



Pearson
Edexcel

Mark Scheme (Results)

January 2023

Pearson Edexcel International Advanced Level
In Geography (WGE01)
Unit 1 Global Challenges

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General Marking Guidance

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

| Question Number | Answer - Define the term 'natural disaster' (1.3.3.2) | Mark |
|-----------------|--|------------|
| 1 a (i) | <p style="text-align: center;">AO1 (1 mark)</p> <ul style="list-style-type: none"> • The realisation of a hazard • When a hazard has a significant impact on people i.e. over 10 people affected | (1) |

| Question Number | Answer - Describe the trends in global economic losses from extreme weather disasters between 1972 and 2018. (1.3.3.2) | Mark |
|-----------------|---|------------|
| 1 a (ii) | <p style="text-align: center;">AO2 (2 marks)</p> <p>Award 1 mark for each description of the trend in global economic losses. Maximum 2 marks.</p> <ul style="list-style-type: none"> • Overall global economic losses have increased (1) • Economic losses were highest in 2007 • Global economic losses remained low and steady from 1972 to 1988 (1) • Economic losses fluctuated between 1988 and 2002 (1) • Losses rose quickly to peak in 2004 (1) • Losses remained fluctuating between 2006 and 2016 but have declined since then (1) <p>Accept other correct explanations.</p> | (2) |

| Question Number | Answer - Suggest one reason for the trend in global economic losses since 2000 (1.3.3.1) | Mark |
|------------------|---|------------|
| 1 a (iii) | <p style="text-align: center;">AO1 (2 mark)</p> <p>Award 1 mark for identifying a reason for the increase in global economic losses and a further expansion mark up to a maximum of 2 marks.</p> <ul style="list-style-type: none"> • The number of extreme weather disasters is increasing (1) meaning economic losses increase as more areas are exposed to them (1) • The intensity of weather disasters has increased (1) meaning greater economic losses as a result as increased magnitude (1) • Increased population growth in at risk areas (1) means greater amounts of buildings/infrastructure is damaged (1) • Increase affluence of the population (1) so claims for property and possessions increases (1). <p>NB: Candidates should link the reason to the impact on global economic losses for the 2nd mark.</p> <p>Accept other correct explanations.</p> | (2) |

| Question Number | Answer - Explain how the disaster risk equation helps to explain the impacts of earthquakes. (1.3.1.3) | Mark |
|-----------------|---|------------|
| 1 b | <p style="text-align: center;">AO1 (4 marks)</p> <p>Award 1 mark for a basic explanation and a further mark for a development of the explanation.</p> <ul style="list-style-type: none"> • Risk can be calculated using the following equation: Risk = probability of hazard x degree of vulnerability (1) • The risk of a disaster increases if the magnitude of a hazard increases (1) • If there is high vulnerability due to poverty/lack of preparedness/lack of awareness of potential hazards) the risk increases. (1) • The risk of a disaster can be reduced if communities have a high capacity to cope and a high resilience (1) e.g. through the use of hazard-resistant design or land use planning. (1) • Candidates may use contrasting examples of earthquake events/locations to discuss how the disaster risk equation may be applied. <p>Accept other correct explanations.</p> | (4) |

| Question number | Answer - Explain how monitoring and prediction technology can reduce the impacts of some tectonic disasters (1.3.3.3) | Mark |
|-----------------|--|------------|
| 1 (c) | <p style="text-align: center;">AO1 (6 marks) Marking instructions</p> <p>Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance</p> <p>The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <ul style="list-style-type: none"> • Seismic monitoring through the use of seismographs can be used to detect seismic waves. This information can be used to predict how many earthquakes occur in areas in a year and the likelihood of earthquakes in the future and their magnitude. • Planners can use this to reinforce infrastructure and put evacuation procedures in place as needed. However, earthquakes are very unpredictable so this has limited success. • Tiltmeters and strain meters can record 'bulging' as magma rises and seismometers record minor earthquakes indicating magma movement. Gas spectrometers analyse gas emissions which can suggest an increased likelihood of eruptions. • Tsunamis can be monitored by seismometers which can tell if an underwater earthquake has taken place and ocean monitoring equipment can detect a tsunami in open sea. This information can be relied to coastal areas which can be evacuated. <p>Accept other correct explanations.</p> | (6) |

| Level | Mark | Descriptor |
|---------|------|--|
| | 0 | No rewardable material. |
| Level 1 | 1-2 | <ul style="list-style-type: none"> • Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1) • Understanding addresses a narrow range of geographical ideas which lack detail. (AO1) |
| Level 2 | 3-4 | <ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Understanding addresses a range of geographical ideas which are not fully detailed and/or developed. (AO1) |
| Level 3 | 5-6 | <ul style="list-style-type: none"> • Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Understanding addresses a broad range of geographical ideas which are detailed and fully developed. (AO1) |

| Question Number | Answer- Which continent is predicted to have the greatest number of people affected by sea level rise by 2100? (1.3.5.3) | Mark |
|-----------------|--|------------|
| 2 a (i) | AO2 (1 mark) B - Asia | (1) |

| Question Number | Answer - Describe the distribution of people in South America predicted to be affected by rising sea level by 2100 (1.3.5.3) | Mark |
|-----------------|--|------------|
| 2 a (ii) | AO2 (2 marks) Award 1 mark for correct description of the distribution and a further extension mark showing use of the resource <ul style="list-style-type: none"> • The biggest number of people affected in South America is in Brazil (1) • More people are affected in the northern half of South America (1) • The majority of the southern part of South America is the least affected (1) with less than 100,000 people affected in countries such as Chile and Argentina (1) • The people most affected are in countries with long coastlines (1) for example Brazil (1) • Landlocked countries such as Bolivia and Paraguay have no data (1) as they have no coastline to be flooded (1) • Smaller nations on the whole have less people impacted by sea level rise (1) the exception being Ecuador which has a higher number affected than surrounding larger countries (1) <p>Credit other valid descriptions.</p> | (2) |

| Question Number | Answer - Suggest one reason why some coastlines are especially at risk from sea level rise (1.3.5.3) | Mark |
|------------------|--|------------|
| 2 a (iii) | <p style="text-align: center;">AO1 (2 marks)</p> <p>Award 1 mark for correct suggestion/reason for why some places are facing greater risk from sea level rise and a further extension mark up to a total of 2 marks.</p> <ul style="list-style-type: none"> • Some countries have large amounts of land that sit at or below sea level e.g. Bangladesh (1) meaning any rise in sea level will result in these areas being inundated/flooded (1) • Countries which have a large percentage of their population living along the coastline are at greater risk (1) this is because of the presence of large cities such as Shanghai and Hong Kong (1) • Countries have experienced high levels of population growth e.g. China and India (1) therefore the population has moved into high risk low-lying coastal areas (1). • Some countries are experiencing subsidence of land (1) meaning the sea-level rises relative to the shore/ leads to high sea-levels and increased flood risk (1) • Developing nations may be unable to afford coastal defences (1) meaning any sea level rise will not be halted (1). <p>Accept other correct explanations.</p> | (2) |

| Question Number | Answer - Explain two reasons why future global warming projections are uncertain (1.3.5.2) | Mark |
|-----------------|--|------------|
| 2 (b) | <p style="text-align: center;">AO1 (4 marks)</p> <p>Award 1 mark for a basic reason why future global warming projections are uncertain and a further mark for a development of this reason</p> <ul style="list-style-type: none"> • Uncertainty regarding the future level of greenhouse emissions (1) countries may decide to take action to reduce this (1) • The role of feedback mechanisms such as the release of carbon from peatlands/thawing permafrost (1) it is unclear what volume of carbon will be released (1) • The rate of population growth is uncertain (1) as countries may choose to impose population restrictions/encourage population growth (1) • The role of alternative energy sources (1) and whether these will replace fossil fuels completely (1) • The possible passing of tipping points (1) with forest dieback/alterations to the thermohaline circulation (1) <p>Accept other correct explanations.</p> | (4) |

| Question number | Answer - Explain why some government actions to mitigate carbon emissions have been more successful than others (1.3.6.1) | Mark |
|-----------------|---|------------|
| 2 (c) | <p style="text-align: center;">AO1 (6 marks)</p> <p style="text-align: center;">Marking instructions</p> <p>Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance</p> <p>The indicative content below is not prescriptive, and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <ul style="list-style-type: none"> • Carbon taxation is deemed the most successful way of mitigating carbon emissions. Pricing carbon makes carbon-intensive production and consumption more expensive and creates an incentive to switch to lower carbon alternatives. However, it needs to be set at \$40-\$80/tCO₂ to meet the Paris Agreement. • Renewable switching – the relationship between the big energy producers and the government dictates the success of switching away from fossil fuels to renewable alternatives. Renewables provide intermittent electricity, whilst fossil fuels provide continuous power which countries require. • Afforestation – By planting new trees these can remove CO₂ from the atmosphere, with newly planted or regenerating forests absorbing carbon for 20-50 years. However the costs of protecting young trees from fire, drought and pests can make this unviable. • Carbon Capture storage aims to capture and store carbon dioxide before it is released into the atmosphere. However, it is very expensive due to high energy costs but has the potential to decrease CO₂ emissions from a coal burning power plant by 90%. • Depends upon the attitude of countries towards the threat of global warming, with some countries choosing to prioritise economic development. • Global warming requires global cooperation and global agreements such as Kyoto 1997/Paris 2016/COP26 have had varied success. <p>Accept any other valid responses.</p> | (6) |

| Level | Mark | Descriptor |
|---------|------|--|
| | 0 | No rewardable material. |
| Level 1 | 1-2 | <ul style="list-style-type: none"> • Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1) • Understanding addresses a narrow range of geographical ideas which lack detail. (AO1) |
| Level 2 | 3-4 | <ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Understanding addresses a range of geographical ideas which are not fully detailed and/or developed. (AO1) |
| Level 3 | 5-6 | <ul style="list-style-type: none"> • Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Understanding addresses a broad range of geographical ideas which are detailed and fully developed. (AO1) |

| Question Number | Answer - Identify the increase in Microsoft's brand value from 2010 to 2020. (1.4.3.1) | Mark |
|-----------------|---|------------|
| 3 a (i) | <p style="text-align: center;">AO2 (1 mark)</p> <ul style="list-style-type: none"> • D – 105.2 | (1) |

| Question Number | Answer - Suggest a reason for one change in rankings shown in Figure 3. (1.4.3.1) | Mark |
|-----------------|---|------------|
| 3 a (ii) | <p style="text-align: center;">AO1 (1 mark) / A02 (1 mark)</p> <p>Award 1 mark for correct suggestion/reason a change in rankings and a further extension mark up to a total of 2 marks.</p> <ul style="list-style-type: none"> • Decline in brand value for Coca Cola as a result of negative press (1) due to their environmental impact in low income countries (1) • Decline in brand value for Coca Cola due to increased awareness of the un-healthiness of fizzy drinks (1) driven by countries who have put a sugar tax/banned it from schools (1) • Increase in brand value for Amazon with the rise in online shopping (1) as people can select and have products shipped same day (1) • Increase in brand value for Samsung who have become a major competitor for Apple (1) and have exploited the Asian market (1) | (2) |

| Question Number | Answer - Suggest one way in which global consumers have benefitted from the growth of global brands (1.4.3.1) | Mark |
|------------------|--|------------|
| 3 a (iii) | <p style="text-align: center;">AO1 (2 mark)</p> <p>Award 1 mark for a correct suggestion/reason as to why global consumers have benefitted and a further extension mark up to a total of 2 marks.</p> <ul style="list-style-type: none"> • Products have become cheaper (1) due to outsourcing of production to the Asian markets (1) • Consumers can access a greater variety of products (1) as globalisation has allowed access to different countries/cultures • Competition between global brands can drive down prices (1) meaning consumers benefit from lower priced goods (1) • Increased variety of global brands (1) making high quality products such as iphones (1) <p>Accept other correct explanations.</p> | (2) |

| Question Number | Answer - Explain why some developing countries are poorly connected to the wider global economy. (1.4.3.2) | Mark |
|-----------------|--|------------|
| 3 b | <p style="text-align: center;">AO1 (4 marks)</p> <p>Award 1 mark for a basic explanation and a further mark for a development of the explanation.</p> <ul style="list-style-type: none"> • Some developing countries are physically isolated e.g. they are landlocked (1). The lack of a coastline means that they are unable to benefit from shipping of mass goods via containers (1) • Some landlocked countries are reliant on good relations with neighbouring countries to import and export goods (1) which drives up the cost of transport and therefore the goods (1). • Some developing countries have political restrictions reducing their connections to the wider global economy (1). For example, N. Korea's economy is dominated by state-owned industry/ limited willingness to allow foreign direct investment (1) • Some developing countries are concerned that in connecting to the global economy their culture will become diluted/changed (1). In Iran the importing of foreign toys is not illegal but discouraged in order to protect Iranian culture (1). <p>Accept other correct explanations.</p> | (4) |

| Question number | Answer - Explain why developments in transport in both the 19 th and 20 th Centuries contributed to a 'shrinking world' (1.4.1.2) | Mark |
|-----------------|--|------------|
| 3 (c) | <p style="text-align: center;">AO1 (6 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance The indicative content below is not prescriptive, and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <ul style="list-style-type: none"> • The 'shrinking world' concept is the idea that the world feels smaller because places are closer in terms of travel time and knowledge of distance places is widespread so they feel less 'exotic'. • Transport has been essential in allowing TNCs to establish a spatial division of labour on a global scale. • During the 19th Century transport developments have allowed the value of trade to increase. • Steam trains (1802) replaced horse-drawn and canal transport. Britain became the leading world power in the 1800s using steam technology with steam trains moving goods and armies along trade routes in Asia and Africa. • Steam ships replaced sailing ships and increased speed and cargo capacity (1840s) • During the 20th Century the arrival of the intercontinental Boeing 747 (Jumbo Jet) had made international air travel less expensive, resulting in increased global flows of tourists. • Improvements in aircraft have meant that people are able to travel greater distances at a reduced amount of time and at a lower cost. Aircrafts are also safer and therefore more people are willing to travel. • Containerisation has reduced shipping costs and has been key in allowing TNCs to outsource their centre of production from Europe towards Asia, this is particularly evident in China. • Improvements in containerisation have led to greater trade in cargo throughout the oceans. Boats can now carry more cargo therefore the cost of transportation is less therefore companies will deliver further. <p>Candidates should cover both the 19th and 20th Century transport developments either directly or implied to access level 3</p> <p>Accept other correct explanations.</p> | (6) |

| Level | Mark | Descriptor |
|---------|------|--|
| | 0 | No rewardable material. |
| Level 1 | 1-2 | <ul style="list-style-type: none"> • Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1) • Understanding addresses a narrow range of geographical ideas which lack detail. (AO1) |
| Level 2 | 3-4 | <ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Understanding addresses a range of geographical ideas which are not fully detailed and/or developed. (AO1) |
| Level 3 | 5-6 | <ul style="list-style-type: none"> • Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Understanding addresses a broad range of geographical ideas which are detailed and fully developed. (AO1) |

| Question Number | Answer - Identify the correlation shown in the scattergraph (1.4.4.3) | Mark |
|-----------------|---|------------|
| 4 a (i) | AO2 (1 mark) B: Weak positive correlation | (1) |

| Question Number | Answer - Suggest how rising population and affluence could lead to water shortages (1.4.4.3) | Mark |
|-----------------|---|------------|
| 4 a (ii) | <p>AO1 (4 mark)</p> <p>Award 1 mark for a basic explanation and a further mark for a development of the explanation.</p> <p>Rising population</p> <ul style="list-style-type: none"> • Increased population leads to more use water for hygiene/cooking/cleaning (1) with population increasing there is only a fixed amount of freshwater available /population exceeds the supply (1). • As population increases the demand for goods/products increase (1) these are manufactured using energy and water intensive methods (1) • Population growth tends to be highest in developing countries (1) these regions often face water shortage due to the physical conditions (1) <p>Rising affluence</p> <ul style="list-style-type: none"> • Rising affluence leads to increased use of modern appliances such as dishwashers/washing machines (1) these are water intense (1) • Rising affluence leads to increased domestic demand due to changing diets e.g. meat (1) this has a high water demand e.g. 550 litres to produce 1kg of beef (1) <p>Mark as 2+2</p> <p>Accept other correct descriptions.</p> | (4) |

| Question Number | Answer - Explain how the resource demands of cities affect the rural areas surrounding them (1.4.6.1) | Mark |
|-----------------|--|------------|
| 4 b | <p style="text-align: center;">AO1 (4 marks)</p> <p>Award 1 mark for a basic explanation and a further mark for a development of the explanation.</p> <ul style="list-style-type: none"> • Increased growth of urban areas due to urbanisation has led to loss of the countryside (1) this reduces the amount of land available for agriculture/ reduces available habitat space reducing biodiversity (1). • Increased demand for food for urban areas has led to the development of monoculture (1) which reduces biodiversity/removes nutrients from the soils (1). • Increased demand for resources such as food in the cities creates jobs in rural agriculture (1) allowing waged employment for those living in rural areas (1) • Loss of young/youthful population from rural areas (1) means an ageing population remains reducing economic output (1) • Loss of population means the demand for services reduces (1) creating a cycle of decline as a lack of services means more are encouraged to the urban areas (1). • Increased demand for water in urban areas has led to an over abstraction of water in surrounding rural areas (1) leading to a lack of water availability in these areas for agricultural and domestic use (1) • Rising house prices in urban areas can result in the out migration of people into the rural areas surrounding them (1) this as a result can drive house prices in these areas meaning local people are forced out as they can no longer afford to live there (1) <p>Accept other correct explanations.</p> | (4) |

| Question number | Answer - Explain why there are both positive and negative attitudes towards immigration (1.4.5.2) | Mark |
|-----------------|---|------------|
| 4 (c) | <p style="text-align: center;">AO1 (6 marks)</p> <p style="text-align: center;">Marking instructions</p> <p>Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance</p> <p>The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <ul style="list-style-type: none"> • Attitudes to immigration vary for economic and social reasons (jobs employers/wages/promotion as well as access to secondary or further education/health) • Attitudes vary for political reasons and cultural reasons (freedom of speech, pressure from voters as well as elite often welcomed by all, history of country may influence attitude). • Some countries such as Australia limit migration through their points-based system, which could mean that local people are brought up to believe that migration is something that needs careful management. • Some countries which seek to grow encourage migration to them to encourage foreign direct investment. • Countries will benefit from foreign works such as UAE and Singapore, see immigration as a positive thing as guest workers work for low wages and are key in rapid construction of infrastructure. • Some countries are unable to cope with the numbers of migrants and therefore have tried to limit the intake due to pressure on jobs/housing/services. • Terrorism has led to anti-migrant views in countries such as France. <p>Accept any valid responses.</p> | (6) |

| Level | Mark | Descriptor |
|---------|------|--|
| | 0 | No rewardable material. |
| Level 1 | 1-2 | <ul style="list-style-type: none"> • Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1) • Understanding addresses a narrow range of geographical ideas which lack detail. (AO1) |
| Level 2 | 3-4 | <ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Understanding addresses a range of geographical ideas which are not fully detailed and/or developed. (AO1) |
| Level 3 | 5-6 | <ul style="list-style-type: none"> • Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Understanding addresses a broad range of geographical ideas which are detailed and fully developed. (AO1) |

| Question Number | Suggest reasons for different attitudes to climate change (1.3.6.3/1.3.5.2) | Mark |
|-----------------|---|------|
| 5 (a) | <p style="text-align: center;">AO1 (5 marks)/AO2 (5 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p>AO1:</p> <ul style="list-style-type: none"> • There are different attitudes to climate change which are reflected by different governments. • Climate change can be seen as a natural process with factors such as volcanic eruptions, changes to climatic cycles and changes to ocean circulation. There are also positive feedbacks which may create the impression of increased warming. • Climate change can be seen as a human driven process as a result of an increasing rate of release of greenhouse gases into the atmosphere leading to an advanced greenhouse effect. The consequence of this is global climate change. <p>AO2:</p> <ul style="list-style-type: none"> • National governments attitudes may vary depending upon their level of development. Emerging countries such as China tend to be focused on rapid economic development through use of fossil fuel intensive energy reliance. This is reflected in the population's attitude with only 45% of the population believing that humans are mainly responsible for climate change. • Developed countries such as the USA have refused to join global actions to reduce emissions as they don't wish to reduce their economic stability. USA has one of the lowest for agreement that humans are responsible for climate change, suggesting that the national policy has impacted on the viewpoints of the population. This is due to a legacy of consumerism, as well as previous leaders approach to the climate change issue. • Interestingly Norway that has a sustainable approach to energy, with a heavy reliance on non-renewable resources has the lowest agreement that humans are responsible. Potential that the focus on sustainable living has prompted the population to consider that there are wider reasons for climate change. • The USA has the highest percentage of the population which believe that the climate not changing at 6%. It also has the highest percentage that believe that climate is changing but humans are not responsible. This could be due to President Donald Trump's | |

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| | <p>withdrawal from the 2015 Paris Agreement, meaning citizens felt that mitigating climate change was not as important as the US economy.</p> <ul style="list-style-type: none">• Countries experiencing the negative impacts of climate change may well hold a view that humans are responsible. India has the highest with 71% of the population, as well as Philippines with 62%, both experience a range of natural hazards some of which are linked to climate change e.g. tropical storms. <p>Accept other appropriate responses.</p> | <p>(10)</p> |
|--|---|--------------------|

| Level | Mark | Descriptor |
|---------|------|---|
| | 0 | No rewardable material. |
| Level 1 | 1-4 | <ul style="list-style-type: none"> • Demonstrates isolated elements of geographical knowledge. (AO1) • Demonstrates isolated elements of geographical understanding, some of which may be inaccurate. (AO1) • Applies knowledge and understanding to geographical information / ideas, making limited logical connections / relationships. (AO2) • Applies knowledge and understanding to geographical information / ideas to produce an interpretation that is not relevant and / or supported by evidence. (AO2) |
| Level 2 | 5-7 | <ul style="list-style-type: none"> • Demonstrates geographical knowledge, which is mostly relevant and may include some inaccuracies. (AO1) • Demonstrates geographical understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding to geographical information / ideas logically, making some relevant connections / relationships. (AO2) • Applies knowledge and understanding to geographical information / ideas to produce a partial but coherent interpretation that is mostly relevant and supported by evidence. (AO2) |
| Level 3 | 8-10 | <ul style="list-style-type: none"> • Demonstrates accurate and relevant geographical knowledge throughout. (AO1) • Demonstrates accurate and relevant geographical understanding throughout. (AO1) • Applies knowledge and understanding to geographical information / ideas logically, making relevant connections / relationships. (AO2) • Applies knowledge and understanding to geographical information / ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2) |

| Question number | To what extent are the differences in human and economic impacts of disasters caused by variations in levels of development. (1.3.2.2/1.3.2.1) | Mark |
|-----------------|--|------|
| 5 (b) | <p style="text-align: center;">AO1 (5 marks)/AO2 (15 marks)</p> <p>Marking instructions</p> <p>Markers must apply the descriptors in line with the general marking guidance (page 3) and the qualities outlined in the levels-based mark scheme below.</p> <p>Responses that demonstrate only AO1 without any AO2 should be awarded marks as follows:</p> <ul style="list-style-type: none"> • Level 1 AO1 performance: 1 mark • Level 2 AO1 performance: 2 marks • Level 3 AO1 performance: 3 marks • Level 4 AO1 performance: 4 marks <p>Indicative content guidance</p> <p>The indicative content below is not prescriptive, and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p>AO1</p> <ul style="list-style-type: none"> • In developed countries major deaths tolls from hazards are rare due to: sophisticated monitoring/regulated local planning systems and government-run preparations. • In developed countries the economic costs of hazards are high due to advanced and widespread insurance allowing people to recover from disasters. • Economic development gives communities resources, organisations and technology to deal with hazards. With increased income people are more likely to live in safe locations and hazard proofed property. <p>AO2</p> <ul style="list-style-type: none"> • Countries such as Japan and the USA have regulated local planning systems, which use land-use zoning and building codes to ensure buildings can withstand hazards and are not located in areas of unacceptable risk. • The level of development is key as Haiti in 2010 and New Zealand in 2000 were both struck by a 7.0 earthquake but had differencing impacts. Haiti had a death toll of around 230,000, whilst New Zealand had no deaths. • Government run preparations such as Japan’s Disaster Prevention Day on 1st September each year, as well as public education about | |

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| | <p>risk, coping, response and evacuation ensures that the population can respond effective to hazards, reducing the likelihood of a high death toll.</p> <ul style="list-style-type: none">• Some countries with very low human development have particularly high vulnerability due to a range of factors: lack basic needs of sufficient water and food in 'normal times'/housing is informally constructed so no hazard resilience/access to healthcare is poor and disease and illness are common/education levels are low, so hazard perception and risk awareness are low. <p>Candidates may argue that other factors are more significant in explaining the variations:</p> <ul style="list-style-type: none">• Governance has a significant impact on the coping capacity and resilience in the event of a natural disaster. Low-level corruption of local government officials is common in many developing countries, meaning building codes are ignored and construction allowed in inappropriate places.• Physical factors can increase vulnerability such as: depth of the focus/geology/relief.• Human factors can increase vulnerability such as population density and level of urbanisation. | <p>(20)</p> |
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| Level | Mark | Descriptor |
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| | 0 | No rewardable material. |
| Level 1 | 1-5 | <ul style="list-style-type: none"> • Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1) • Applies knowledge and understanding of geographical ideas, making limited and rarely logical connections / relationships. (AO2) • Applies knowledge and understanding of geographical information / ideas to produce an interpretation with limited coherence and support from evidence. (AO2) • Applies knowledge and understanding of geographical information / ideas to produce an unsupported or generic conclusion, drawn from an argument that is unbalanced or lacks coherence. (AO2) |
| Level 2 | 6-10 | <ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding of geographical information / ideas with limited but logical connections / relationships. (AO2) • Applies knowledge and understanding of geographical ideas in order to produce a partial interpretation that is supported by some evidence but has limited coherence. (AO2) • Applies knowledge and understanding of geographical information / ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2) |
| Level 3 | 11-15 | <ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is mostly relevant and accurate. (AO1) • Applies knowledge and understanding of geographical information / ideas to find some logical and relevant connections / relationships. (AO2) • Applies knowledge and understanding of geographical ideas in order to produce a partial but coherent interpretation that is supported by some evidence. (AO2) • Applies knowledge and understanding of geographical information / ideas to come to a conclusion, largely supported by an argument that may be unbalanced or partially coherent. (AO2) |
| Level 4 | 16-20 | <ul style="list-style-type: none"> • Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Applies knowledge and understanding of geographical information / ideas to find fully logical and relevant connections / relationships. (AO2) • Applies knowledge and understanding of geographical information / ideas to produce a full and coherent interpretation that is supported by evidence. (AO2) |

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| | | <ul style="list-style-type: none">• Applies knowledge and understanding of geographical information / ideas to come to a rational, substantiated conclusion, fully supported by a balanced argument that is drawn together coherently. (AO2) |
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| Question number | Suggest possible reasons for the changes in FDI between 2010 and 2020 (1.4.2.2) | Mark |
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| 6 (a) | <p style="text-align: center;">AO1 (5 marks)/AO2 (5 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p>AO1</p> <ul style="list-style-type: none"> • Foreign Direct Investment is an investment made by a company based in one country, into a company based in another country (or money, people...) • The levels of Foreign Direct Investment (FDI) in 2020 decline in comparison to 2010 levels. The global FDI collapse in 2020 was brought about by Covid with the decline concentrated in developed nations. • Top recipients of FDI in 2020 tend to be focused on developed nations with the exception of India and China as BRICs. <p>AO2</p> <ul style="list-style-type: none"> • The USA remains the 2nd largest for FDI in both 2010 and 2020 as companies recognise that it is a highly stable market as well as the world's largest economy. The USA has a large domestic market as well as access to the global economy. • China has remained the top country for FDI in both 2010 and 2020 with a number of reasons for China attracting FDI including: market size/labour costs/quality of infrastructure and government policies such as Special Economic Zones. • FDI in the UK was ranked 5th in 2010 but the UK does not appear in the top 5 for 2020 perhaps due to the impact of Brexit as it is no longer able to access the EU without restrictions. • Low cost tax havens such as Luxembourg and Ireland appear for the first time in the top 5 in 2020. With companies able to benefit from reduce tax rates whilst being able to sell to the European market. | |

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| | <ul style="list-style-type: none">• India appears in 2020 ranked 3rd through its focus on IT and digital sectors and government reforms which have made India a key destination for foreign direct investments. | (10) |
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| Level | Mark | Descriptor |
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| | 0 | No rewardable material. |
| Level 1 | 1-4 | <ul style="list-style-type: none"> • Demonstrates isolated elements of geographical knowledge. (AO1) • Demonstrates isolated elements of geographical understanding, some of which may be inaccurate. (AO1) • Applies knowledge and understanding to geographical information / ideas, making limited logical connections/relationships. (AO2) • Applies knowledge and understanding to geographical information / ideas to produce an interpretation that is not relevant and/or supported by evidence. (AO2) |
| Level 2 | 5-7 | <ul style="list-style-type: none"> • Demonstrates geographical knowledge, which is mostly relevant and may include some inaccuracies. (AO1) • Demonstrates geographical understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding to geographical information / ideas logically, making some relevant connections / relationships. (AO2) • Applies knowledge and understanding to geographical information / ideas to produce a partial but coherent interpretation that is mostly relevant and supported by evidence. (AO2) |
| Level 3 | 8-10 | <ul style="list-style-type: none"> • Demonstrates accurate and relevant geographical knowledge throughout. (AO1) • Demonstrates accurate and relevant geographical understanding throughout. (AO1) • Applies knowledge and understanding to geographical information / ideas logically, making relevant connections/relationships. (AO2) • Applies knowledge and understanding to geographical information / ideas to produce a full and coherent interpretation that is relevant and supported by evidence. (AO2) |

| Question Number | Assess the extent to which rapid urban growth in developing or emerging cities creates more challenges than benefits. (1.4.6.2/1.4.6.3) | Mark |
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| 6 (b) | <p style="text-align: center;">AO1 (5 marks)/AO2 (15 marks)</p> <p>Marking instructions</p> <p>Markers must apply the descriptors in line with the general marking guidance (page 3) and the qualities outlined in the levels-based mark scheme below. Responses that demonstrate only AO1 without any AO2 should be awarded marks as follows:</p> <ul style="list-style-type: none"> • Level 1 AO1 performance: 1 mark • Level 2 AO1 performance: 2 marks • Level 3 AO1 performance: 3 marks • Level 4 AO1 performance: 4 marks <p>Indicative content guidance</p> <p>The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p>AO1</p> <ul style="list-style-type: none"> • Rapid urban growth in developing and emerging countries is associated with the growth of megacities as a result of large internal migration and natural increase, leading to rapid urban sprawl in the cities. • A megacity is a city with a population of more than 10 million people. • Negative impacts of rapid urban growth include problems with housing, insufficient infrastructure, traffic problems, pollution and increasing levels of disparity and ethnic division. • Benefits of megacity growth include it developing infrastructure, attracting both internal and foreign investment creating an important economic hub, the development of entrepreneurial innovations <p>AO2</p> <p>Challenges:</p> <ul style="list-style-type: none"> • The rapid growth of megacities in developing countries has led to the rise of slum dwellings and temporary 'shanty' settlements as authorities cannot develop affordable housing to keep pace with the rate of growth. E.g. Dharavi in Mumbai has a population of approximately 1.2 million crowded into one square mile. • Due to the rapid construction of informal housing infrastructure to provide amenities is lacking e.g. 60% of Mumbai's population rely on communal taps and on average there is one toilet per 1000 people. | |

- Traffic congestion has led to the virtual standstill of urban life in 'rush hour' commutes, for example in Mumbai formal sector workers often have to endure 1-2 hour commutes in difficult circumstances.
- Air pollution from the unregulated number of informal businesses set up in slum areas or in factories do not comply with environmental regulations.
- Air pollution also increases as car ownership increases with combustion exhausts producing primary pollutants which are responsible for increasing rates in cancer in large cities.
- The social conditions are arguably a concern with some cases of low paid employment, with poor working conditions, long hours; child labour and sweatshop conditions could be raised as issues.
- Deforestation and inappropriate construction on slopes can lead to an increased risk of landslides and flooding. Often the poorest inhabitants are forced into these high risk areas due to a lack of other alternatives.
- Rapid urbanisation places considerable pressure on strained health and education services. This means schools are overcrowded and there is a shortage of teachers.

Benefits:

- However, the growth of megacities has brought economic benefits as they act as hubs for direct foreign investment, for example Mumbai is home to the headquarters of GSK, Walt Disney Company India and Volkswagen, as well as the Indian Stock market.
- This FDI has led to the development of infrastructure such as internet connects, development of transport hubs (air and rail) and development of new road networks. With further encourages investment and growth of the megacity.
- On the other hand, for many new opportunities has helped lift millions out of poverty and many people have moved into the middle class and seen improvements in quality of life.
- The increase in population in urban areas creates a skilled workforce that attracts transnational corporations and thereby creating jobs. This increases the wealth of the country and through the multiplier effect also creates other peripheral jobs.

Assessment

- It is likely that candidates will argue that the challenges of rapid urban growth have outweighed the benefits. However, some may argue that

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| | the growth has increased the levels of inequality within megacities meaning that the benefits are not equally felt. | (20) |
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| Level 2 | 6-10 | <ul style="list-style-type: none"> • Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1) • Applies knowledge and understanding of geographical information / ideas with limited but logical connections/relationships. (AO2) • Applies knowledge and understanding of geographical ideas in order to produce a partial interpretation that is supported by some evidence but has limited coherence. (AO2) • Applies knowledge and understanding of geographical information / ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2) |
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