

INTERNATIONAL AS GEOGRAPHY GG02

Paper 2 Human Geography 1

Mark scheme

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

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

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International AS Geography mark scheme

How to mark

Aims

When you are marking your allocation of scripts your main aims should be to:

- recognise and identify the achievements of students
- place students in the appropriate mark band and in the appropriate part of that mark band (high, low, middle) for **each** Assessment Objective
- record your judgements with brief notes, annotations and comments that are relevant to the mark scheme and make it clear to other examiners how you have arrived at the numerical mark awarded for each Assessment Objective
- ensure comparability of assessment for all students, regardless of question or examiner.

Approach

It is important to be **open-minded** and **positive** when marking scripts.

The specification recognises the variety of experiences and knowledge that students will have. It encourages them to study geography in a way that is relevant to them. The questions have been designed to give them opportunities to discuss what they have found out about geography. It is important to assess the quality of **what the student offers**.

Do not mark scripts based on the answer **you** would have written. The mark schemes have been composed to assess **quality of response** and not to identify expected items of knowledge.

Assessment Objectives

This component requires students to:

AO1	Demonstrate knowledge and understanding of places, environments, concepts, processes, interactions and change, at a variety of scales.
AO2	Apply knowledge and understanding in different contexts to interpret, analyse and evaluate geographical information and issues.
AO3	Use a variety of relevant quantitative, qualitative and fieldwork skills to: <ul style="list-style-type: none">• investigate geographical questions and issues• interpret, analyse and evaluate data and evidence• construct arguments and draw conclusions.

The marking grids

Do not think of levels equalling grade boundaries.

Depending on the part of the examination, the levels will have different mark ranges assigned to them. This will reflect the different weighting of Assessment Objectives in particular tasks and across the examination as a whole.

Using the grids

Having familiarised yourself with the descriptors and indicative content, read through the answer and annotate it (as instructed below) to identify the qualities that are being looked for and that it shows. You can now check the levels and award a mark.

Step 1 Determine a level

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

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best-fit approach for defining the level and then use the variability of the response to help decide the mark within the level.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark.

It is often best to start in the middle of the level's mark range and then check and adjust. If there is a lot of indicative content fully identifiable in the work you need to give the highest mark in the level. If only some is identifiable or it is only partially fulfilled, then give the lower mark.

The exemplar materials used during standardisation will also help. There will be an answer in the standardising materials that will correspond with each level of the mark scheme. This answer will have been awarded a mark by the lead examiner. You can compare the student's answer with the example to determine if it is of the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the lead examiner's mark on the example.

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

In addition to the levels descriptors, question specific indicative content is provided as a guide for examiners. This is not intended to be exhaustive and you must credit other valid points.

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

Annotating scripts

You should write a summative comment at the end for each Assessment Objective and indicate the marks for each Assessment Objective being tested at the end of the answer in the margin in sequence. It is vital that the way you arrive at a mark should be recorded on the script. This will help you with making accurate judgements and it will help any subsequent markers to identify how you are thinking. Please do not write negative comments about students' work or their alleged aptitudes.

Section A – Global systems and governance

Total for this section: 40 marks

Question	Part	Marking guidance	Total marks
01	1	<p>Which of the following are BOTH threats to the world's oceans caused by oil and plastic pollution?</p> <p>Key – C: They harm ocean wildlife and they can spread out, which makes clearing up difficult.</p>	<p>1</p> <p>AO1=1</p>
01	2	<p>Which of the following is an injustice linked to an attempt to develop global governance?</p> <p>Key – B: The UN creates new guidance on air pollution in response to climate change. This negatively affects poorer countries.</p>	<p>1</p> <p>AO1=1</p>
01	3	<p>‘Over time, the development of ports and routes has helped to increase the amount of goods being moved around the world.’</p> <p>Which factor in globalisation does this describe?</p> <p>Key – D: Transport</p>	<p>1</p> <p>AO1=1</p>
01	4	<p>Variable access to global markets has an impact on people.</p> <p>Which of the following are BOTH NEGATIVE impacts?</p> <p>Key – A: Decreased access to cheaper goods from overseas and lack of variety of products.</p>	<p>1</p> <p>AO1=1</p>
01	5	<p>Which of the following is an example of a global flow of information?</p> <p>Key – A: A transnational corporation shares a news report in multiple countries about a natural disaster.</p>	<p>1</p> <p>AO1=1</p>

Question	Part	Marking guidance	Total marks
02		Analyse the data shown in FIGURE 1 and FIGURE 2.	6 AO3=6

Level	Marks	Descriptor
2	4–6	AO3 – Clear selection and analysis of the evidence that has been provided which makes appropriate use of data to support. Clear connections between different aspects of the data.
1	1–3	AO3 – Some basic selection and analysis of the evidence that has been provided which makes limited use of data to support. Basic or limited connections between different aspects of the data.
0	0	No creditable content.

Indicative Content

This question requires analysis of two different compound graphs, one showing information on moderate and severe bleaching in the Pacific Ocean between 1980 and 2016, the other moderate and severe bleaching in the Western Atlantic Ocean between 1980 and 2016. Analysis could include key trends and data changes, such as high and low amounts and anomalies within each graph, as well as comparison between the graphs. There should be specific application of the data from the graph.

AO3

- In Pacific Ocean graph (**Figure 1**) 1998 had the most bleaching overall, with approximately 55% of locations. The equal highest amount in the Western Atlantic Ocean graph (**Figure 2**) was also in 1998 but here it was approximately 91% of locations.
- In Pacific Ocean graph (**Figure 1**) most years had more severe bleaching than moderate bleaching. However, in the Western Atlantic Ocean graph (**Figure 2**) there are many years without any severe bleaching.
- In the Pacific Ocean graph (**Figure 1**) there are 4 years with only severe bleaching and no moderate bleaching, however there are no years where this is the case in the Western Atlantic Ocean graph (**Figure 2**).
- In the Pacific Ocean graph (**Figure 1**) there are 8 years with only moderate bleaching and no severe bleaching (2008 is 0%). This more than doubles in the Western Atlantic Ocean graph (**Figure 2**) to 18 years.
- The Pacific Ocean graph (**Figure 1**) has 7 years with no bleaching, compared to only two years in the Western Atlantic Ocean graph (**Figure 2**).
- The Pacific Ocean graph (**Figure 1**) has only 5 years with more than 30% bleaching, compared to 13 years in the Western Atlantic Ocean graph (**Figure 2**).
- Both graphs fluctuate without any clear trends over time.
- There has been a much higher percentage of bleached locations over time in the Western Atlantic Ocean (**Figure 2**) compared to the Pacific Ocean (**Figure 1**).
- There is also a much higher range of % locations bleached in the Western Atlantic Ocean (**Figure 2**) with variation from 0% to 91%, whereas in the Pacific Ocean (**Figure 1**) this varies from 0% to 55%.

Question	Part	Marking guidance	Total marks
03		<p>To what extent do trade relationships with highly developed economies benefit less developed economies?</p> <p>AO1 – Knowledge and understanding of trading relationships and patterns between large, highly developed economies and smaller, less developed economies. Knowledge and understanding of differential access to markets. Knowledge and understanding of unequal flows and power relations linked to global systems.</p> <p>AO2 – Application of knowledge and understanding to determine the extent to which trade relationships with highly developed economies benefit less developed economies.</p>	<p>9</p> <p>AO1=4 AO2=5</p>

Level	Marks	Descriptor
3	7–9	<p>AO1 – Demonstrates detailed knowledge and understanding of trade relationships between highly developed economies and less developed economies and the impacts of these.</p> <p>AO2 – Applies knowledge and understanding to the novel situation, offering detailed judgement of extent, drawn appropriately from the context provided. Connections and relationships between different aspects of study are thorough and relevant.</p>
2	4–6	<p>AO1 – Demonstrates clear knowledge and understanding of trade relationships between highly developed economies and less developed economies and the impacts of these.</p> <p>AO2 – Applies knowledge and understanding to the novel situation, offering clear judgement of extent, drawn appropriately from the context provided. Connections and relationships between different aspects of study are evident and relevant.</p>
1	1–3	<p>AO1 – Demonstrates basic knowledge and understanding of trade relationships between highly developed economies and less developed economies and the impacts of these.</p> <p>AO2 – Applies limited knowledge and understanding to the novel situation, offering some basic judgement of extent. Connections and relationships between different aspects of study are basic with limited relevance. Analysis and evaluation are basic and of limited relevance.</p>
0	0	No creditable content.

Indicative Content

This question requires specific focus on the trading relationships and patterns between large, highly developed economies and smaller, less developed economies which is within the international trade and access to markets section of the specification on Global Systems and Governance. Connections may be made to differential access to markets which is within the international trade and access to markets section, as well as unequal flows and power relations

which is within the global systems section of the specification. The answer should consider different aspects of benefits and possibly drawbacks, then make a judgement on the extent to which trade relationships with highly developed economies benefit less developed economies.

AO1

- Knowledge and understanding of globalisation critique trading relationships and patterns between large, highly developed economies and smaller, less developed economies.
- Knowledge and understanding of differential access to markets.
- Knowledge and understanding of unequal flows and power relations linked to global systems.

AO2

- Judgement on the extent of benefits to less developed economies of trading relationships with highly developed economies. For example:
 - Kenya has benefited from trading with the United States by exporting high value agricultural products, such as coffee, tea, flowers, and fresh produce that are not grown in the US. In return, Kenya has had access to US markets which has provided Kenyan farmers with access to better technology that has improved farming. The US has also offered tariff-free access to certain Kenyan exports under the 'African Growth and Opportunity Act', making it easier for Kenyan products to compete in the American market
 - Bangladesh has benefitted from the European Union's (EU) 'Everything But Arms' initiative which means that Bangladesh gets duty-free and quota-free access to the European market. This has particularly benefitted the garment industry in Bangladesh which creates cheap clothing that can be sold in European markets. The growth in clothing manufacture in Bangladesh has created a vital industry that provides employment to millions, particularly women, and drives overall economic development within the country. This has also attracted international investment from non-EU countries and led to the development of infrastructure within Bangladesh
 - as China's economy has developed it has established strong trade and investment relationships with a number of countries in Africa. Ethiopia is one that has benefitted a lot, especially through investments in infrastructure like roads, railways, and industrial parks. Through these investments, Ethiopia benefits from technology transfer and skill development as Chinese firms train local workers and introduce new manufacturing techniques and construction methods. This has meant that Ethiopia's infrastructure has improved, which has reduced transportation costs, facilitated domestic trade, and attracted additional foreign investment, creating a stronger foundation for industrial growth.
- Judgement on the extent of drawbacks to less developed economies of trading relationships with highly developed economies. For example:
 - Zambia's economy relies heavily on copper exports, and China is a major purchaser. While this demand boosts Zambia's copper industry, it has led to over-dependence on a single commodity, making the Zambian economy vulnerable to fluctuations in global copper prices and shifts in Chinese demand over time. This has led to a number of drawbacks within Zambia, such as economic instability and lack of industrial diversity and investment, which has restricted development of the country
 - Nigeria's market has been flooded with low-cost imported goods, particularly from the European Union, which makes it hard for local manufacturers to compete. For example, Nigeria imports large quantities of processed agricultural products, textiles, and machinery from the EU, which are often cheaper than locally produced alternatives. This import pressure has restricted Nigeria's local manufacturing sector, especially in textiles and processed foods. Many local businesses have struggled to survive against cheaper imports, resulting in job losses and limiting the growth of domestic industries

- Cambodia's garment industry exports primarily to developed countries like the United States. While this trade relationship provides jobs and investment, there have been ongoing concerns about poor working conditions, low wages, and worker exploitation, as companies prioritise keeping production costs low to meet the demands of international buyers. Due to the dependence on this industry, the government has been reluctant to impose laws and restrictions on development, meaning that pollution levels have remained high and resource usage has been unsustainable which has further impacted on the country in a negative way.
- An overall judgement on the extent to which trade relationships with highly developed economies benefit less developed economies should be made based on the points raised in the answer.

Question	Part	Marking guidance	Total marks
04		<p>Evaluate the consequences of global governance of the world's oceans for people AND places that depend on them for their way of life.</p> <p>AO1 – Knowledge and understanding of the geographical consequences of global governance for citizens and places who depend on the oceans for their way of life. Knowledge and understanding of the developing governance of the world's oceans. Knowledge and understanding of the role of NGOs in monitoring threats and enhancing protection of the oceans.</p> <p>AO2 – Application of knowledge and understanding to evaluate the consequences of global ocean governance for people and places.</p>	<p>20</p> <p>AO1=10 AO2=10</p>

Level	Marks	Descriptor
4	16–20	<p>AO2 – Detailed evaluative conclusion that is rational and firmly based on knowledge and understanding which is applied to the context of the question.</p> <p>AO2 – Detailed, coherent and relevant analysis and evaluation in the application of knowledge and understanding throughout.</p> <p>AO2 – Full evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts.</p> <p>AO1 – Detailed, highly relevant and appropriate knowledge and understanding of place(s) and environments used throughout.</p> <p>AO1 – Full and accurate knowledge and understanding of key concepts and processes throughout.</p> <p>AO1 – Detailed awareness of scale and temporal change which is well integrated where appropriate.</p>
3	11–15	<p>AO2 – Clear evaluative conclusion that is based on knowledge and understanding which is applied to the context of the question.</p> <p>AO2 – Generally clear, coherent and relevant analysis and evaluation in the application of knowledge and understanding.</p> <p>AO2 – Generally clear evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts.</p> <p>AO1 – Generally clear and relevant knowledge and understanding of place(s) and environments.</p> <p>AO1 – Generally clear and accurate knowledge and understanding of key concepts and processes.</p>

		AO1 – Generally clear awareness of scale and temporal change which is integrated where appropriate.
2	6–10	<p>AO2 – Some sense of an evaluative conclusion partially based upon knowledge and understanding which is applied to the context of the question.</p> <p>AO2 – Some partially relevant analysis and evaluation in the application of knowledge and understanding.</p> <p>AO2 – Some evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts.</p> <p>AO1 – Some relevant knowledge and understanding of place(s) and environments which is partially relevant.</p> <p>AO1 – Some knowledge and understanding of key concepts, processes and interactions and change.</p> <p>AO1 – Some awareness of scale and temporal change which is sometimes integrated where appropriate. There may be a few inaccuracies.</p>
1	1–5	<p>AO2 – Very limited and/or unsupported evaluative conclusion that is loosely based upon knowledge and understanding which is applied to the context of the question.</p> <p>AO2 – Very limited analysis and evaluation in the application of knowledge and understanding. This lacks clarity and coherence.</p> <p>AO2 – Very limited and rarely logical evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts.</p> <p>AO1 – Very limited relevant knowledge and understanding of place(s) and environments.</p> <p>AO1 – Isolated knowledge and understanding of key concepts and processes.</p> <p>AO1 – Very limited awareness of scale and temporal change which is rarely integrated where appropriate. There may be a number of inaccuracies.</p>
0	0	No creditable content.

Indicative Content

The question links different parts of the oceans as a global common section within the Global Systems and Governance specification. The main focus is on the geographical consequences of global governance for citizens and places who depend on the oceans for their way of life. The question requires candidates to evaluate these consequences. To do this they may use other parts of the oceans as a global common section, such as critical appraisal of the developing governance of the world's oceans and the role of NGOs in monitoring threats and enhancing protection of the oceans. Answers should consider a range of consequences which are evaluated throughout or within a clear conclusion. Answers will be limited to a maximum of Level 3 if only people **or** places are considered.

AO1

- Knowledge and understanding of the geographical consequences of global governance for citizens and places who depend on the oceans for their way of life.
- Knowledge and understanding of the developing governance of the world's oceans.
- Knowledge and understanding of the role of NGOs in monitoring threats and enhancing protection of the oceans.

AO2

- Evaluation of positive consequences of global governance for citizens and places who depend on the oceans for their way of life. For example:
 - the Marine Stewardship Council (MSC) provides certifications for sustainable fishing practices, ensuring that certified fisheries adhere to strict standards that prevent overfishing, minimise environmental impact, and ensure traceability. This has had a clear benefit on hake fisheries on South Africa's coast. The certification has helped to secure better prices in global markets for MSC-certified hake, supported the livelihoods of fishers and incentivised sustainable fishing practices. As a result, local fish stocks have remained more stable, benefitting the community and enhancing marine biodiversity in the region
 - Greenpeace's advocacy for a Global Ocean Treaty, which aims to protect at least 30% of the world's oceans by 2030, has influenced governments to establish more marine protected areas, with notable examples like the Ross Sea Marine Protected Area in Antarctica. This has helped to allow for more protection of ocean ecosystems within the locations, and helped coastal communities around New Zealand and Chile whose economies are closely linked to ocean tourism and sustainable fishing. Protecting these areas allows fish stocks to regenerate, boosts ecotourism, and fosters resilience against climate change impacts, providing long-term economic stability and ecosystem health that local communities rely on
 - the Western and Central Pacific Fisheries Commission (WCPFC) has implemented quotas and monitoring systems to ensure the sustainable management of tuna stocks. For nations like the Federated States of Micronesia and Kiribati, where tuna is a primary economic resource, this governance has helped reduce overfishing and stabilised fish stocks. This has ensured that these communities can maintain their economic livelihoods, and it safeguards the marine ecosystem from depletion, securing future tuna supplies for local consumption and export, as well as sustaining the future ecosystem and environment.
- Evaluation of negative consequences of global governance for citizens and places who depend on the oceans for their way of life. For example:
 - the European Union's (EU) Common Fisheries Policy enforces fishing quotas and restrictions aimed at preventing overfishing and restoring fish populations in EU waters. For fishing communities in Spain and Portugal, and particularly small-scale fishers in Galicia and the Algarve, these quotas have led to reduced allowable catches. While they help conserve fish stocks, the limits have caused economic hardship, as small fishers find it challenging to compete with industrial fishing companies that can more easily absorb the economic impact of reduced quotas. Consequently, some coastal communities have seen income loss and job reductions, affecting their way of life
 - The International Maritime Organization's (IMO) 2020 sulphur cap regulation limits sulphur emissions from ships, requiring vessels to use cleaner fuels to reduce air pollution from shipping. For small island nations in the Caribbean and Pacific Islands, including Fiji and Jamaica, these regulations have had unintended economic consequences. The higher costs associated with cleaner fuels have led to increased shipping costs, which, in turn, raise the prices of goods that must be imported by sea. Since many island nations are heavily reliant on imported goods, these price hikes have strained local economies, where residents now face higher living costs. Coastal communities dependent on imported fishing equipment and materials for tourism have felt the brunt of these added expenses

- UNESCO World Heritage designations often bring strict regulations to protect unique marine ecosystems and cultural heritage. For instance, the designation of the Great Barrier Reef in Australia as a World Heritage Site has led to increased government regulations on tourism, diving, and coastal development to preserve its fragile coral ecosystem. While these protections aim to safeguard the reef, they also limit certain tourism activities and development opportunities, affecting the livelihoods of local businesses and tour operators. In coastal towns like Cairns and Port Douglas, local guides, small tour operators, and community-based businesses have faced increased operational costs due to regulatory compliance and reduced access to certain reef areas. These limitations, while beneficial for conservation, have led to decreased income for some residents and fewer job opportunities, impacting the social fabric and economic stability of these communities, which rely heavily on reef tourism for their livelihoods.
- Evaluation of the significance and importance of these impacts may be made throughout the answer, or in an overall conclusion that may also consider the most significant impact overall.

Section B – Resource security

Total for this section: 40 marks

Question	Part	Marking guidance	Total marks
05	1	<p>Improvements in energy supply can improve water supply from desalination.</p> <p>Which of the following is an example of this?</p> <p>Key – D: Using more effective solar power to convert sea water into drinking water.</p>	<p>1</p> <p>AO1=1</p>
05	2	<p>Which of the following are ALL natural water sources?</p> <p>Key – C: Rivers, groundwater and freshwater lakes.</p>	<p>1</p> <p>AO1=1</p>
05	3	<p>‘Using natural resources in industry for economic growth or development’.</p> <p>Which of the following does this define?</p> <p>Key – A: Resource exploitation</p>	<p>1</p> <p>AO1=1</p>
05	4	<p>Which of the following is a strategy to reduce energy consumption?</p> <p>Key – B: Educating people on how to be more energy efficient in homes.</p>	<p>1</p> <p>AO1=1</p>
05	5	<p>Damaged water pipelines that are losing water are repaired.</p> <p>Which of the following is this an example of?</p> <p>Key – C: Water conservation</p>	<p>1</p> <p>AO1=1</p>

Question	Part	Marking guidance	Total marks
06		Analyse the data shown in FIGURE 3.	6 AO3=6

Level	Marks	Descriptor
2	4–6	AO3 – Clear selection and analysis of the evidence that has been provided which makes appropriate use of data to support. Clear connections between different aspects of the data.
1	1–3	AO3 – Some basic selection and analysis of the evidence that has been provided which makes limited use of data to support. Basic or limited connections between different aspects of the data.
0	0	No creditable content.

Indicative Content

This question requires analysis of a dispersion graph showing the percentage of population with access to drinking water in rural and urban areas within 25 countries in Africa. Analysis could include identification of trends and anomalies, as well as comparison of the ranges for different countries. There should be specific application of the data from the graph.

AO3

- Over half of the countries have less than 20% access to drinking water in rural areas.
- Less than a fifth of countries have more than 50% access to drinking water in rural areas.
- Over half of the countries have less than 60% access to drinking water in urban locations.
- There appears to be no direct link between % access to drinking water in rural areas and the % in urban areas, with huge fluctuations seen throughout the graph.
- Ethiopia has the biggest difference of access at approximately 70%, ranging from around 5% for rural areas to 75% for urban areas.
- Sierra Leone has the smallest difference of access at approximately 15%, ranging from around 10% for rural areas to 25% for urban areas.
- The differences are not as extreme with higher percentages of urban access, and four of the five biggest ranges are in the countries with the ten lowest rural percentages.
- Half of the countries shown have a difference of 40% or more between access to drinking water in rural and urban areas.
- Only two countries have a difference of 20% or less between access to drinking water in rural and urban areas.

Question	Part	Marking guidance	Total marks
07		<p>Examine the impacts of water conflicts at an international scale.</p> <p>AO1 – Knowledge and understanding of water conflicts at an international scale.</p> <p>AO2 – Application of knowledge and understanding to examine the impacts of water conflicts at an international scale.</p>	<p>9</p> <p>AO1=4 AO2=5</p>

Level	Marks	Descriptor
3	7–9	<p>AO1 – Demonstrates detailed knowledge and understanding of water conflicts at an international scale.</p> <p>AO2 – Applies knowledge and understanding to the novel situation, offering detailed examination, drawn appropriately from the context provided. Connections and relationships between different aspects of study are thorough and relevant.</p>
2	4–6	<p>AO1 – Demonstrates clear knowledge and understanding of water conflicts at an international scale.</p> <p>AO2 – Applies knowledge and understanding to the novel situation, offering clear examination, drawn appropriately from the context provided. Connections and relationships between different aspects of study are evident with and relevant.</p>
1	1–3	<p>AO1 – Demonstrates basic knowledge and understanding of water conflicts at an international scale.</p> <p>AO2 – Applies limited knowledge and understanding to the novel situation, offering some basic examination. Connections and relationships between different aspects of study are basic with limited relevance. Analysis and evaluation are basic and of limited relevance.</p>
0	0	No creditable content.

Indicative Content

This question requires specific focus on water conflicts which is within the water security section of the specification on Resource Security. Knowledge of water conflict at an international scale should be applied in order to examine the different impacts of this. Connections may be made to other parts of the specification if they are relevant, although this is a specific section of the specification.

AO1

- Knowledge and understanding of water conflicts at a variety of scales – local, national, international.

AO2

- Examination of the impacts of water conflicts at an international scale. For example:
 - Ethiopia's construction of the Grand Ethiopian Renaissance Dam has led to political tensions with downstream nations, especially Egypt, which relies heavily on the Nile for its water supply. Egypt fears that the dam will reduce its water flow, potentially threatening its agriculture and drinking

water. Diplomatic talks have taken place, but a lack of binding agreement continues to fuel regional instability, as each country attempts to assert control over its portion of the Nile

- Turkey has built multiple dams along the Tigris and Euphrates rivers, part of its Southeast Anatolia Project, which has severely reduced water flow to Iraq and Syria. The reduced water supply has had significant economic repercussions, particularly in Iraq, where agriculture is a major part of the economy. Water scarcity has led to reduced crop yields and higher prices, straining food security and the economy in these downstream countries
- the Indus Waters Treaty created in 1960 has long governed water sharing between India and Pakistan. However, recent dam-building by India on tributaries of the Indus has led to concerns in Pakistan about reduced water access. This has significant social impacts, particularly for Pakistani farmers and communities who depend on the river for their livelihoods. Reduced water flow has worsened agricultural conditions, contributing to social displacement as families are forced to move to urban areas due to loss of income and arable land
- intensive water diversion from the Amu Darya and Syr Darya for irrigation during the Soviet era caused the Aral Sea to shrink drastically, impacting both Kazakhstan and Uzbekistan. The drying of the Aral Sea has led to severe environmental degradation, including loss of aquatic biodiversity, increased salinity, and desertification of former lakebed areas. This environmental catastrophe has disrupted local weather patterns and led to health issues due to toxic dust from the exposed seabed.

Question	Part	Marking guidance	Total marks
08		<p>Evaluate the importance of physical geography in the development of energy supplies.</p> <p>AO1 – Knowledge and understanding of the relationship of energy supply (volume and quality) to key aspects of physical geography – climate, geology and drainage. Knowledge and understanding of energy supplies in a globalising world. Knowledge and understanding of strategies to increase energy supply.</p> <p>AO2 – Application of knowledge and understanding to evaluate the importance of physical geography in the development of energy supplies.</p>	<p>20</p> <p>AO1=10 AO2=10</p>

Level	Marks	Descriptor
4	16–20	<p>AO2 – Detailed evaluative conclusion that is rational and firmly based on knowledge and understanding which is applied to the context of the question.</p> <p>AO2 – Detailed, coherent and relevant analysis and evaluation in the application of knowledge and understanding throughout.</p> <p>AO2 – Full evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts.</p> <p>AO1 – Detailed, highly relevant and appropriate knowledge and understanding of place(s) and environments used throughout.</p> <p>AO1 – Full and accurate knowledge and understanding of key concepts and processes throughout.</p> <p>AO1 – Detailed awareness of scale and temporal change which is well integrated where appropriate.</p>
3	11–15	<p>AO2 – Clear evaluative conclusion that is based on knowledge and understanding which is applied to the context of the question.</p> <p>AO2 – Generally clear, coherent and relevant analysis and evaluation in the application of knowledge and understanding.</p> <p>AO2 – Generally clear evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts.</p> <p>AO1 – Generally clear and relevant knowledge and understanding of place(s) and environments.</p> <p>AO1 – Generally clear and accurate knowledge and understanding of key concepts and processes.</p> <p>AO1 – Generally clear awareness of scale and temporal change which is integrated where appropriate.</p>

2	6–10	<p>AO2 – Some sense of an evaluative conclusion partially based upon knowledge and understanding which is applied to the context of the question.</p> <p>AO2 – Some partially relevant analysis and evaluation in the application of knowledge and understanding.</p> <p>AO2 – Some evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts.</p> <p>AO1 – Some relevant knowledge and understanding of place(s) and environments which is partially relevant.</p> <p>AO1 – Some knowledge and understanding of key concepts, processes and interactions and change.</p> <p>AO1 – Some awareness of scale and temporal change which is sometimes integrated where appropriate. There may be a few inaccuracies.</p>
1	1–5	<p>AO2 – Very limited and/or unsupported evaluative conclusion that is loosely based upon knowledge and understanding which is applied to the context of the question.</p> <p>AO2 – Very limited analysis and evaluation in the application of knowledge and understanding. This lacks clarity and coherence.</p> <p>AO2 – Very limited and rarely logical evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts.</p> <p>AO1 – Very limited relevant knowledge and understanding of place(s) and environments.</p> <p>AO1 – Isolated knowledge and understanding of key concepts and processes.</p> <p>AO1 – Very limited awareness of scale and temporal change which is rarely integrated where appropriate. There may be a number of inaccuracies.</p>
0	0	No creditable content.

Indicative Content

The question links different parts of the energy security section of the Resource Security part of the specification, with specific reference to the relationship of energy supply to key aspects of physical geography. Links may well be made to energy supplies in a globalising world and strategies to increase energy supply, as well as any other specification sections relevant to the question. Based on the points made an evaluation of the importance of physical geography in the development of energy supplies should be made, either throughout the answer or within an overall conclusion.

AO1

- Knowledge and understanding of the relationship of energy supply (volume and quality) to key aspects of physical geography – climate, geology and drainage.
- Knowledge and understanding of energy supplies in a globalising world.
- Knowledge and understanding of strategies to increase energy supply.

- Knowledge and understanding of other topic areas if relevant to the answer.

AO2

- Evaluation of the importance of physical geography in the development of energy supplies. For example:
 - geology is vital in forming some energy supplies, especially fossil fuels. The Middle East, for instance, has large oil reserves because of specific ancient marine conditions that led to rich sediment deposits and the compression of them and organic matter over millions of years to create oil. This can also be the case with some renewable energy, such as geothermal power, which needs tectonic activity to be efficient. Countries like Iceland and New Zealand benefit from their location on plate boundaries to access abundant geothermal resources. This is not the case in countries without this specific geology
 - the availability of rivers with suitable flow rates, gradients and drainage is essential for hydropower. River basins in mountainous areas, like the Himalayas, have the necessary elevation changes and water flow to support significant hydropower production, as seen in Bhutan and parts of China. Additionally, large rivers like the Nile and the Amazon have long been used to generate hydropower, as they offer consistent flow due to their vast drainage systems and climate conditions
 - climatic conditions are essential for a number of renewable energy sources. Sunlight intensity and duration is crucial for solar power viability, such as in deserts like the Sahara which receives high solar irradiance year-round, making it a prime location for large solar farms. Wind energy potential is also highly climate-dependent. Coastal areas and high-altitude plains, where wind speeds are consistently strong, are ideal for wind farms. For instance, the North Sea's offshore winds have made it one of Europe's major areas for wind energy development. For effective hydropower you need regular precipitation patterns alongside river flow and drainage. Norway benefits from high rainfall and snowmelt, which feed its rivers, enabling extensive hydropower capacity.
- Evaluation of the importance of other factors in the development of energy supplies. For example:
 - Globalisation has enabled the extensive transport and trade of energy resources, meaning countries aren't as dependent on their own geographical features for energy. For instance, Japan lacks significant fossil fuel resources but imports large quantities of oil, natural gas, and coal from other regions. Furthermore, Liquefied Natural Gas technology allows natural gas to be transported across oceans, overcoming geographical limitations and enabling countries like South Korea and India to import energy resources despite lacking domestic reserves.
 - Advances in technology have made it possible to harness energy sources in less geographically dependent ways. Offshore wind farms, such as those off the coast of Denmark and the UK, bring renewable energy to countries with limited land for onshore wind farms. Additionally, floating solar panels, like those in Singapore, enable countries with limited land but ample water bodies to increase solar energy capacity without needing vast desert areas. Energy storage advancements, such as large-scale batteries, further help countries overcome intermittency issues in renewable sources, reducing dependency on geographical factors.
 - Energy conservation and efficiency improvements help meet demand without needing to increase supply or develop new geographically dependent resources. For example, Germany's Energiewende initiative promotes energy-saving measures and efficient use, allowing the country to rely less on expanding fossil fuels or other geographically limited sources. Urban planning focused on sustainable infrastructure and energy-efficient building designs reduces the need for constant energy generation expansion. These approaches help urban areas and countries become less reliant on specific geographical energy sources by lowering overall consumption.
- Evaluation of the importance of physical geography may be made throughout the answer, or in an overall conclusion that may consider it compared to other factors.

Assessment Objective grid

	AO1	AO2	AO3	Total
Section A				
01.1	1			1
01.2	1			1
01.3	1			1
01.4	1			1
01.5	1			1
02			6	6
03	4	5		9
04	10	10		20
Section B				
05.1	1			1
05.2	1			1
05.3	1			1
05.4	1			1
05.5	1			1
06			6	6
07	4	5		9
08	10	10		20
Unit total	38	30	12	80