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## Mark Scheme (Results)

January 2022

Pearson Edexcel International A Level  
In Geography (WGE03)

Paper 3: Contested Planet

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January 2022

Question Paper Log Number P70696A

Publications Code WGE03\_01\_2201\_MS

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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.

Question number	Answer	
	Using Figure 1, suggest reasons for the pattern of annual precipitation. (10)	
<b>1</b>	<p style="text-align: center;"><b>AO1 (4 marks)/AO2 (6 marks)</b></p> <p><b>Marking instructions</b> 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><b>Indicative content guidance</b> 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"> <li>• Precipitation levels are high along the western maritime coastal fringes of Europe, ranging from over 2000mm on the Norwegian and Scottish coasts, to 1001-1500 in western Ireland and Spain.</li> <li>• Mountain areas in central and southern Europe (Alps, Pyrenees, Dolomites) have 1500mm +</li> <li>• Broadly speaking the further east into the continent the lower the rainfall, falling to under 500mm fringing the Black Sea.</li> <li>• North Africa has low rainfall of under 500mm as do areas inside the Arctic e.g. Northern Finland.</li> </ul> <p>AO2:</p> <ul style="list-style-type: none"> <li>• Western coasts experience frontal rainfall brought in by mid-latitude depressions on the prevailing westerly air-flow; cold, warm and occluded fronts carry moisture in from the Atlantic.</li> <li>• Conversely, further east continentality creates drier conditions as low pressure weather systems have dissipated so there is much less frontal rainfall.</li> <li>• High altitude mountains generate orographic rainfall; warm moist air is forced to rise, cool and condense forming clouds and precipitation – which often falls as snow; some low precipitation areas are in a rain-shadow e.g. eastern England.</li> <li>• Northern most areas, and areas to the east in Russia are often under the influence of polar continental air especially in winter; the subsiding air is dry and produces little precipitation.</li> <li>• The same is true of North Africa which is influenced by dry Tropical continental high pressure, which is subsiding and therefore has little in the way of cloud or precipitation.</li> </ul>	
Level	Mark	Descriptor
	<b>0</b>	No rewardable material.
<b>Level 1</b>	<b>1-4</b>	<ul style="list-style-type: none"> <li>• Demonstrates isolated or generic elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1)</li> <li>• Applies knowledge and understanding to geographical information inconsistently. Connections/relationships between stimulus material and the question may be irrelevant. (AO2)</li> </ul>

		<ul style="list-style-type: none"> <li>• Applies knowledge and understanding of geographical information/ideas to produce an interpretation with limited relevance and/or support. (AO2)</li> </ul>
<b>Level 2</b>	<b>5-7</b>	<ul style="list-style-type: none"> <li>• Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1)</li> <li>• Applies knowledge and understanding to geographical information to find some relevant connections/relationships between stimulus material and the question. (AO2)</li> <li>• Applies knowledge and understanding of geographical information/ideas to produce a partial but coherent interpretation that is mostly relevant and supported by evidence. (AO2)</li> </ul>
<b>Level 3</b>	<b>8-10</b>	<ul style="list-style-type: none"> <li>• Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1)</li> <li>• Applies knowledge and understanding to geographical information logically to find fully relevant connections/relationships between stimulus material and the question. (AO2)</li> <li>• Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2)</li> </ul>

Question number	Using Figure 2, explain the changes to the nutrient cycle as a result of deforestation of the tropical rainforest. (10)
<b>2 (a)</b>	<p style="text-align: center;"><b>AO1 (4 marks) /AO2 (6 marks)</b></p> <p><b>Marking instructions</b> 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><b>Indicative content guidance</b> 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"> <li>• All of the nutrient stores reduce in size due to deforestation, but the biomass store reduces the most.</li> <li>• The cycle is preserved, but the size of the pathways between stores is much smaller after deforestation.</li> <li>• Both surface runoff and leaching increase in size after deforestation.</li> <li>• Precipitation is reduced as an input, as is weathering.</li> </ul> <p>AO2:</p> <ul style="list-style-type: none"> <li>• Deforestation removes much of the forest biomass as trees are destroyed, so the biomass store shrinks in size dramatically.</li> <li>• With less biomass there is less fallout and less decay to the soil; this means the smaller soil store cannot provide nutrients for growth.</li> </ul>

		<ul style="list-style-type: none"> <li>• Removal of the trees reduces interception, so any precipitation is more likely to become surface runoff (which also increases flood risk) and remove nutrients via soil erosion.</li> <li>• With the soil no longer protected by tree cover, more rain quickly enters the soil washing an increased amount of nutrients away by leaching through the soil.</li> <li>• The drop in precipitation can be explained by a fall in evaporation, as the forest no longer provides a temporary store of water on leaves – so with less evaporation moisture in the air is lower, meaning lower precipitation.</li> <li>• Weathering decreases because the soil / rock interface is drier so chemical weathering, which requires water and high temperatures, is reduced.</li> </ul>
Level	Mark	Descriptor
	<b>0</b>	No rewardable material.
<b>Level 1</b>	<b>1-4</b>	<ul style="list-style-type: none"> <li>• Demonstrates isolated or generic elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1)</li> <li>• Applies knowledge and understanding to geographical information inconsistently. Connections/relationships between stimulus material and the question may be irrelevant. (AO2)</li> <li>• Applies knowledge and understanding of geographical information/ideas to produce an interpretation with limited relevance and/or support. (AO2)</li> </ul>
<b>Level 2</b>	<b>5-7</b>	<ul style="list-style-type: none"> <li>• Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1)</li> <li>• Applies knowledge and understanding to geographical information to find some relevant connections/relationships between stimulus material and the question. (AO2)</li> <li>• Applies knowledge and understanding of geographical information/ideas to produce a partial but coherent interpretation that is mostly relevant and supported by evidence. (AO2)</li> </ul>
<b>Level 3</b>	<b>8-10</b>	<ul style="list-style-type: none"> <li>• Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1)</li> <li>• Applies knowledge and understanding to geographical information logically to find fully relevant connections/relationships between stimulus material and the question. (AO2)</li> <li>• Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2)</li> </ul>

Question number	Evaluate the extent to which local approaches to managing ecosystems are more successful than global approaches. (15)
2 (b)	<p style="text-align: center;"><b>AO1 (5 marks)/AO2 (10 marks)</b></p> <p><b>Marking instructions</b> 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><b>Indicative content guidance</b> 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"> <li>• Managing ecosystems involves conservation strategies that seek to conserve species, areas and biodiversity.</li> <li>• Global approaches include CITES, and UN Biodiversity Action Plans (adopted nationally) plus UNESCO biosphere reserves.</li> <li>• Local strategies include national parks, sustainable forest reserves as well as zoos, and possibly ecosystem restoration.</li> <li>• Success might be measured in terms of halting decline, or even reversing decline; success may depend on the players involved.</li> </ul> <p>AO2</p> <ul style="list-style-type: none"> <li>• Local approaches might be seen as more responsive to local needs e.g. sustainable reserves that provide alternative incomes, education and community projects as well as protecting vulnerable ecosystems – although these often work with a global model such as UNESCO biosphere reserves.</li> <li>• National Parks can protect ecosystems: these vary from effectively wilderness areas to places with a high tourism presence (so might not be very effective); some local areas are too small to protect some species, and many suffer from issues such as poaching or over-hunting.</li> <li>• Some local approaches suffer from under-funding, or are funded by NGOs which can be unreliable and variable; ecosystem restoration is a costly local approach not widely used but with some notable successes e.g. the Florida everglades.</li> <li>• Global approaches, such as BAPs, effectively provide a framework for national governments to implement: this means implementation depends on political willpower and funding; issues such as local corruption can undermine efforts even if on paper a BAP appears to have strong aims.</li> <li>• Local Wildlife Trusts, especially those in urban areas such as London, Sheffield and in SE Asia; Singapore – Sungei Buloh Wetland reserve, Hong Kong - Mai Po reserve and their success.</li> <li>• CITES is a global treaty that bans trade in endangered species, and around 38,000 have been protected; notable successes (ivory) have occurred but CITES is criticised for not protecting ecosystems, only species.</li> </ul>

		<ul style="list-style-type: none"> <li>• It could be argued that both local and global approaches suffer from the impact of context threats e.g. global climate change, which can undermine efforts at both scales.</li> <li>• As many threats are local then local management might be seen as stronger, as local understanding is essential to successful management.</li> <li>• Accept actions to tackle global warming but only if tied to biomes and ecosystems.</li> </ul>
4 <sup>th</sup> bulletLevel	Mark	Descriptor
	<b>0</b>	No rewardable material.
<b>Level 1</b>	<b>1-4</b>	<ul style="list-style-type: none"> <li>• Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1)</li> <li>• 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)</li> <li>• 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)</li> </ul>
<b>Level 2</b>	<b>5-8</b>	<ul style="list-style-type: none"> <li>• Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1)</li> <li>• 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)</li> <li>• Applies knowledge and understanding of geographical information/ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2)</li> </ul>
<b>Level 3</b>	<b>9-12</b>	<ul style="list-style-type: none"> <li>• Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1)</li> <li>• Applies knowledge and understanding of geographical information/ideas logically, making some relevant connections/relationships. (AO2)</li> <li>• Applies knowledge and understanding of geographical information/ideas to produce a partial but coherent interpretation that is mostly relevant and supported by evidence. (AO2)</li> </ul>
<b>Level 4</b>	<b>13-15</b>	<ul style="list-style-type: none"> <li>• Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1)</li> </ul>



	<ul style="list-style-type: none"> <li>• Applies knowledge and understanding of geographical information/ideas logically, making relevant connections/relationships. (AO2)</li> <li>• Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2)</li> </ul>
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Question number	Answer
	To what extent is the risk from natural hazards highest in megacities? (15)
<b>3</b>	<p style="text-align: center;"><b>AO1 (5 marks)/AO2 (10 marks)</b></p> <p><b>Marking instructions</b> 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><b>Indicative content guidance</b> 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"> <li>• Natural hazards include tectonic ones (earthquakes, tsunami, eruptions) and cyclones, as well as flooding and even wildfire risk.</li> <li>• Megacities are cities of over 10 million people, many of which are coastal in terms of locations and growing rapidly, and have youthful populations in many cases.</li> <li>• Some locations are more prone to hazards than others e.g. plate boundaries, and some people are more vulnerable than others due to level of development and other factors.</li> <li>• Many people not in megacities are at risk, including rural areas.</li> </ul> <p>AO2:</p> <ul style="list-style-type: none"> <li>• Megacities can have very high population densities, vulnerable people, slum housing and lack of infrastructure: in the developing and emerging world this increases risk where the megacity is located in an area of known hazard risk e.g. Manilla or Calcutta.</li> <li>• Some megacities are at lower risk because they do not experience many hazards e.g. Lagos, or because level of development and preparation reduces the risk e.g. LA or Toyko.</li> <li>• However, high magnitude earthquakes could cause devastation even in seemingly well prepared cities e.g. the impacts of the Kobe earthquake in Japan, repeated in Tokyo / Osaka.</li> <li>• Some megacities exist in hazard hotspots where cyclones, earthquakes, eruptions, tsunami – and coastal flooding as a result of sea level rise – could all occur; it’s possible that several hazards can occur close together in time, increasing risk.</li> <li>• A major disaster would overwhelm preparations and lead to soaring demand for food, water supply, shelter and health care – even in developed world megacities; higher risk of secondary impacts such as fires or disease.</li> </ul>

		<ul style="list-style-type: none"> <li>• Nevertheless, rural locations in some of the world's megadeltas have very high population densities as well as high levels of poverty, and populations that depend on food production to survive e.g. Mekong and Irrawaddy: these areas could be badly hit by cyclones affecting millions.</li> <li>• The hazard risk equation can be used to judge the level of risk in terms of the nature of the hazard, vulnerability and capacity to cope: long term coastal megacities at risk from sea-level rise, close to a tectonic boundary and in a cyclone track might be deemed to be especially at risk.</li> </ul>
Level	Mark	Descriptor
	<b>0</b>	No rewardable material.
<b>Level 1</b>	<b>1-4</b>	<ul style="list-style-type: none"> <li>• Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1)</li> <li>• 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)</li> <li>• 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)</li> </ul>
<b>Level 2</b>	<b>5-8</b>	<ul style="list-style-type: none"> <li>• Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1)</li> <li>• 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)</li> <li>• Applies knowledge and understanding of geographical information/ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2)</li> </ul>
<b>Level 3</b>	<b>9-12</b>	<ul style="list-style-type: none"> <li>• Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1)</li> <li>• Applies knowledge and understanding of geographical information/ideas logically, making some relevant connections/relationships. (AO2)</li> <li>• Applies knowledge and understanding of geographical information/ideas to produce a partial but coherent interpretation that is mostly relevant and supported by evidence. (AO2)</li> </ul>
<b>Level 4</b>	<b>13-15</b>	<ul style="list-style-type: none"> <li>• Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1)</li> </ul>

		<ul style="list-style-type: none"> <li>• Applies knowledge and understanding of geographical information/ideas logically, making relevant connections/relationships. (AO2)</li> <li>• Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2)</li> </ul>
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Question number	Using Figure 3, explain why the oil demand projections for Asia and Europe are very different. (5)	Mark
<b>4(a)</b>	<p style="text-align: center;"><b>AO1 (2 marks)/AO2 (3 marks)</b></p> <p>Award <b>1</b> 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"> <li>• Oil consumption is similar in 2010, but diverges by 25 million barrels by 2040 (1) because Asia's population and economy are projected to continue to grow, whereas Europe's growth is much less (1).</li> <li>• Europe's demand actually falls, albeit very slowly to 2040 (1) which could be explained by a move towards greener energy, efficiency and concerns about global warming (1); Asia's focus is on economic development not energy conservation and environmental issues (1).</li> <li>• Asia's growth is fairly steady, with demand nearly doubling by 2040 (1), caused by continued industrialisation and growing car use, as people consume more due to rising affluence. (1)</li> </ul>	<b>(5)</b>

Question number	Using named examples, assess the extent to which renewable energy sources could provide a secure energy future. (15)
<b>4(b)</b>	<p style="text-align: center;"><b>AO1 (5 marks)/AO2 (10 marks)</b></p> <p><b>Marking instructions</b> 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><b>Indicative content guidance</b> 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"> <li>• Renewable energy includes HEP, solar and wind – all of which have some physical constraints on use but are widely used, and growing rapidly.</li> <li>• A secure energy future implies affordable, accessible, reliable energy that meets demand.</li> </ul>

- Currently, fossil fuels provide the majority of energy globally, and in most countries (oil for transport, gas and coal for electricity and industry)
  - Other energy sources are widely used: biomass in the developing world, as well as nuclear energy and liquid biofuels.
- AO2:
- All renewables have physical constraints which limit their use seasonally, or prevent their economic use – so it could be argued that reliance on one renewable source is unlikely, but a mix may work: battery technology is not good enough to allow renewable energy to be stored currently.
  - While some renewables are more or less continuous (HEP) others are not (wind) so back up sources such as gas may be need to secure continuous electricity supply.
  - Renewables are usually domestic energy sources, so can be seen as more secure than energy imports; costs have fallen dramatically in terms of wind and solar in the last 10 years so affordability is increasing and many can compete on cost with fossil fuels.
  - Transport is dominated by oil use, and this is not easily replaced: electric transport is an immature and expensive technology and requires a major shift to implement (and may not be possible for air travel); biofuels represent an alternative but this is not fully renewable and has major environmental implications e.g. palm oil production in Indonesia.
  - It could be argued that a renewable future is possible, but may be some decades away: much will depend on the issue of who the secure energy future is for i.e. developed or developing world, and specific locations and their potential.
  - Alternatively, the low cost and abundant supply of some fossil fuels such as gas (fracking, shale gas) and low carbon footprint compared to coal and oil, could mean that this energy source is used long into the future because it is seen as reliable, cheap and relatively 'green'.

Level	Mark	Descriptor
	<b>0</b>	No rewardable material.
<b>Level 1</b>	<b>1-4</b>	<ul style="list-style-type: none"> <li>• Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1)</li> <li>• 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)</li> <li>• 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)</li> </ul>
<b>Level 2</b>	<b>5-8</b>	<ul style="list-style-type: none"> <li>• Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1)</li> </ul>

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

Question number	Using Figure 4, explain why the water demand projections for Africa and Europe are very different. (5)	Mark
<b>5(a)</b>	<p style="text-align: center;"><b>AO1 (2 marks)/AO2 (3 marks)</b></p> <p>Award <b>1</b> 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"> <li>• Water demand in Africa increases at an increasing rate, from 230 to 360 cu/km (1), because of rising population and increasing industrialisation, especially after 2040 / demand for water for farming to feed more / wealthier people (1).</li> <li>• In Europe demand rises slowly but drops by 5 cu/km after 2040 (1) which could result from population decline and / or greater efficiency in water use linked to environmental concerns (1).</li> <li>• Water use converges over time, with the gap between the two regions narrowing by 2040 (1), which suggests a convergence in terms of development level (1),</li> </ul>	<b>(5)</b>

	expected doubling of Africa population size, as life expectancy keeps increasing plus fertility still above replacement level (1).	
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Question number	Using named examples, assess the extent to which water supply can be a source of conflict. (15)
<b>5(b)</b>	<p style="text-align: center;"><b>AO1 (5 marks)/AO2 (10 marks)</b></p> <p><b>Marking instructions</b> 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><b>Indicative content guidance</b> 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"> <li>• Water supply can come from precipitation directly, rivers (including reservoirs), groundwater aquifers and in some cases the sea via desalination.</li> <li>• Water demand is generally rising, and in some cases is rising sharply due to a combination of economic development and population increase.</li> <li>• Some water supplies are shared i.e. transboundary rivers and aquifers: the boundaries can be international or internal.</li> <li>• Conflict ranges from minor, local disputes over supply to potentially serious international disputes and (very rarely) open conflict.</li> </ul> <p>AO2:</p> <ul style="list-style-type: none"> <li>• Most water supply does not generate conflict, as water is usually supplied locally from local sources; however as demand rises in the future the potential for conflict increases.</li> <li>• Internal water transfers e.g. the Colorado River in the USA, between North and South California and South to North China raise issues about fairness, environmental issues and long term sustainability of supply which can cause local disputes – especially where there are multiple water users with conflicting views e.g. the Colorado River.</li> <li>• Although rarer, international transboundary disputes do occur such as around China’s dam building on the Mekong, and Ethiopia and Egypt’s dispute over use of the River Nile: however most transboundary rivers are managed for multiple use (Berlin / Helsinki Rules) so conflict is minimised.</li> <li>• Conflict is much more likely when there are pre-existing, wider tensions e.g. between India and Bangladesh over the Ganges, or in areas where supply is limited or declining e.g. the River Niles.</li> <li>• Some water supply leads to different conflict: desalination is criticised on environmental grounds (energy, pollution) rather than causing conflict between different users of the same water source.</li> </ul>

Level	Mark	Descriptor
	<b>0</b>	No rewardable material.
<b>Level 1</b>	<b>1-4</b>	<ul style="list-style-type: none"> <li>• Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1)</li> <li>• 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)</li> <li>• 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)</li> </ul>
<b>Level 2</b>	<b>5-8</b>	<ul style="list-style-type: none"> <li>• Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1)</li> <li>• 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)</li> <li>• Applies knowledge and understanding of geographical information/ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2)</li> </ul>
<b>Level 3</b>	<b>9-12</b>	<ul style="list-style-type: none"> <li>• Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1)</li> <li>• Applies knowledge and understanding of geographical information/ideas logically, making some relevant connections/relationships. (AO2)</li> <li>• Applies knowledge and understanding of geographical information/ideas to produce a partial but coherent interpretation that is mostly relevant and supported by evidence. (AO2)</li> </ul>
<b>Level 4</b>	<b>13-15</b>	<ul style="list-style-type: none"> <li>• Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1)</li> <li>• Applies knowledge and understanding of geographical information/ideas logically, making relevant connections/relationships. (AO2)</li> <li>• Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2)</li> </ul>

Question number	To what extent is 'soft' power more important than 'hard' power for maintaining superpower influence in the 21 <sup>st</sup> century?" (20)
6	<p style="text-align: center;"><b>AO1 (5 marks)/AO2 (15 marks)</b></p> <p><b>Marking instructions</b></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. Responses that demonstrate <b>only</b> AO1 without any AO2 should be awarded marks as follows:</p> <ul style="list-style-type: none"> <li>• Level 1 AO1 performance: 1 mark</li> <li>• Level 2 AO1 performance: 2 marks</li> <li>• Level 3 AO1 performance: 3 marks</li> <li>• Level 4 AO1 performance: 4–5 marks</li> </ul> <p><b>Indicative content guidance</b></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"> <li>• Hard power is military power (the threat of, or use of, force) and economic power in the form of sanctions or leverage.</li> <li>• Soft power is cultural influence, diplomatic influence, and the positive influence of values and ideology: they can be characterised as a carrot versus a stick.</li> <li>• Modern analyses of power can include 'smart' (soft + hard used together) as well as 'sharp' power (internal influence by another State)</li> <li>• Power can be quantified in a variety of ways using indicators and indices.</li> <li>• Power is often characterised as based on economic, military, cultural, resources (physical and human) factors.</li> </ul> <p>AO2:</p> <ul style="list-style-type: none"> <li>• It could be argued that power in the past was more often hard; military power was used to colonise many parts of the world by European countries and to a lesser extent the USA; however even in the colonial era cultural influence was important e.g. British values, traditions and sport.</li> <li>• Hard power was evident during the Cold War era when the USA and USSR built up huge military arsenals, including nuclear weapons, although these were not directly used; even in the 1945-1990 period the power of ideology (freedom, democracy, capitalism in the case of the USA) was important in creating and keeping allies and trade was vital in fostering economic development among allies (Japan, Taiwan, South Korea).</li> <li>• Hard power can be seen in the Korean, Vietnam and Gulf Wars as being used to demonstrate the influence of either or both of the USA and USSR.</li> <li>• Post 1945 the influence of IGOs such as the UN, WB, WTO and others has been important in spreading western economics – this can be seen as largely soft power.</li> </ul>



- It might be argued that soft power is more important today, because wars are less common and globalisation has meant the influence of western brands and media has become very pervasive; however hard power is still common e.g. the 2008 and 2014 invasions of Georgia and Crimea by Russia, and China's 'island building' in the South China Sea – these are all expressions of military and economic might.
- Russia, North Korea, China and others have been accused of using sharp power in terms of hacking, interference in US / EU elections: it might be argued that new types of power are emerging in the 21<sup>st</sup> Century which are not easily characterised as 'hard' or 'soft'.

Level	Mark	Descriptor
	<b>0</b>	No rewardable material.
<b>Level 1</b>	<b>1-5</b>	<ul style="list-style-type: none"> <li>• Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1)</li> <li>• Applies knowledge and understanding of geographical ideas, making limited and rarely logical connections/relationships. (AO2)</li> <li>• Applies knowledge and understanding of geographical information/ideas to produce an interpretation with limited coherence and support from evidence. (AO2)</li> <li>• 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)</li> </ul>
<b>Level 2</b>	<b>6-10</b>	<ul style="list-style-type: none"> <li>• Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1)</li> <li>• Applies knowledge and understanding of geographical information/ideas with limited but logical connections/relationships. (AO2)</li> <li>• 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)</li> <li>• Applies knowledge and understanding of geographical information/ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2)</li> </ul>
<b>Level 3</b>	<b>11-15</b>	<ul style="list-style-type: none"> <li>• Demonstrates geographical knowledge and understanding, which is mostly relevant and accurate. (AO1)</li> <li>• Applies knowledge and understanding of geographical information/ideas to find some logical and relevant connections/relationships. (AO2)</li> <li>• Applies knowledge and understanding of geographical ideas in order to produce a partial but coherent interpretation that is supported by some evidence. (AO2)</li> </ul>

		<ul style="list-style-type: none"> <li>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)</li> </ul>
<b>Level 4</b>	<b>16-20</b>	<ul style="list-style-type: none"> <li>Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1)</li> <li>Applies knowledge and understanding of geographical information/ideas to find fully logical and relevant connections/relationships. (AO2)</li> <li>Applies knowledge and understanding of geographical information/ideas to produce a full and coherent interpretation that is supported by evidence. (AO2)</li> <li>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)</li> </ul>

Question number	To what extent is trade more important than aid in reducing the development gap? (20)
<b>7</b>	<p style="text-align: center;"><b>AO1 (5 marks)/AO2 (15 marks)</b></p> <p><b>Marking instructions</b></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. Responses that demonstrate <b>only</b> AO1 without any AO2 should be awarded marks as follows:</p> <ul style="list-style-type: none"> <li>Level 1 AO1 performance: 1 mark</li> <li>Level 2 AO1 performance: 2 marks</li> <li>Level 3 AO1 performance: 3 marks</li> <li>Level 4 AO1 performance: 4–5 marks</li> </ul> <p><b>Indicative content guidance</b></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"> <li>Trade is the exchange of goods or services to create wealth, and is often seen as the ‘engine’ of economic growth and development.</li> <li>Aid is money, goods or technical help given from one group to another to promote development.</li> <li>Aid can be multilateral (loans from the WB and others), bilateral (between governments) or be from NGOs or even companies.</li> <li>The development gap is the wealth gap, especially between the developing and developed world; the emerging world can be seen as already in the process of moving across the gap.</li> </ul> <p>AO2:</p> <ul style="list-style-type: none"> <li>Emerging countries could be argued to provide the best evidence that trade can reduce the gap, because many like China, Vietnam</li> </ul>

and Brazil have increased their p.c. income through trade and globalisation – and have had relatively little in the way of aid.

- FDI has been a key aspect of the development of trade, and increased employment and economic development in Asian economies that have moved from developing to emerging status.
- However, trade is weaker in developing countries especially in Sub-Saharan Africa where left-wing economists (Frank) argue trade has trapped some countries into neo-colonial relations: they export low-value commodities and import high-value manufactured goods leaving them with little overall economic benefit.
- In the last few decades aid from China into Africa, in the form of infrastructure development has provided a different model: China invests to aid exploitation of natural resources, and African countries benefits from new road, rail, ports and power which can be used for wider economic development: some argue this is the same neo-colonialism in different clothes.
- Multilateral aid from the WB and ADB has often been linked to the issue of debt, and bilateral aid to the issue of tied aid and the undue influence of developed countries – so aid can be seen as a negative, despite some development projects being successful.
- HIPC, a supposed solution to the debt issues has both costs and benefits.
- Aid from NGOs is sometimes argued as better at narrowing the gap because it is small scale, focused on communities and meeting basic needs and has less political and economic ‘baggage’: however NGO aid can be criticised as being small in scale, and perhaps lacking the power to generate wealth – so its ability to narrow the gap is small.
- Some might argue for alternative approaches, such as Fair Trade or the MDGs / SDGs as better models for reducing the development gap, or even independent development such as has occurred in India and to some degree China.

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

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