures 5-8 with some detailed use of data. Partial arguments and conclusions have been attempted.
1	**1-3 marks** Demonstrates limited knowledge and understanding of some element of the question. Makes limited or no use of examples and may include a simple diagram.	**1-4 marks** Applies knowledge and understanding to produce a limited evaluation. Applies limited knowledge and understanding of Specification themes in an unbalanced way.	**1-3 marks** Limited analysis of Figures 5-8 with some limited use of data. Limited arguments and conclusions, if any.
	0 marks Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.	**0 marks** Response not creditworthy or not attempted.

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