

Mark Scheme

Winter 2020

Pearson Edexcel IAL
In Geography (2001)
Paper 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.

<table>
<tr><td>Question number</td><td colspan="2">Answer</td></tr>
<tr><td>1(a)</td><td colspan="2">AO1 (4 marks)/AO2 (6 marks)
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.

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:

AO1:
• Drought is a long-term hazard that builds over time: a period of below average rainfall.
• California is part of a developed country, with high water use for industry, farming and domestic consumption.
• Drought has a range of impacts; directly on farmers reducing yields and increasing costs and possibly on consumers in terms of supply reductions / higher prices
• Drought could be related to other hazards, such as wildfires which combined with water shortages could have environmental impacts as well as human ones.
AO2:
• Figure 1 shows 10 years of drought conditions, and drought builds over time to become widespread and exceptional 2014-16, but it is not continuous and there are normal periods 2010-2011 – this could make management challenging.
• Some periods are much less severe e.g. 2007-2009 whereas 2013-2016 is very severe (over 50% of the state is ‘exceptional’ in 2014), plus the onset of the extreme period is quite rapid in 2013 challenging water managers.
• Farmers are likely to have been severely affected by the 2013-16 drought as it is exceptional and multi-year: higher irrigation costs, lower yields and profits, possibly having to change crops.
• During the extreme / exceptional period shortages for consumers are a possibility: hosepipe / car wash bans, higher costs to businesses if water prices increase – longer term shift towards ‘dry gardens’ and open spaces. Managing water supply could mean water transfers between regions and calls for more desalination (as in the Australian Millennium drought) which all have high economic costs.
• The risk of wildfires rises as drought becomes more severe, and these can have devastating impacts on people and their property as well as high management costs and environmental impacts; loss of landscape, tourism and leisure amenity value.
• Stronger answers should recognise that impacts do not include famine, personal water shortages, as the USA is a developed country: the USA is well equipped to cope so the impacts may be more economic than on people.</td></tr>
<tr><td>Level</td><td>Mark</td><td>Descriptor</td></tr>
<tr><td></td><td>0</td><td>No rewardable material.</td></tr>
<tr><td>Level 1</td><td>1–4</td><td>• Demonstrates isolated or generic elements of geographical</td></tr>
</table>

		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**	• 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**	• 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	Answer
1(b)	**AO1 (5 marks)/AO2 (10 marks)** **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. **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: AO1: • The range of organisations / groups includes planners, first responders, community groups, NGOs and aid organisations, governments and their agencies among others. • Meteorologists / scientists are important in terms of prediction and warning; disaster management groups include national organisations such as FEMA as well as monitoring organisations like FEWSnet. • Extreme events include tropical cyclones, drought, heatwaves and others; these vary spatially and temporally. • Successful management implies reduced risk or injury / death, minimising economic losses and better preparation for the next hazard i.e. reduced risk. AO2: • Some might argue that scientists / meteorologists are critical because weather hazards can often be predicted – especially storms and cyclones; warning and evacuation depend on these predictions and are perhaps the best way to reduce loss of life. • On the other hand, planners can reduce risk by land use zoning and

	building defences e.g. against storm surges – so reducing the risk of human impacts; these may be less important in developing countries where lack of financial resources limits physical protection. • Disaster managers and first responders are often responsible during a hazard / disaster – but sometimes fail in their task e.g. FEMA during hurricane Katrina in 2005, or questions of forest management (NPS) and wildfire response (Firefighters, federal and local government) in California e.g. Paradise Fire. • In developing countries, NGOs and aid organisations might be seen as more important than in developed countries in terms of immediate response and meeting basic needs post-disaster; perhaps more so during a long-term hazard like drought. Aid organisations may be responsible for cyclone shelters, education and planning in developing countries so their role might be seen as especially vital due to less capacity among government organisations. • First responders have a critical role in relation to storms, saving lives in the first 24-48 hours; it could be argued planners and other organisations than engage in longer-term management can reduce the need for them by better preparation and prediction. • Communities can help themselves via local organisations especially in developing countries; it might be argued that this is because if necessity due to lack of alternatives. • Contested role of the media: potential help in terms of awareness, warning and evacuation publicity; holding managers to account. • Other factors – location, magnitude, frequency, predictability, development level and others – might be mentioned as part of a wider evaluation of the degree to which management is successful. NB There is no restriction on 'groups and organisations' but they must be relevant and more specific ones are likely to provide stronger evidence.	
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–4**	• 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**	• 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**	• 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**	• 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	Answer
2	**AO1 (4 marks) /AO2 (6 marks)** **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. **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: AO1: • Populations of elephants are likely to be affected by human threats, but also conservation efforts. • Most of the countries shown are low income, developing countries which may not prioritise conservation. • Few populations are stable; the balance of increasing and decreasing is roughly equal in terms of areas (but may not be in terms of numbers of elephants) • Most populations are found in East Africa and southern Africa with only smaller, scattered areas elsewhere – desert elephant, Namibia. AO2: • Populations could be decreasing for a range of reasons including illegal hunting (for ivory) and others factors such as disease, conflict between elephant populations and humans e.g. farmers. • Climate change, habitat change, and habitat destruction (deforestation, expansion of farming, urbanisation) are possibilities as the area that is suitable for elephants shrinks and this affects the health of the population – some might argue a combination of threats is a work. • Some countries have mostly decreasing populations e.g. Tanzania and Zimbabwe which might suggest policing of hunting, use of CITES and other management factors are weak here – possibly due to lack of funding or lack of political will. • In other countries like Kenya, Benin and Zambia most / all populations are increasing perhaps because of more effective conservation efforts such as National Parks; funding from governments and NGOs might be better allowing conservation to be more effective; effective monitoring and ranger programmes plus effective implementation of CITES. • It could be argued that in places were tourism e.g. safaris is important to the economy of a country / area elephants are conserved because of the economic

	benefits – this could be argued for Kenya and South Africa. Unsustainable / over-tourism (trophy-hunting) could have a negative impact. • Some populations cross national borders; migration (driven by climate change, or habitat destruction) could be a factor affecting status / health – with some populations increasing while others decline. • Populations in East / Southern Africa could be more at risk because of easier access to lucrative markets for ivory in Asia – so these populations are more targeted by poachers and illegal trade. • Possible links to the Kuznets Curve concept i.e. changes attitudes in more developed Botswana / RSA compared to less developed countries.	
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–4**	• 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**	• 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**	• 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)

<table>
<tr><th>Question number</th><th colspan="2">Answer</th></tr>
<tr><td>3</td><td colspan="2">
AO1 (5 marks)/AO2 (10 marks)
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.

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:

AO1:
• Urbanisation is the increasing proportion of people living in towns and cities, now over 50% worldwide.
• Rates of urbanisation are increasing in Asia and Africa but are more stable elsewhere.
• Urban areas are concentrated on coasts and rivers, so greater urbanisation tends to concentrate people in geographically similar areas.
• Hazards (natural) involve cyclones, storms and drought as well as tectonic hazards, all of which could affect urban areas.
• ‘Hazards’ could involve other interpretations – such as air pollution health risks, spread of diseases and many others.
AO2:
• The higher population densities urbanisation brings could increase risk from natural hazards, by concentrating people in smaller areas – therefore the risk from cyclones and earthquakes increases; this is likely to be more relevant in developing cities where slums are more common, and poverty is high (low coping capacity).
• On the other hand, urban areas might be better prepared to cope with hazards e.g. warning and evacuation systems, plus people are generally higher income and better educated than in rural areas.
• Some hazards, such as drought are more associated with rural areas and reliance on food production, so urbanisation could reduce this risk – but increase other health risks associated with poor air quality and sanitation.
• Many urban areas in developed countries, and emerging Asia, are at risk of sea-level rise and increased river flooding – both of which have been linked to global warming; concentrated populations could be at risk although perhaps more so in the future.
• As urbanisation is, to some extent, associated with economic development it could be argued that with urbanisation comes increased capacity to cope overall and better hazard management systems – although in some cases the scale of disasters and poor management work against this e.g. hurricane Katrina or 2011 Japanese earthquake.
• Urbanisation, linked to economic development, could be seen as a cause o global warming and therefore to changes in frequency / magnitude of hydro-met hazards; as well as habitat destruction (coral reefs) making coastal places more vulnerable to cyclones / storm surges.
• Trends in deaths from natural disasters are down in the last 20 years, which could suggest a more urbanised world is also overall safer.
</td></tr>
<tr><td>Level</td><td>Mark</td><td>Descriptor</td></tr>
<tr><td></td><td>0</td><td>No rewardable material.</td></tr>
<tr><td>Level 1</td><td>1–4</td><td>• Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1)
• Applies knowledge and understanding of geographical</td></tr>
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		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**	• 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**	• 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**	• 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	Answer	Mark
4(a)	**AO1 (2 marks)/AO3 (3 marks)** Award **1** mark (AO1) for each relevant point and further expansion marks for reasons/explanations linked to the data shown (AO3), up to a maximum of 5 marks. • The high / low projections and wide difference between them of 6000 MTOE (1) could be explained by different future levels of population and / or levels of affluence especially in emerging countries, influencing consumption (1) • The lowest projection showing a slight dip could be a 'peak oil' scenario (1) and influenced by the need to conserve energy / be more efficient because traditional fossil fuels are expensive / in short supply (1) • High projections could represent a 'business as usual' future with high consumption and high fossil fuel use (1) whereas the lowest projection could be a 'green' future where issues such as global warming influence consumption (1).	**(5)**

	• There are numerous economic, environmental and technological variables at work each of which could influence supply / demand (1) and these become more uncertain further into the future – hence the widening uncertainty shown (1). Accept other alternative explanations linked to Figure 3.	

Question number	Answer
4(b)	**AO1 (5 marks)/AO2 (10 marks)** **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. **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: AO1: • Nuclear power has been around since the 1950s, and over 400 plants have been built. • There is wide variation in its use: 70% of energy in France but none in some countries; it is more common in the developed world • Accidents have influenced governments and public opinion, resulting in use stopping in some countries (Germany, Italy, Japan: restarted after hiatus) • Nuclear power has 'green' credentials in some respects (carbon) but not in others (waste); energy demand is only likely to increase in the future so multiple energy sources are needed. AO2: • There are significant economic cost issues with nuclear power, with new plants costing $10 billion + in developed countries and electricity being no cheaper than gas or wind power in most cases, however it is a long-term investment with plants having a 40+ year lifespan and it provides reliable, continuous baseload power. • For countries with high demand but low domestic fossil fuel reserves (France, Japan in the past, China) it may make sense as a reliable, relatively clean energy source; China continues to invest heavily in nuclear for these reasons and because of the environmental health impacts of the coal alternative. • Environmental issues, especially the unresolved issue of high-level nuclear waste, are a key factor in the rejection of nuclear power by public opinion and environmental groups; this is related to nuclear proliferation issues. • Nuclear is unlikely to be an option in developing countries on cost and access to technology grounds; in addition, the falling cost and environmental credential of renewable energy (wind, solar, HEP) means it is less attractive than it once was. • Some countries would have better energy security developing domestic renewable sources, because nuclear would mean relying on foreign imports of uranium and foreign technology. • Globally, the development of nuclear power has stalled with only a few countries developing it in a substantial way (China, India) where demand for energy continues to be very high – most countries have moved to alternatives; nuclear fusion is a possibility in the future, but the technology is still some way from being practical.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–4**	• 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**	• 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**	• 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**	• 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	Answer	Mark
5(a)	**AO1 (2 marks)/AO3 (3 marks)** Award **1** mark (AO1) for each relevant point and further expansion marks for reasons/explanations linked to the data shown (AO3), up to a maximum of 5 marks. • The high / low projections and wide difference between them of 3000 km^3 (1) could be explained by different future levels of population and / or levels of affluence influencing consumption (1) • The lowest projection could be a 'peak water' scenario (1) and influenced by the need to conserve water / be more efficient because supplies are expensive / in short supply (1) • High projections could represent a 'business as usual' future	**(5)**

	with high water use (1) whereas the lowest projection could be a 'green' future where issues such as global warming reduce consumption (1). • There are numerous economic, environmental and technological variables at work each of which could influence supply / demand (1) and these become more uncertain further into the future – hence the widening uncertainty shown (1). Accept other alternative explanations linked to Figure 4.	

Question number	Answer
5(b)	**AO1 (5 marks)/AO2 (10 marks)** **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. **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: AO1: • Intermediate technology is low cost, low-tech, small-scale and provides water supply solutions for small communities – often rural ones. • Examples include tube-wells, pumpkin tanks, small dams, basic water storage tanks and farming systems (bunds, tree-pits etc to conserve soil moisture). • It is often provided by NGOs, both local and international. • Many low-income, rural and urban places lack a clean, affordable, secure water supply as well as sanitation. • In some places water scarcity and water stress are key issues where intermediate technology can help but there are other solutions. AO2: • Intermediate technology can provide a basic, low-cost, reliable water supply to people in places which relied on dirty, intermittent supplies and suffered shortages and disease: it often utilises groundwater or simple surface storage – however it may not reach many people and leave some without a supply. • It is perhaps more effective in rural areas, whereas in densely populated urban areas use of the technology is harder and formal supplies (city government, private companies) may be more efficient – but potentially costly to install and for low income consumers. • In some cases, e.g. Bangladeshi tubewells, the water supply was effective but ultimately a failure due to arsenic levels in groundwater – so good intentions actually created a health crisis. • The small scale of intermediate technology is a problem where demand is high, and this means larger scale solutions involving dams, water treatment plants and piped supplies are seen as more reliable e.g. in Egypt. • There is a role for water conservation, improved farming systems, drought resistant crops and other solutions that may make existing supplies go further and reduce the need for new supply. • Despite the drawbacks, there are huge gains to be made from intermediate technology in terms of improved health, reduced need to collect water from distant sources on a daily basis – but as the technology often relies on NGOs it can't reach all of those in need in many cases. • It could be argued that in terms of scale of need, numbers who benefit, efficiency and longevity that large scale solutions are actually needed i.e.

	reservoirs, transfers – because intermediate technology can't be scaled up to meet demand.	
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–4**	• 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**	• 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**	• 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**	• 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	Answer
6	**AO1 (5 marks)/AO2 (15 marks)** **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: • 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

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:

AO1:

- Tensions can range from diplomatic disputes, to all-out conflict with a spectrum of actions and situations in between, involving two countries or many.
- Physical resources include land, mineral and fossil fuel wealth, and areas of sea / ocean and the biological resources and sub-sea minerals / energy resources they contain.
- Spheres of influence refer to the geographical areas countries feel they have influence over, politically and economically, to the exclusion of others.
- New superpowers include the emerging powers of China, India, Russia and others.
- Tensions can involve the existing superpowers such as the EU and USA as well as other countries.

AO2:

- In terms of spheres of influence, there are considerable tensions in the South China and East China Seas over territorial claims centred around islands / shoals and EEZs; this has increased tensions between China and neighbouring countries such as Taiwan, Indonesia and the Philippines.
- China's 'island building' and militarization of the seas has caused concern; China may be motivated by natural resources and protecting trade routes; the USA and its allies in the region (Japan, SK, Taiwan) see the area as part of the US sphere of influence.
- Disputes and tensions should not be inevitable as the UN, through UNCLOS, has mechanisms to resolve EEZ disputes – but this relies on all parties agreeing to mediation.
- China's new silk road (one belt one road initiative) has the potential to create tensions between India and China especially, as China expands its trade routes; similarly China's economic interest in Africa could raise tensions as that continent has in the past been the economic sphere of Europe and the US; much of China's activity in Africa centres on oil and mineral physical resources – however it has the potential to be economically beneficial and may be viewed more as an economic bargain than a geopolitical threat.
- Russia's emergence as a BRIC has increased tensions in eastern Europe and central Asia especially in terms of Georgia and Ukraine. As those countries edged towards NATO / EU Russia has intervened militarily, raising tensions; this situation is more about spheres of influence than physical resources and might be seen as more inevitable given Russia's poor relations with the 'west'.
- In theory, global IGOs such as the UN, WTO and others should be able to reduce tensions by making and enforcing agreements – but it could be argued that this is wishful thinking when all of the countries involved are powerful ones and there is high potential for 'stalemate' e.g. in the UN Security Council.
- There are also tensions over Arctic oil and gas, and access to and transit through the Arctic; it is an area with overlapping spheres which may be an area of future tensions – bodes like the Arctic Council could reduce tensions by promoting dialogue.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–5**	• 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**	• 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**	• 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**	• 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)

<table>
<tr><td>Question number</td><td colspan="2">Answer</td></tr>
<tr><td>7</td><td colspan="2">AO1 (5 marks)/AO2 (15 marks)
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:
• 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

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:

AO1:
• Women are, on average, less well educated and employed less often than men globally and in most countries.
• Ethnic minority groups frequently have lower incomes, and sometimes fewer rights, than the wider population.
• Other disadvantaged groups also exist, such as children, the disabled, indigenous groups and in some societies the elderly.
• Development progress can be measured by income per person, HDI and a range of other measures, including gender measures.
AO2:
• In some parts of the world women could be seen to have made the least development progress e.g. in rural Africa where literacy levels are lower than for men and women do most domestic tasks, and often most of the farming; in the Middle East and North Africa and elsewhere women have fewer legal rights than men and often make a limited formal economic contribution; in many countries this is slowly changing.
• Both women, and minority ethnic groups, often lack political representation and even the right to vote, but this is not universal with some SSA countries having high levels of women in parliament.
• There are many examples of ethnic minority groups being disadvantaged e.g. the Black population in South Africa (not a minority), aboriginal populations in Australia and Central America, and in some cases even persecuted e.g. the Rohingya in Myanmar.
• It could be argued that the rural poor in developing countries are the most disadvantaged in term of development progress, having the lowest incomes and least access to services, however women and ethnic minority groups could be seen as an even more disadvantaged sub-set.
• Urban populations, especially those living in slums, could be considered disadvantaged despite there being many opportunities in urban areas – perhaps especially in terms of health and wellbeing: urban pollution, lack of sanitation, disease risk, poverty.
• The MDGs and SDGs, in many cases, focus on least developed groups in terms of rural poor, education of girls, maternal health: in some countries significant progress was made 2000-2015 and continues to be made e.g. increasing primary school enrolment among girls.</td></tr>
<tr><td>Level</td><td>Mark</td><td>Descriptor</td></tr>
<tr><td></td><td>0</td><td>No rewardable material.</td></tr>
</table>

Level 1	**1–5**	• 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**	• 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)
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