



Mark Scheme (Final)

Summer 2023

Pearson Edexcel International Advanced
Subsidiary Level In Geography (WGE03)
Paper 01
Unit 3: Contested Planet

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e., if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Using the Mark Scheme

Examiners should look for qualities to reward rather than faults to penalise. This does NOT mean giving credit for incorrect or inadequate answers, but it does mean allowing candidates to be rewarded for answers showing correct application of principles and knowledge. Examiners should therefore read carefully and consider every response: even if it is not what is expected it may be worthy of credit.

The mark scheme gives examiners:

- an idea of the types of response expected
- how individual marks are to be awarded
- the total mark for each question
- examples of responses that should NOT receive credit.

/ means that the responses are alternatives and either answer should receive full credit.

() means that a phrase/word is not essential for the award of the mark, but helps the examiner to get the sense of the expected answer.

Phrases/words in **bold** indicate that the meaning of the phrase or the actual word is **essential** to the answer.

ecf/TE/cq (error carried forward) means that a wrong answer given in an earlier part of a question is used correctly in answer to a later part of the same question.

Candidates must make their meaning clear to the examiner to gain the mark. Make sure that the answer makes sense. Do not give credit for correct words/phrases which are put together in a meaningless manner. Answers must be in the correct context.

Quality of Written Communication

Questions which involve the writing of continuous prose will expect candidates to:

- write legibly, with accurate use of spelling, grammar and punctuation in order to make the meaning clear
- select and use a form and style of writing appropriate to purpose and to complex subject matter
- organise information clearly and coherently, using specialist vocabulary when appropriate.

Full marks will be awarded if the candidate has demonstrated the above abilities.

Questions where QWC is likely to be particularly important are indicated (QWC) in the mark scheme, but this does not preclude others.

Question Number	Using Figure 1, explain the relationship between the general circulation of the atmosphere and locations of weather hazards.	Mark
1 (a)	<p style="text-align: center;">AO1 (4 marks)/AO2 (6 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p>AO1:</p> <ul style="list-style-type: none"> • The general circulation shows three, linked, atmospheric cells and air movement, influencing areas of high and low pressure. • The cells move in response to seasonal changes in the heat equator (ITCZ) • Jet streams are areas of strong, upper atmosphere winds: the PFJS is more powerful than the SJS; both influence weather systems and are dynamic • Weather hazards include tropical cyclones, drought, heatwave (anticyclones), depressions and associated flooding. <p>AO2:</p> <ul style="list-style-type: none"> • The polar front / PFJS is a frequent location of mid-latitude depressions as polar and tropical air mix; gales / storms and flooding frequently occur here; the position of the polar front varies seasonal and is related to Rossby Wave patterns; changes to Rossby wave amplitude can influence the formation of blocking highs (drought, heatwave, coldwave, high air pollution) • In the same region, drought and heatwave can occur if the Ferrel Cell moves north for an extended period i.e., a blocking anticyclone. Extended periods of high pressure can also cause wildfires. • The high-pressure zone between the Hadley and Ferrel Cells creates arid conditions, which can cause drought / wildfires (subsiding, drying air) e.g., in Australia: the exact position can be influenced by ENSO cycles. • Monsoon rainfall (flooding) and tropical cyclone formation are both influenced by the location of low pressure at the equator (heat equator), where hot air convects leading to very high and sometimes 	(10)

	<p>hazardous rainfall (convective storms) and the source areas of tropical cyclones (winds, storm surge, landslides, flooding)</p> <ul style="list-style-type: none"> Seasonal hazards linked to the movement of the ITCZ (flooding, monsoons, tropical cyclone source regions) may be explained. Arctic and Pc 'cold outbreaks' associated with the polar cell high pressure sinking further south than normal. 	
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Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1-4	<ul style="list-style-type: none"> Demonstrates isolated or generic elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1) Applies knowledge and understanding to geographical information inconsistently. Connections/relationships between stimulus material and the question may be irrelevant. (AO2) Applies knowledge and understanding of geographical information/ideas to produce an interpretation with limited relevance and/or support. (AO2)
Level 2	5-7	<ul style="list-style-type: none"> Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) Applies knowledge and understanding to geographical information to find some relevant connections/relationships between stimulus material and the question. (AO2) Applies knowledge and understanding of geographical information/ideas to produce a partial but coherent interpretation that is mostly relevant and supported by evidence. (AO2)
Level 3	8-10	<ul style="list-style-type: none"> Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) Applies knowledge and understanding to geographical information logically to find fully relevant connections/relationships between stimulus material and the question. (AO2) Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2)

Question Number	Assess the importance of prediction and evacuation in the management of tropical cyclones.	Mark
1 (b)	<p style="text-align: center;">AO1 (5 marks)/AO2 (10 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p>AO1</p> <ul style="list-style-type: none"> • Tropical cyclones are large rotating storms that cause intense rainfall, storm surges and destructive winds. • Management means ways in which players try to reduce the social and economic impacts of cyclones either before, during or after then event. • Prediction is an actionable statement of the time and place a cyclone will strike (forecasts are a % probability) • Evacuation moves people out of harm's way, temporarily, as part of a managed process of information dissemination and route management. <p>AO2</p> <ul style="list-style-type: none"> • Prediction might be seen as very important, because without it no preparation is possible; in almost all cases prediction occurs although the issues in some places might be disseminating this information to vulnerable people e.g., isolated, rural locations in the developing world. • Poor prediction can lead to 'cry wolf syndrome' reducing the impact of future predictions. • Evacuation can save lives, and a limited amount of personal property, but its weakness is in not saving property so economic losses will still be high. • In developed countries, where many have insurance, these economic losses are recoverable but in lower income areas they may not be: loss of farmland and livestock can remove people's source of income. • Evacuation is sometimes poorly managed e.g., Katrina in 2005, or may not be possible (isolated islands), and in all cases requires safe places such as a cyclone shelter – so infrastructure is needed not just a warning to move. • Longer-term it might be better to try and reduce economic losses using engineering and / or adaptation methods such 	(15)

	<p>as ways to reduce storm surges – but these are costly and not practical everywhere.</p> <ul style="list-style-type: none"> Some might argue that poor governance is a root cause of poor management because some places lack the management ability to act despite predictions being widely available. 	
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Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–4	<ul style="list-style-type: none"> Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1) Applies knowledge and understanding of geographical information/ideas, making limited and rarely logical connections/relationships, to produce an interpretation with limited relevance and/or support. (AO2) Applies knowledge and understanding of geographical information/ideas to produce an unsupported or generic conclusion, drawn from an argument that is unbalanced or lacks coherence. (AO2)
Level 2	5–8	<ul style="list-style-type: none"> Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1) Applies knowledge and understanding of geographical information/ideas with limited but logical connections/relationships to produce a partial interpretation that is supported by some evidence but has limited coherence. (AO2) Applies knowledge and understanding of geographical information/ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2)
Level 3	9–12	<ul style="list-style-type: none"> Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) Applies knowledge and understanding of geographical information/ideas logically, making some relevant connections/relationships. (AO2) Applies knowledge and understanding of geographical information/ideas to produce a partial but coherent interpretation that is mostly relevant and supported by evidence. (AO2)
Level 4	13–15	<ul style="list-style-type: none"> Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1)

		<ul style="list-style-type: none"> • Applies knowledge and understanding of geographical information/ideas logically, making relevant connections/relationships. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2)
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Question Number	Using Figure 2, suggest reasons for the different trends in deforestation shown.	Mark
2	<p style="text-align: center;">AO1 (4 marks) /AO2 (6 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p>AO1:</p> <ul style="list-style-type: none"> • Trends on Figure 2 vary from year to year, with Brazil showing the largest range of variation. • Both Brazil and DRC increase over 2010-2021, whereas Indonesia's annual deforested area decreases. • Indonesia and Brazil trends are similar up to 2018, whereas the DRC follows its own pattern • Brazil's annual deforestation rate is about 500,000ha higher in 2021 compared to 2010; the DRC's rate doubles. <p>AO2:</p> <ul style="list-style-type: none"> • Deforestation can be driven by poverty and the need for farmland i.e., subsistence farms in the low-income DRC or deforestation for timber or mineral resources to sell; ecotourism might drive a reduction in Indonesia (unlikely in DRC due to conflict). • Rapid population growth leading to resource pressures in the DRC might be seen as the cause of the large increase: coltan and cobalt mining might be mentioned (exports to China and elsewhere). 	(10)

	<ul style="list-style-type: none"> • As the countries are developing / emerging a lack of effective monitoring, policing and corruption could be a reason from increasing forest loss; alternatively schemes like REDD+ could be given as a factor explaining reductions. • Given Indonesia' palm oil industry, some might question whether the post 2016 data for Indonesia is reliable – on the other hand pressure to protect forests could be a reason form the decrease in recent years. Shift from primary resources extraction towards S and T sectors. • The boom in deforestation in Brazil 2016-2021 could be linked to a desire to exploit forests for economic growth i.e., timber exports, farm exports – linked to policies (Bolsonaro government) although the steep decline from 2016 could be evidence of forest protection / political change/ external pressure to protect Amazonia. • Some might see a global demand for wood / food driving a peak for all 3 countries around 201; accept the idea that forest fires may be a cause as these are often linked to clearance but made worse by GW e.g. Amazonia droughts. <p>NB Do not credit basic description of the 3 individual lines on Figure 2.</p> <p><i>For context, Brazil's deforested area in 2016 is similar in size to Belgium or Armenia.</i></p>	
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Level	Mark	Descriptor
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Level 2	5-7	<ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding to geographical information to find some relevant connections/relationships between stimulus material and the question. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce a partial but coherent

		interpretation that is mostly relevant and supported by evidence. (AO2)
Level 3	8-10	<ul style="list-style-type: none"> • Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Applies knowledge and understanding to geographical information logically to find fully relevant connections/relationships between stimulus material and the question. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2)

Question number	To what extent is migration a solution for people affected by increasing risks from extreme weather hazards and global warming?	Mark
3	<p style="text-align: center;">AO1 (5 marks)/AO2 (10 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p>AO1:</p> <ul style="list-style-type: none"> • Migration is the permanent movement of people to live, for 1 year on more and can be internal or international. • Weather hazards include drought, tropical cyclones, floods and wildfires. • Global warming is the increase in average temperatures, attributed to the anthropogenic enhanced greenhouse effect caused by excess greenhouse gas pollution. • Risk is a function of vulnerability, capacity to cope and the frequency / magnitude of hazards (hazard risk equation) <p>AO2:</p> <ul style="list-style-type: none"> • Migration could be viewed as an easy solution i.e., faced with increased risks people simply move to a safer area either voluntarily or as 'environmental refugees' i.e., forced. • However, in reality migration may not be possible even internally due to costs and a lack of anywhere to go that is lower risk. • Migration deprives places of their best people (young, educated) so reduces income, tax and ability to adapt and 	(15)

	<p>mitigate – so it could be viewed as a negative long-term change.</p> <ul style="list-style-type: none"> • International migration is even harder, especially for low-income groups – although it is frequently undertaken (Mediterranean migration flows) despite the risks; stronger answers will recognise the legal and practical issues of international migration and the views of host countries (may be very negative). • Some very high-risk locations e.g., small island states may have no option but to migrate e.g., Tuvalu, Vanuatu, Maldives as adaptation won't be possible. • Migrants often move from rural areas to cities / megacities and this is partly caused by rural poverty, drought, water shortages and the growing risks of climate changes; however, some might make the point that this just replaces one set of risks with a new set i.e., a life of poverty in cities. • Some could argue that migration simply deals with the symptom not the root caused and that other longer-term adaptations and mitigations are needed as human populations cannot continually migrate from place to place. • Answers might focus on global climate agreements (Paris, COP26) and emissions reduction strategies as well as engineered solutions such as drought resistant crops, better water management and coastal defences. • A case could be made that weather hazards are temporary and rare – so can be overcome, but longer-term global warming is much more likely to force people to migrate; long-term places that were deemed 'good' to migrate to may become threatened by GW (a 'no escape' argument). 	
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Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–4	<ul style="list-style-type: none"> • Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1) • Applies knowledge and understanding of geographical information/ideas, making limited and rarely logical connections/relationships, to produce an interpretation with limited relevance and/or support. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce an unsupported or generic conclusion, drawn from an argument that is unbalanced or lacks coherence. (AO2)

Level 2	5-8	<ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding of geographical information/ideas with limited but logical connections/relationships to produce a partial interpretation that is supported by some evidence but has limited coherence. (AO2) • Applies knowledge and understanding of geographical information/ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2)
Level 3	9-12	<ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding of geographical information/ideas logically, making some relevant connections/relationships. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce a partial but coherent interpretation that is mostly relevant and supported by evidence. (AO2)
Level 4	13-15	<ul style="list-style-type: none"> • Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Applies knowledge and understanding of geographical information/ideas logically, making relevant connections/relationships. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2)

Question Number	Using figure 3, suggest reasons for the differences in electricity prices.	Mark
4(a)	<p>AO1 (2 marks)/AO2 (3 marks)</p> <p>Award 1 mark (AO1) for each relevant point and further expansion marks for reasons/explanations linked to the data shown (AO2), up to a maximum of 5 marks.</p> <ul style="list-style-type: none"> • Wind turbines are the cheapest source at 49 \$/MWh (1) because wind is 'free' and turbine technology is mature and scalable (1) / government subsidies reduce final cost (also solar) (1) / intermittency may increase unit cost to ensure profitability (1). • Nuclear is the most expensive at \$99 / a full \$30 higher than all others / twice the cost of wind (1), because the 	(5)

	<p>build costs are very high i.e., \$billions, with high running costs (waste reprocessing and storage / expertise) (1)</p> <ul style="list-style-type: none"> • Gas has ongoing costs as gas has to be bought sometimes at high prices / on international markets (1) / transported / imported, and the technology is costly to build – increasingly there is a ‘green’ cost / tax as it is a fossil fuel (1). • Solar PV could be seen as a less mature renewable tech compared to wind so more expensive (1) but despite this with a lower cost than gas (by \$5) because solar energy is free. / land costs may be high due to area needed (1) • Costs may have changed as a result of global issues e.g., Russia-Ukraine conflict / pandemic recovery demand (1), so it might be argued all are perceived as ‘high’ (1) 	
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Question Number	Using named examples, assess how far radical approaches to energy use can reduce the environmental concerns caused by fossil fuels.	Mark
4(b)	<p style="text-align: center;">AO1 (5 marks)/AO2 (10 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p>AO1:</p> <ul style="list-style-type: none"> • Radical approaches include alternative fuels e.g., hydrogen, EVs and CCS (accept others) • Energy conservation is using energy more efficiently so to the same energy does more work, reducing consumption / energy demand growth • Fossil fuels include coal, oil gas and unconventional sources to meet the demand from domestic, industrial and transport users (rising due to population growth, urbanisation and industrialisation especially in developing /emerging countries.) • Environmental concerns include GW and its impacts, plus extraction issues (landscape scarring, water pollution) especially associated with fossil fuels. <p>AO2:</p> <ul style="list-style-type: none"> • Energy conservation could play a major role as estimates suggest 20-33% of energy could be saved by using better technologies such as LEDs, efficient boilers and better insulated and energy efficient homes; this would reduce overall demand 	(15)

	<p>and pressure to develop fossil fuel resources; it also has the benefit of saving consumers money (long-term)</p> <ul style="list-style-type: none"> • However, many of the technologies are expensive and 'first world': the main issue in developing countries is how to meet spiralling demand not use energy more efficiently (Kuznets's curve idea could be referred to); demand in these places is usually met by fossil fuels. • It could be argued that conservation is much less important than transitioning to renewable sources (wind, solar, tidal and to a lesser extent biofuels and nuclear) as these sources directly replace fossil fuels that cause environmental concerns such as global warming (climate issues, ocean acidification, rising sea-levels). • The rapid transition to EVs in developed countries illustrates desire to be 'greener' in many cases the energy still comes from fossil fuel power stations, and the costs are too high for lower-income countries; some energy applications (air travel, shipping) currently have to alternative energy source (but may be capable of efficiencies i.e., conservation). • Other technologies such as CCS might be seen as an alternative to energy conservation i.e., by removing and storing greenhouse gases the need for conservation is reduced because some of the environmental issues (GW) are reduced – but not all i.e., the issues associated with extraction and it's a largely unproven and costly technology as yet. • Other alternatives to fossil fuels could be seen as arguably worse than what they replace e.g., biofuels (deforestation, use of land that once grew food), nuclear (waste management) so simply replace one environmental concern with another: geoengineering is not a 'radical approach to energy use' but might be relevant as part of a wider discussion. <p>NB answers that do not cover radical approaches at all are likely to be Max L2. Tar sands / shale oil and gas are (unconventional) fossil fuels not radical approaches.</p>		
Level	Mark	Descriptor	
	0	No rewardable material.	
Level 1	1–4	<ul style="list-style-type: none"> • Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1) • Applies knowledge and understanding of geographical information/ideas, making limited and rarely logical connections/relationships, to produce an interpretation with limited relevance and/or support. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce an unsupported or generic 	

		conclusion, drawn from an argument that is unbalanced or lacks coherence. (AO2)
Level 2	5-8	<ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding of geographical information/ideas with limited but logical connections/relationships to produce a partial interpretation that is supported by some evidence but has limited coherence. (AO2) • Applies knowledge and understanding of geographical information/ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2)
Level 3	9-12	<ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding of geographical information/ideas logically, making some relevant connections/relationships. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce a partial but coherent interpretation that is mostly relevant and supported by evidence. (AO2)
Level 4	13-15	<ul style="list-style-type: none"> • Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Applies knowledge and understanding of geographical information/ideas logically, making relevant connections/relationships. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2)

Question Number	Using figure 4, suggest reasons for the differences in drinking water prices.	Mark
5(a)	<p style="text-align: center;">AO1 (2 marks)/AO2 (3 marks)</p> <p>Award 1 mark (AO1) for each relevant point and further expansion marks for reasons/explanations linked to the data shown (AO2), up to a maximum of 5 marks.</p> <ul style="list-style-type: none"> • Desalination is most expensive, some 8x the cost of surface water (1) because the technology is expensive to build and it requires energy (usually fossil fuels) to power the process (1). 	(5)

	<ul style="list-style-type: none"> Recycled water is about 3x the cost of groundwater, and close to the desalination costs (1) because of the collection and purification infrastructure (multi-stage process so expensive) needed to clean 'used' water and dispose of remaining waste (1). Both the 'natural sources' are cheap by comparison as processing is minimal (1) and water supplies are naturally replenished (1) but groundwater requires boreholes and energy to extract so is more than twice as expensive as surface sources (1). 	
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Question Number	Using named examples, assess how far water conservation can contribute to improved water security.	Mark
5(b)	<p style="text-align: center;">AO1 (5 marks)/AO2 (10 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p>AO1:</p> <ul style="list-style-type: none"> Water conservation includes a variety of ways to cut water use in the home or industrial / commercial and farming settings, and reduce water waste / system losses. Conservation reduces demand by using water more efficiently (so water security increases); it can include water recycling. Water security means affordable, reliable, accessible water supply for everyone: those that lack security often do so for physical and / or economic water insecurity reasons. There are many other ways of improving water security by increasing supply from surface, groundwater or desalinated sources. <p>AO2:</p> <ul style="list-style-type: none"> Water conservation can cut water use, reduce bills and improve water security if household appliances and utilities are used more efficiently; however, this is most likely in places with high levels of formal supply and incomes e.g., Singapore, the UK Water insecurity is often a major problem for farmers in both the developing and developed (Australia, California) world as agriculture is by far the largest water user; drip-irrigation, hydroponics and other conservation methods can reduce water use; in developing world settings bunds, 	(15)

		<p>'magic stones' and other intermediate tech methods can be useful.</p> <ul style="list-style-type: none"> • In some farming places very radical options may need to be considered (no-till farming, drought resistant crops) as water extraction has long exceeded recharge (Punjab) and the water insecurity situation is critical. • Water conservation could be seen as much less important in water insecure urban spaces e.g., megacities (Karachi, Lagos) where the issue is usually economic water insecurity and where the 'solution' is perhaps better overall supply as basic water needs are not being met. • This, arguably, is why major water engineering is undertaken (dams (these are water storage, not water conservation), water transfers, distribution systems) to improve overall supply – although this may not benefit low-income groups as the cost of formal water connections is often too high (water supply systems are often subsidized for this reason). • In some places water quality is a major issue i.e., water exists but is contaminated / polluted so can't be used (so solutions need to focus on reducing pollution); other might argue that climate change and deforestation are at the root of rising water insecurity and without addressing these issues first, water conservation will make little difference to security long-term. • Some might argue that water conservation works best at a small scale i.e. a local / community solution, although Singapore might suggest it can be applied at a national scale – with political will and significant investment. <p>NB answers that do not address water conservation directly are likely to be max L2.</p>	
Level	Mark	Descriptor	
	0	No rewardable material.	
Level 1	1–4	<ul style="list-style-type: none"> • Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1) • Applies knowledge and understanding of geographical information/ideas, making limited and rarely logical connections/relationships, to produce an interpretation with limited relevance and/or support. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce an unsupported or generic conclusion, drawn from an argument that is unbalanced or lacks coherence. (AO2) 	

Level 2	5-8	<ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding of geographical information/ideas with limited but logical connections/relationships to produce a partial interpretation that is supported by some evidence but has limited coherence. (AO2) • Applies knowledge and understanding of geographical information/ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2)
Level 3	9-12	<ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding of geographical information/ideas logically, making some relevant connections/relationships. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce a partial but coherent interpretation that is mostly relevant and supported by evidence. (AO2)
Level 4	13-15	<ul style="list-style-type: none"> • Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Applies knowledge and understanding of geographical information/ideas logically, making relevant connections/relationships. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2)

Question number	To what extent do superpowers and emerging powers play a positive role in responding to conflict and other global crises?	Mark
6	<p style="text-align: center;">AO1 (5 marks)/AO2 (15 marks)</p> <p>Marking instructions</p> <p>Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Responses that demonstrate only AO1 without any AO2 should be awarded marks as follows:</p> <ul style="list-style-type: none"> • Level 1 AO1 performance: 1 mark • Level 2 AO1 performance: 2 marks • Level 3 AO1 performance: 3 marks • Level 4 AO1 performance: 4–5 marks 	

	<p>Indicative content guidance</p> <p>The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p>AO1:</p> <ul style="list-style-type: none"> • Superpowers, and to a lesser extent emerging powers, have the ability to project power and influence globally. • They are usually members of influential IGOs: WB, IMF, UNSC and WTO with economic, security and political aims • Conflict includes a spectrum of situations from trade / diplomatic / territorial disputes to armed conflict. • Crisis response includes responding to natural disasters, war, famine, pandemic and economic crises. <p>AO2:</p> <ul style="list-style-type: none"> • Major players, the USA, EU and to a lesser extent China play a crucial role in economic stability and in the past have responded to the 2008 GFC by supporting the global economy with their own policies and via the IMF / UN; arguably this has created financial stability but it is not without costs i.e., long-term debt and growing inequality. • Through IGOs, superpowers influence WB and IMF policies that include structural adjustment and HIPC which are controversial (a focus on IGOs needs to be in the context of SP/ EP role within IGOs). • Disaster response e.g., Haiti in 2010 is often led by superpowers especially the EU, USA and Japan – often with positive results at least in the short-term; China plays a smaller role. • Some might argue that conflict is actually sponsored by superpowers e.g., proxy wars in the past such as Vietnam and Angola so the role here is much less positive; the Russia-Ukraine situation suggests superpowers can, even today, be seen as aggressors and create instability; China's actions in the South China Sea and the USA's actions in the Middle East and Central America might be also seen as destabilising not stabilising and therefore not positive. • Some might argue the USA and EU response to the 2021-22 Ukraine war has been more positive; China's perhaps ambivalent at best. • The USA's response to terrorism / ISIS is portrayed as positive, but this is contested by many countries who see the USA and allies as anti-Islam and point to the situations in Afghanistan, Syria and Iraq as evidence that the USA's role as a 'world police' has as many negative outcomes as positive ones. • The GW threat might be seen as a crisis requiring a leadership response and some could argue both China and the USA have 	(20)
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		<p>failed to make a positive contribution to reducing emissions – at least when compared to the EU, so their role is questionable and perhaps more about economic self-interest than global leadership (also a possible argument in terms of economic or security self-interest, as opposed to common good).</p> <ul style="list-style-type: none"> • Much will depend on the examples chosen and the accuracy of supporting evidence linked to convincing and balanced arguments. 	
Level	Mark	Descriptor	
	0	No rewardable material.	
Level 1	1–5	<ul style="list-style-type: none"> • Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1) • Applies knowledge and understanding of geographical ideas, making limited and rarely logical connections/relationships. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce an interpretation with limited coherence and support from evidence. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce an unsupported or generic conclusion, drawn from an argument that is unbalanced or lacks coherence. (AO2) 	
Level 2	6–10	<ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding of geographical information/ideas with limited but logical connections/relationships. (AO2) • Applies knowledge and understanding of geographical ideas in order to produce a partial interpretation that is supported by some evidence but has limited coherence. (AO2) • Applies knowledge and understanding of geographical information/ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2) 	
Level 3	11–15	<ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is mostly relevant and accurate. (AO1) • Applies knowledge and understanding of geographical information/ideas to find some logical and relevant connections/relationships. (AO2) • Applies knowledge and understanding of geographical ideas in order to produce a partial but coherent interpretation that is supported by some evidence. (AO2) 	

		<ul style="list-style-type: none"> Applies knowledge and understanding of geographical information/ideas to come to a conclusion, largely supported by an argument that may be unbalanced or partially coherent. (AO2)
Level 4	16-20	<ul style="list-style-type: none"> Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) Applies knowledge and understanding of geographical information/ideas to find fully logical and relevant connections/relationships. (AO2) Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is supported by evidence. (AO2) Applies knowledge and understanding of geographical information/ideas to come to a rational, substantiated conclusion, fully supported by a balanced argument that is drawn together coherently. (AO2)

Question Number	To what extent do government policies explain why some countries have made more development progress than others?	Mark
7	<p style="text-align: center;">AO1 (5 marks)/AO2 (15 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. Responses that demonstrate only AO1 without any AO2 should be awarded marks as follows:</p> <ul style="list-style-type: none"> Level 1 AO1 performance: 1 mark Level 2 AO1 performance: 2 marks Level 3 AO1 performance: 3 marks Level 4 AO1 performance: 4–5 marks <p>Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p>AO1:</p> <ul style="list-style-type: none"> Government policies include investment in education, health and infrastructure (possibly in an MDG/SDG context) as well as policies towards FDI and trade. Government ability to positively impact on development is strongly related to the quality of governance and political stability Development progress can be viewed in economic terms (GDP, GDP per capita) or in broader terms i.e., social progress, equality, democracy 	(20)

	<ul style="list-style-type: none"> There are many other factors that might affect development progress e.g., globalisation, trade, aid, natural resources, conflict so it is multi-faceted. <p>AO2</p> <ul style="list-style-type: none"> Some countries could be viewed as being much more open to trade, investment and economic development than others e.g., China, Vietnam and this is a result of government policies and has created wealth and development – at least for some. Policies towards education, women, social services and health are often positive in terms of outcome but rely on funding and may only benefit some groups; in some countries development progress has happened for some groups but not others (South Africa, Myanmar) often for reasons linked to discrimination (government policy in some cases) Widespread corruption and poor governance could be argued as a key reason some places are held back and fail to make progress (Haiti, Myanmar) – governments do not prioritize development but rather their own enrichment. Some might argue that Dependency Theory and poor terms of trade (neo-colonialism) mean that government policies make little over all difference in some developing countries, because the global economic and political system is stacked against progress. Progress may be argued to have as much to do with external aid and the work of NGOs i.e., outside forces that promote development rather than internal government actions. Limited development progress in some developing countries could be blamed on war and conflict, land-locked situation and even pressure on resources i.e., water resources and farming due to GW: so progress faces a number of barriers and frequent setbacks. Much will depend on the examples chosen and the accuracy of supporting evidence linked to convincing and balanced arguments. 		
Level	Mark	Descriptor	
	0	No rewardable material.	
Level 1	1–5	<ul style="list-style-type: none"> Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1) Applies knowledge and understanding of geographical ideas, making limited and rarely logical connections/relationships. (AO2) 	

		<ul style="list-style-type: none"> • Applies knowledge and understanding of geographical information/ideas to produce an interpretation with limited coherence and support from evidence. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce an unsupported or generic conclusion, drawn from an argument that is unbalanced or lacks coherence. (AO2)
Level 2	6-10	<ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding of geographical information/ideas with limited but logical connections/relationships. (AO2) • Applies knowledge and understanding of geographical ideas in order to produce a partial interpretation that is supported by some evidence but has limited coherence. (AO2) • Applies knowledge and understanding of geographical information/ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2)
Level 3	11-15	<ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is mostly relevant and accurate. (AO1) • Applies knowledge and understanding of geographical information/ideas to find some logical and relevant connections/relationships. (AO2) • Applies knowledge and understanding of geographical ideas in order to produce a partial but coherent interpretation that is supported by some evidence. (AO2) • Applies knowledge and understanding of geographical information/ideas to come to a conclusion, largely supported by an argument that may be unbalanced or partially coherent. (AO2)
Level 4	16-20	<ul style="list-style-type: none"> • Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Applies knowledge and understanding of geographical information/ideas to find fully logical and relevant connections/relationships. (AO2) • Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is supported by evidence. (AO2) • Applies knowledge and understanding of geographical information/ideas to come to a rational, substantiated conclusion, fully supported by a balanced argument that is drawn together coherently. (AO2)

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