GradeMax



Mark Scheme (Results)

Summer 2018

Pearson Edexcel International A Level in Geography (WGE03) Paper 01

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at www.edexcel.com or www.btec.co.uk. Alternatively, you can get in touch with us using the details on our contact us page at www.edexcel.com/contactus.

Pearson: helping people progress, everywhere

Pearson aspires to be the world's leading learning company. Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk

Summer 2018
Publications Code WGE03_01_1806_MS
All the material in this publication is copyright
© Pearson Education Ltd 2018

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.

How to award marks when level descriptions are used

1. Finding the right level

The first stage is to decide into which level the answer should be placed in. To do this, use a 'best-fit' approach, deciding which level most closely describes the quality of the answer. Answers can display characteristics from more than one level, and where this happens markers must use the guidance below and their professional judgement to decide which level is most appropriate.

For example, one stronger passage at L4 would not by itself merit a L4 mark, but it might be evidence to support a high L3 mark, unless there are substantial weaknesses in other areas. Similarly, an answer that fits best in L3 but which has some characteristics of L2 might be placed at the bottom of L3. An answer displaying some characteristics of L3 and some of L1 might be placed in L2.

2. Finding a mark within a level

After a level has been decided on, the next stage is to decide on the mark within the level. The instructions below tell you how to reward responses within a level. However, where a level has specific guidance about how to place an answer within a level, always follow that guidance.

Levels containing 2 marks only

Start with the presumption that the work will be at the top of the level. Move down to the lower mark if the work only just meets the requirements of the level.

Levels containing 3 or more marks

Markers should be prepared to use the full range of marks available in a level and not restrict marks to the middle. Markers should start at the middle of the level (or the upper-middle mark if there is an even number of marks) and then move the mark up or down to find the best mark. To do this, they should take into account how far the answer meets the requirements of the level:

- If it meets the requirements *fully*, markers should be prepared to award full marks within the level. The top mark in the level is used for answers that are as good as can realistically be expected within that level
- If it only *barely* meets the requirements of the level, markers should consider awarding marks at the bottom of the level. The bottom mark in the level is used for answers that are the weakest that can be expected within that level
- The middle marks of the level are used for answers that have a *reasonable* match to the descriptor. This might represent a balance between some characteristics of the level that are fully met and others that are only barely met.

<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:
• Cyclone impacts can be related to the Saffir-Simpson scale, which is determined by wind strength and storm-surge height – higher intensities lead to larger impacts usually.
• Landfall and tracks are important in explaining impacts in terms of a ‘direct hit’ and the time a cyclone spends over an area.
• Broadly, vulnerability and capacity to cope can be related to level of development.
• There are large differences in the data shown in Figure 1, which differ by order of magnitude in terms of deaths and economic losses especially.
AO2:
• Intensity could help explain death toll, but the largest death toll (Nargis = 138,000) was SS4 whereas Bopha was SS5 with a much lower death toll (1901); the lowest intensity storm had the lowest deaths (Sandy).
• Other physical factors could include the time the storm stayed over a particular area, the intensity and duration of rainfall which adds to flooding and therefore impacts, and the strength of local winds.
• The physical nature of the coastline determines how far a storm surge moves inland; it might be argued that the area hit by Nargis was especially low-lying and therefore very extensive areas were flooded compared to Sandy; credit the idea that global warming might be making storms worse.
• Human factors include preparation, warning and prediction. In the Philippines very frequent cyclones might mean the population is better prepared and has a higher capacity to cope; Nargis could be argued as rare for Myanmar and therefore the population was unprepared.
• Widely disseminated warnings, which were timely and accurate could explain lower deaths especially if evacuation was carried out – likely in the case of the USA and Sandy (TV / radio warnings, satellites and planes tracking the storms).
• Economic losses are partly a result of what people had to lose, i.e. high value coastal property in the USA and insured loses, versus limited insurance and property in the developing countries; the Philippines might be seen as being better prepared and so people have adapted. Population density is a factor, as 8 million were affected by Sandy (only 117 deaths) versus only 1.5 million for Nargis.</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 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)</td></tr>
<tr><td>Level 2</td><td>5-7</td><td>• Demonstrates geographical knowledge and understanding, which is mostly</td></tr>
</table>

		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: • Forecasting and prediction using weather models is a short term strategy, used in places like the USA, Australia and the Sahel (FEWSnet), although its accuracy varies. • Long-term strategies focus on adapting to water shortages such as increased water storage and smarter water use to reduce evaporation, e.g. drip irrigation and many type of dams, water transfers and desalination • Farming strategies focus on the choice of crop and cultivation method and include technologies such as GM. • Aid and emergency are sometimes needed to respond in areas where food and water supply have collapsed – but this is short-term only. • A distinction should be drawn between areas which are arid and those which suffer from drought, i.e. a short-term meteorological hazard. AO2: • A difference may be drawn based on where drought occurs because in developing countries long-term water management is much rarer than in the developed world, e.g. USA and Australia where large scale water management is more common – emergency short-term strategies are rarely needed; Australia has installed desalination in response to drought. • In many cases long-term water management has proved costly and not always effective as it can lead to overuse and salinisation of cropland, and climate change may reduce supply, e.g. the Murray-Darling and Colorado rivers reducing effectiveness over time. • Drip-irrigation and other smart irrigation methods have a lot of potential to reduce over all water use and cope with drought spells, but this tends to be costly and is therefore hard to apply to developing areas such as the Sahel. • However, there are many intermediate technology solutions (zeer pots, check dams, contour-bunding) that can conserve water and food in drought prone areas – their

	application is patchy because they are often NGO funded. • Governance might be raised as an issue as many of the world's drought prone, rainfed agriculture areas are in the Sahel and Central Asia which are poorly governed and subject to conflict and disruption – this could be seen as a barrier to progress and the implementation of successful responses. • In some cases emergency aid is required in drought stricken areas, although it is often late in coming despite widespread warning and is likely to be only a temporary solution to save lives in the short term – longer term adaptation is required but this means a long-term commitment and funding. • Stronger answers should address the concept of success, by considering how far responses have improved water availability.

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)

<table>
<tr><td>Question number</td><td colspan="2">Answer</td></tr>
<tr><td>2 (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:
• Conservation areas / protected areas are used to protect biodiversity and ecosystems and they vary in size and degree of protection, e.g. strongly protected NPs versus ‘paper parks’.
• Conservation areas protect ecosystem services (regulating, provisioning, cultural and supporting).
• Conservation and protection can be costly, but also brings economic benefits such as tourism as well as wider benefits
• The environmental Kuznets curve is a model of the relationship between development and attitudes to the environment, including conservation.
AO2:
• Broadly, developed countries protect a greater percentage area, e.g. Germany 37%, NZ 33% and Japan 27% - this could be related to availability of funds for conservation.
• The Kuznets curve suggests attitudes to conservation change with development: low income countries may not be degrading their environment so there is less reason to protect; middle income / industrialising countries (Indonesia = 14%) may have other priorities, i.e. exploiting resources, whereas developed countries are trying to right past wrongs.
• Attitudes to conservation are likely to be more positive in places where peoples basic needs are already met and people have time / money to value and enjoy ecosystems and biodiversity; there is an argument that in places where people depend on the land for food they protect it out of necessity, i.e. low income countries.
• Country size / population density could play a role as Canada’s low percentage which are uninhabited and / or are deemed to be under no threat or have little conservation value. Equally in crowded places such as India few areas might be available to practically protect due to urban and agriculture pressures.
• The value of tourism could be seen as important in terms of conservation – Kenya, NZ and especially St Lucia could be seen to be protecting because this generates income from their unique ecosystems – so the reason is a practical one.
• Brazil’s high percentage, and possibly Kenya’s 13%, might be seen as protecting globally important species and ecosystems – possibly as a result of international pressures; on the other hand some areas could be ‘paper parks’ with little in the way of monitoring or policing.
NB Answers that only consider global warming are likely to be self-penalising, and unlikely to score beyond the top of L2, because of a lack of ‘extent’.</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 knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1)</td></tr>
</table>

		• 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><td>Question number</td><td colspan="2">Answer</td></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:
• Low income developing countries include most of sub-Saharan Africa, South Asia and parts of Latin America.
• Global Warming implies an increase in average surface temperatures and likely changes to rainfall patterns – although the extent of this is unknown and there is wide range of projections.
• Global warming can be seen as a context threat, as it has the potential to affect ecosystems, meteorological hazards, water supply and health / disease
• Wellbeing relates to the idea of a health, food supply and safety – it could be interpreted in a number of ways.
AO2:
• One approach is to argue that GW is a threat, but not today. Other threats such as tropical cyclones or major tectonic hazards are perhaps more likely to directly impact on people today – although GW may become an increasing threat in the future.
• In some places the threat of running out of key resources, perhaps linked to growing populations, might be seen as more significant and immediate – this includes food and water (a Malthusian view) and is an issue in rural areas but also in some megacities in terms of poverty.
• It also depends on location; some places such as the Sahel or island states like the Maldives have very direct threats such as sea level rise and the possibility of reduced rainfall which will affect people’s ability to grow crops, get water and therefore survive – in some locations these threats are much more pressing than others.
• GW has the potential to degrade ecosystem services, especially the hydrological cycle which many people in developing countries depend on for direct water supply, due to the lack of managed water supply; goods that are obtained from ecosystems could also be affected.
• GW could affect some hazards, such as making tropical cyclones more frequent / more intense – which would directly affect many who live in cyclone belts.
NB: credit low-income regions / parts of emerging countries e.g. specific reference to slums in urban areas, low-income rural subsistence parts of India and China and others. Credit the argument and assessment rather than being overly picky about ‘low-income countries’.</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 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</td></tr>
</table>

		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
4	**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: • Radical technologies include hydrogen fuel cell technology and electric vehicles (EVs) as well as other technologies such as carbon capture and storage (CCS) • Conservation of energy means using less energy to do the same work (energy efficiency) and includes LED lights, home appliances, more efficient engines and power generation. • Existing technologies such as nuclear and renewables are relevant, and in some cases can be radical, e.g. solar thermal • Future energy needs relates to demand, and this is expected to increase by 40-60% by 2050, globally making the concept of peak oil / gas relevant. AO2: • Genuinely radical technologies are a currently an unknown quantity: EVs are getting more common but still require electricity much of which comes from fossil fuels so while they reduce local pollution, they don't necessarily reduce energy consumption. • Hydrogen fuel cells / power is another alterative to fossil fuels but as yet it is not a large scale technology, is very costly, has safety issues and there is no cheap available source of hydrogen. • CCS could allow fossil fuels, e.g. cheap coal to continue to be burned without releasing pollutants into the atmosphere but is largely unproven and potentially very expensive – it also fails to address the issues of declining supplies of fossil fuels, i.e. peak oil / gas. • Conservation might be argued as being one way forward, as reducing wasted energy will make existing supplies last longer; there is a lot that can be done to make engines, lighting and home appliances much more energy efficient although there is a cost which may be too high for developing regions. • Many might argue that it is actually existing renewable that have the largest role to play as fossil fuels decline in terms of supply, because they are proven technologies that could be used much more widely, i.e. wind, solar and HEP; some might consider nuclear has a future as a low-carbon, non-fossil fuel source although it has a number of costs and benefits. • The rise of fracking and biofuels in USA (and in UK and other countries in the future) plus nuclear expansion in some places (UK, China) could delay investment into other renewable such as wind, solar, tidal etc. NB Answers that only cover radical energy technologies OR energy conservation will be self-penalising.

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><th>Question number</th><th colspan="2">Answer</th></tr>
<tr><td>5</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:
• Desalination uses seawater to make freshwater, and is common in many countries in the Middle East as well as others; it is energy intensive and economically costly.
• Water conservation includes a wide-range of strategies to make water go further.
• Grey water recycling, drip irrigation and water harvesting are examples – these can use high or low tech approaches.
• Water demand is set to increase, perhaps by 40-50% globally by 2050 with some areas, e.g. India and parts of Africa set to experience even faster increases in demand.
AO2:
• Many countries in the Middle East, and increasingly elsewhere, already rely on desalinisation for much or the majority of their water supply so in some ways it is already a ‘solution’ – the question is how widespread could it be (land-locked countries?) given the cost and need for an energy source; it also has some environmental issues not least carbon emissions from fossil fuel as the energy source.
• In many parts of the world declining river flows (linked to over-abstraction), falling water tables and water pollution (rivers, groundwater salinisation) mean there is some urgency in terms of a need for alternate supply, or making better / more sustainable use of existing resources – options are often very limited.
• Water conservation has high potential in many cases; Singapore is an example of where public education, water pricing and technology has been used to reduce over-all water use; water pricing is used in many places but risks making water too expensive for those that need it most.
• In Singapore and other places, rainwater harvesting is used to capture and then use rainwater that would otherwise be lost to the hydrological cycle – this can be done in hi-tech ways or low-tech ones such as Pumpkin Tanks, so might be argued to have widespread application at a range of levels of development.
• Some will argue that water supply needs to be increased using other methods, because the increases in demand are so large; this is why mega-dams and water transfers are being used in many parts of the world to increase storage capacity and move water from areas of surplus to areas of deficit; these schemes are costly and therefore not able to be used everywhere, they also have many social and environmental drawbacks.
NB Answers that only cover desalination OR water conservation will be self-penalising.
</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>1–5</td><td>• Demonstrates isolated elements of geographical knowledge and</td></tr>
</table>

		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)

Question number	Answer	Mark
6(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. • Only the most powerful country, the USA, is a member of all 3 organisations (1) which suggests IGOs are one aspect of superpower influence (1). • All three countries are WTO members, which could be seen to indicate that trade is very important (1) because it generates the wealth superpowers need to act in other spheres, e.g. militarily (1). • Only the USA has more than 10% of the votes at the IMF meaning one country has significant influence (1) which can be related to the dominance of the USA's 'western' economics (1). • Russia and the USA are UNSC permanent members meaning they make decisions on global security issues (1) which reflects their geopolitical influence / military strength – key features of a superpower (1).	**(5)**

<table>
<tr><th>Question number</th><th colspan="2">Answer</th></tr>
<tr><td>6(b)</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:
• Emerging superpowers (China) are on an upward trajectory in terms of global influence and power, but not yet at the level of ‘superpower’ e.g. the USA.
• Power and influence can be judged in terms of economic, military, cultural, demographic and geopolitical influence.
• A distinction is often made between hard and soft power mechanisms.
• Comparisons with other emerging / superpower countries can reveal the strengths and weaknesses of China.
AO2:
• Economically, China is a the world’s second largest economy and a major player in global manufacturing which has generated wealth and rising incomes; it is a key global leader is some sectors such as renewable energy – it tends to lack global brands but does have rising personal wealth although a fraction of the USA on a per capita basis; China’s economic power might be judged as its most significant source of power.
• Politically it has a number of weaknesses in terms of a lack of internal democracy and openness which means it is viewed with suspicion by traditional western powers, plus a lack of willingness to act globally unless its direct interests are threatened – it could be argued that not getting involved is strength, allowing China to focus on its own development.
• Militarily it is some way behind the USA; it has a large standing army and air force, but lacks the global naval military reach of the USA, but is developing this – China is a nuclear armed power which gives it a seat at the ‘top table’.
• Culturally China has much less global influence, even than countries such as India, although the Beijing Olympics in 2008 did give China a global stage; its lack of global brands means its cultural reach is relatively small.
• Some might argue the sheer scale of China economically and demographically means that its influence is large and almost bound to grow over time, assuming its economic strength continues to increase.
• A number of wider weaknesses could be considered including a rapidly ageing population, major environmental issues and the possibility of regional conflict with its neighbours could all derail its progress as an emerging power.</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 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)</td></tr>
</table>

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
7(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. • Poverty could be seen as the number 1 goal because of how widespread it still is globally (1) with 100s of millions still living on less than $1.25 per day (1). • Poverty might be seen as strongly influencing the other 2 goals shown (1), e.g. poverty causes hunger, so alleviating poverty should also reduce hunger (1). • Health and wellbeing and / or hunger could be linked to the ability to earn an income (1) as a lack of either of these reduces capacity to work (1). • The top 3 were put first because they might actually be achievable (1) and did improve under the MDGs so have been carried forward (1) • More universally agreed than some (1) which are lower down (and not shown here) i.e. gender equality less important to come cultures. (1)	**(5)**

<table>
<tr><th>Question number</th><th colspan="2">Answer</th></tr>
<tr><td>7(b)</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:
• Aid is any assistance given from one country to another; it is often defined as Official Development Assistance (ODA) and can be in the form of money, loans, or technical help; debt cancellation and economic restructuring might be considered forms of aid (SAPs, HIPC).
• Aid can be bilateral or multilateral; in the latter case it is provided through organisations like the World Bank or EU; it is also provided by NGOs.
• Aid is often, but not always, focused on development, i.e. ensuring progress in terms of basic needs, economic and social development.
• Aid can be long terms development aid or short-term emergency assistance.
• There are other ways of reducing the development gap, such as trade and FDI.
AO2:
• Aid is essentially a transfer of resources from donor to recipient and on the face of it should even out global inequalities; critics argue that the net transfer of resources in recent decades has actually been toward the developed world.
• In many cases aid, both bilateral and multilateral, is used to fund economic development schemes of all sorts – water supply, energy, transport, etc. which can have a positive impact on modernisation and development – but often corruption and mismanagement delay projects or undermine their ultimate success.
• Bilateral aid in particular is criticised for being tied, i.e. dependent on the recipient using the aid as directed by the donor thus reducing its flexibility and value; this is also a criticism levelled at SAPs /HIPC in that it allows the aid givers undue influence to force their agenda on the recipient.
• NGO aid is often seen as more positive due to its smaller scale, greater transparency and focus on basic needs and individual communities – however it is patchy, may not reach many, dependent on NGO funding and may not lead to real development progress beyond meeting basic needs.
• Many could argue that trade and FDI are better ways to make countries progress economically, with benefits of a larger more modern economy eventually trickling down to many people – as in the case of China; again, critics could argue this approach leads to greater wealth but also greater inequality.</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 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)</td></tr>
</table>

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)