

a-level exam questions & answers:

global systems & global governance (section a) >

mark scheme | 20-mark question #4



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Q.:	Sp. Ref.:	Information For Markers:	B'down:	Marks:
3)	3.2.1. 5 	<p>“In a globalising world, the use of the global common of Antarctica can never be sustainable.” How far do you agree with this view?</p> <p>AO1 – Knowledge and understanding of the various human threats to Antarctica and the way these are managed, including the growing levels of economic and political interdependence on a global scale</p> <p>AO2 – Application of knowledge and understanding to analyse and evaluate the extent to which sustainable use of the resources of Antarctica can be achieved in an increasingly globalising world.</p> <p>Notes for answers</p> <p>The question requires links to be made between distinct elements of Global systems and global governance, specifically aspects of globalisation, the global commons and governance of Antarctica.</p> <p>AO1</p> <ul style="list-style-type: none"> • The form and nature of globalisation, including environmental, political and economic impacts. • Fishing in the Southern Ocean has been exploited for a variety of fish, such as Antarctic rock cod (now so depleted that it cannot be fished), icefish and more recently the Patagonian toothfish. • Over-fishing and whaling are major threats to the region. Illegal, unregulated and unreported (IUU) fishing in the Southern Ocean threatens fish stocks and the seabirds and marine mammals that depend upon them. • Whaling and sealing - early exploitation was far from sustainable, with species hunted to near extinction and no steps introduced to reduce or stop the exploitation until very late on, almost too late. • Fishing limits are put in place (maximum sustainable yield) but these are exceeded and it is believed that actual amounts taken are 5 times the official figures. There is careful monitoring of Krill which is the staple of the marine ecosystem and if overfished has implications for the whole food chain. • Tourism in Antarctica has seen significant increase in recent years with approximately 30000 arrivals per year. Most visitors arrive by boat and are taken ashore in limited numbers. It is an expensive destination, very little litter/waste is left and research suggests that seals and penguins are not affected by tourists. Of the landing sites 95% are not damaged. 	AO1=10 AO2=10	20

- Marine pollution from tourist and other sources is a threat, for instance the sinking of the M/S Explorer off south Shetland Islands in 2007.
- IAATO guidelines are designed to manage impacts of tourism. However, membership of IAATO is not compulsory and so Antarctic and Southern Ocean Coalition (ASOC) suggest limiting the total number of tourists, method of arrival, no land-based development, no air travel allowed, for example.
- Pollution by tourists, fishing industry and scientist communities actually or potentially affects the Antarctic environment. Discarded plastic, fishing nets and hooks, organic waste, and sewage all contribute to environmental degradation. Other possible pollution sources include chemicals in the atmosphere, brought into the area by winds and sea currents, and damage to the upper atmosphere/ozone layer caused by CFCs or their successors.
- The role of the 'global commons' in relation to Antarctica and the role of international government organisations such as the International Whaling Commission and United Nations.
- The concept of sustainability in relation to Antarctic whereby the use of the area does not lead to irrevocable environmental damage but leaves it for future generations to experience. So too is the potential for economic sustainability, dependent on the activity and is linked to careful management.

AO2

- Evaluation of the effects of increased globalisation, with combined pressures of economic, technological, environmental, and other trends, and pressures for new initiatives to establish a regime for minerals exploitation and other forms of economic activity.
- Conversely globalisation may also result in dangers of greater levels of exploitation and environmental damage, including effects of climate change, which impinges on Antarctica.
- Analysis of the wider threats posed by climate change associated with human activity and affecting long term use and sustainability. Warming of the ice cap is leading to melting ice as well as disturbance to ecosystems. Floating icebergs present a threat to shipping and trade. If the atmosphere continues to warm, krill populations could be devastated, undermining the entire southern polar food chain, thus undermining environmental sustainability.
- Analysis of the distinction between renewable and non-renewable resources in the Antarctic region, suggesting that renewable resources can be sustainably managed whereas non-renewable cannot.
- Evaluation of the sustainability of fishing: this may be at more sustainable levels at present largely due to the break-up of the Russian fleet. Fishing is monitored in the Southern Ocean by the Convention on the Conservation of Antarctic Marine Living Resources. Fishing clearly has the potential to be sustainable – but the management of the resource is variable.

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| | | <ul style="list-style-type: none"> • Evaluation of the potential unsustainability of recent revival of whaling. While commercial whaling is prohibited in the Southern Ocean Whale Sanctuary, Japan has continued to hunt whales inside the Sanctuary for the purposes of scientific research. • Evaluation of the sustainability of tourism: the need for caution due to the fragility of the Antarctic environment. The effectiveness of IAATO and ASOC guidelines are likely to feature here. These ASOC measures are more stringent – but may encourage more sustainable use of the area. Impact studies by Scott Polar Research Institute show that tourism largely positive, with excellent educational provision on board ships that are visiting. Tourism perhaps offers the best hope for sustainability of the more recent developments, although in a globalising world tourist pressures are likely to increase. • Evaluation of balance between management and protection – allowing the area to be seen, visited, developed to a degree, but simultaneously protected from damage. The Antarctic Treaty and its role is likely to be investigated and its significance in offering protection from certain types of development, including mineral exploration. Credit the view that in a globalising world, word is spreading (through eg Greenpeace - an international organisation) just how fragile and important Antarctica is and therefore conservation is occurring. • Analysis of the potential impacts of oceanic acidification (from extra dissolved carbon dioxide) on environmental sustainability, already leading to the loss of some marine snails thought to have a significant part to play in the oceanic carbon cycle. Breeding populations and ranges of some penguin species could potentially be altered irrevocably. • Analysis of the effectiveness of international scale protection of Antarctica through frameworks such as the United Nations Environment Programme, and resource management such as the IWC Whaling Moratorium, and the extent to which they help to achieve sustainability. With increasing globalisation the issue of the protection of Antarctica becomes more pressing. • Overall evaluation of the question, giving consideration to the various uses of and threats to the Antarctic region in a globalising world, the effectiveness of international agencies, reflecting emerging global governance in resisting the threats and attempts to achieve environmental and/or economic sustainability. • Conclusion may recognise that whilst the main focus to date has been on relatively successful protection, conservation and scientific research, current controversies involving illegal, unregulated and unreported fishing, the Law of the Sea, tourism and whaling are likely to provoke serious challenges for the governance and sustainability of Antarctica. | | |
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Marking Level Criteria:

This grid is used by teachers and examiners to decide first your working level, then narrow down to a mark out of 20 for all long answer questions, and the kinds of things they are looking to see in each of these answers.

Level/Mark Range	Criteria/Descriptor
TOP LEVEL 4 (16-20 marks – 80+% - typically an A* answer)	<ul style="list-style-type: none"> Detailed evaluative conclusion that is rational and firmly based on knowledge and understanding which is applied to the context of the question. Interpretations are comprehensive, sound and coherent (AO2). Detailed, coherent and relevant analysis and evaluation in the application of knowledge and understanding throughout (AO2). Full evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts (AO2). Detailed, highly relevant and appropriate knowledge and understanding of place(s) and environments used throughout (AO1). Full and accurate knowledge and understanding of key concepts, processes and interactions and change throughout (AO1).
HIGH LEVEL 3 (11-15 marks – 55-75% - B to A grade answer)	<ul style="list-style-type: none"> Clear evaluative conclusion that is based on knowledge and understanding which is applied to the context of the question. Interpretations are generally clear and support the response in most aspects (AO2). Generally clear, coherent and relevant analysis and evaluation in the application of knowledge and understanding (AO2). Generally clear evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts (AO2). Generally clear and relevant knowledge and understanding of place(s) and environments (AO1). Generally clear and accurate knowledge and understanding of key concepts, processes and interactions and change (AO1)
LOWER LEVEL 2 (6-10 marks – 30-50% - D-C grade answer)	<ul style="list-style-type: none"> Some sense of an evaluative conclusion partially based upon knowledge and understanding which is applied to the context of the question (AO2). Interpretations are partial but do support the response in places. Some partially relevant analysis and evaluation in the application of knowledge and understanding (AO2). Some evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts (AO2). Some relevant knowledge and understanding of place(s) and environments which is partially relevant (AO1). Some knowledge and understanding of key concepts, processes and interactions and change. There may be a few inaccuracies (AO1).
LOW LEVEL 1 (1-5 marks) - <25% - E or below answer	<ul style="list-style-type: none"> Very limited and/or unsupported evaluative conclusion that is loosely based upon knowledge and understanding which is applied to the context of the question (AO2). Interpretation is basic. Very limited analysis and evaluation in the application of knowledge and understanding. This lacks clarity and coherence (AO2). Very limited and rarely logical evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts (AO2). Very limited relevant knowledge and understanding of place(s) and environments (AO1). Isolated knowledge and understanding of key concepts, processes and interactions and change. There may be a number of inaccuracies (AO1)
LEVEL 0 (0 Marks)	<ul style="list-style-type: none"> Nothing worthy of credit (something has gone ridiculously wrong if you're here!)