GradeMax



Mark Scheme (Results)

June 2025

Pearson Edexcel International GCSE
In Geography (4GE1) Paper 2
Human Geography

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General marking guidance

- All candidates must receive the same treatment. Examiners must mark the last candidate in exactly the same way as they mark the first.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do, rather than be penalised for omissions.
- Examiners should mark according to the mark scheme – not according to their perception of where the grade boundaries may lie.
- 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 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/indicative content will not be exhaustive.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, a senior examiner must be consulted before a mark is given.
- Crossed-out work should be marked **unless** the candidate has replaced it with an alternative response.

Marking guidance for levels-based mark schemes

How to award marks
The indicative content provides examples of how students will meet each skill assessed in the question. The levels descriptors and indicative content reflect the relative weighting of each skill within each mark band.

Finding the right level
The first stage is to decide 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.

Placing 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. Statements relating to the treatment of students who do not fully meet the requirements of the question are also shown in the indicative content section of each levels-based mark scheme. These statements should be considered alongside the levels descriptors.

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.

Question number	Answer	Mark
1(a)(i)	**AO1 (1 mark)** **B** provision of services (1) It cannot be A, C or D as these are not features of the tertiary sector.	**(1)**

Question number	Answer	Mark
1(a)(ii)	**AO1 (1 mark)** Award 1 mark for a suitable factor. • Access to reliable electricity (1) • Proximity to labour force/customers (1). • Good transport links for workers (1). • Availability of land (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
1(b)	**AO1 (1 mark)** **C** industrial (1) It cannot be A (from Malthus theory), B (global process) or D (process in city)	**(1)**

Question number	Answer	Mark
1(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for a reason (AO3) and a further 1 mark for extension through explanation (AO2), up to a maximum of 2 marks. • Increase in tertiary and quaternary sector employment (1) as economy shifts from raw materials to services (1). • An emerging economy driven by industrial growth (1) there is less focus on agriculture (1). • Decline in primary sector employment (1) as people leave rural areas in search of higher paid jobs/raw materials run out/globalisation allows for imports of raw materials (1). • Primary sector employment goes from 33.5-24.1/declines by 9.4 percentage points (1) as fewer workers required due to mechanisation (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
1(d)	**AO1 (1 mark)** Award 1 mark for a suitable non-renewable energy example. • Coal (1) • Oil (1) • (Natural) gas/LNG (1) • Nuclear (1)	**(1)**

Question number	Answer	Mark
1(e)	**AO2 (2+2 marks)** Award 1 mark for a suitable way identified and 1 mark for further expansion, up to a maximum of 2 marks each. • Move to electric vehicles (1) to reduce carbon emissions (1). • Develop more mass rapid transit/public transport (1) to reduce the number of vehicles emitting greenhouse gases (1). • Create more cycle lanes (1) to encourage greater use of bicycles (1). • Build more electric charging points (1) to encourage people to switch to electric vehicles (1). • Car sharing (1) to reduce costs in a household (1) Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
1(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark (AO1) for basic evidence from the photograph, and a further 2 marks (AO3) for explanation of how the impact, up to a maximum of 3 marks. • Building wind turbines on rural land (1) may take up land that could be used for farmland (1) which may reduce rural incomes (1). • Building a wind farm near a village (1) may affect the visual impression of the landscape (1) as some people may not like the view (1). • Wind turbines in fields (1) may create more renewable energy (1) which increases energy resilience (1). • Increase in wind turbines (1) during construction could destroy fields and hedges (1) reducing biodiversity (1). • Could lead to deforestation (1) which could lead to increased CO_2 (1) and soil erosion (1). • Noise pollution (1) disturbing the peace for the people living in the village (1) people may want to leave the area (1) • Wind turbines increasing (1) creates changes to local microclimate (1) impacts habitats (1) • Building wind turbines on rural land (1) loss of land to build housing/ do agriculture on (1) because turbines take a lot of space (1) • Building wind turbines in the countryside (1) may mean birds are killed/struck by the blades (1) creating a loss in biodiversity (1) Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
1(g)	**AO2 (2+2 marks)** Award 1 mark for each factor, and a further expansion mark, up to a maximum of 2 marks each. A range of developing or emerging country contexts maybe chosen. Nigeria: • Increased demand for energy due to industrial growth (1) which requires more energy to run the machines (1). • Increased quality of life can lead to increased use of electrical consumer goods (1) which increases demand for energy (1). China: • Increase in population (1) leading to more need for electricity in households (1) • Rapid urbanisation (1) leading to growth in electricity demands to support cities (1). Accept any other appropriate response.	**(4)**

<table>
<tr><th>Question number</th><th colspan="2">Indicative content</th></tr>
<tr><td>1 (h)</td><td colspan="2">AO3 (4 marks)/AO4 (4 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:

AO3
• In 1798 Thomas Malthus published ‘An Essay on the Principle of Population. This was a pessimistic view on the relationship between population and resources. It outlined how food supply could be increased with greater use of land but that it would only growth arithmetically while population growth would increase geometrically.
• Malthus predicted that over time population growth would outstrip resources creating a Malthusian catastrophe or point of crisis.
• In 1965 Ester Boserup published a more optimistic view on the relationship between population and resources. She argued that human innovation would allow humans to produce sufficient food.
• These innovations could be driven by finding new resources, the development of new technologies (such as those in the Green Revolution), advances in agricultural techniques, and more efficient production processes.

AO4
• Figure 1c shows how Malthus thought population would outstrip food resources over time.
• Figure 1c shows how Malthus had a pessimistic outlook predicting a catastrophe caused by population growth.
• Figure 1c shows how Ester Boserup thought that food supply would grow in stages to be higher than population growth.
• Figure 1c shows how Ester Boserup had a more optimistic outlook on population growth and that there would always be sufficient food supply.</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>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3)
• Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)</td></tr>
</table>

Level 2	**4–6**	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark
2(a)(i)	D between the Tropic of Cancer and the Tropic of Capricorn (1) The answer cannot be A (too high latitude), B (too low latitude), C (too low latitude).	**(1)**

Question number	Answer	Mark
2(a)(ii)	**AO1 (1 mark)** Award 1 mark for suitable characteristic. • Short hours of winter sunshine (1) • Low precipitation/arid/dry (1) • (Extremely) cold (1) • Strong winds (1) • Stunted/short/sparse vegetation (1) • Short growing season (1) • High altitude / latitude (1) • Harsh climate (1) • Lichen/mosses (1) • Permafrost (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** B regulate air quality (1) The answer cannot be A (climate characteristics), C (product not a service) or D (product not a service).	**(1)**

Question number	Answer	Mark
2(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for evidence from the photograph, and a further mark for development of how this demonstrates how humans have changed the environment. • Rice fields (1) show land used for agriculture (1) • Steep sides have been changed to terraces/steps (1) to grow rice/to prevent erosion/runoff (1). • Crop grown (1) with irrigation to support growth (1). • Trees at regular distances (1) suggests they have been planted rather than natural vegetation (1). • Buildings/constructions (1) shows human live in this location/suggestion human settlement (1) • Stone walls separating crops (1) this does not happen naturally/they are manmade (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
2(d)	**AO1 (1 mark)** Award 1 mark for identification of suitable strategy. • Increased use of electric vehicles/cars (1). • Reduce domestic burning of fuels/wood burning stoves (1). • Introduce environmental regulations (for factories) (1). • Use less fertiliser (1) • Plant more trees/afforest (1) • Use renewable energy (1) • Newer /electric equipment (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(e)	**AO2 (2+2 marks)** Award 1 mark for identification of a suitable advantage or disadvantage and a further expansion mark, up to a maximum of 2 marks each. • Advantage: o Potential for higher yields (1) which can improve farm income (1) o Some crops may be less vulnerable to climate change (1) so will have improved resistance (1). o May be more resistant to pests (1) so less crops are damaged (1). • Disadvantage: o Expensive (1) so not accessible for all farmers (1). o Potential for cross-pollination (1) which could contaminate other crops (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark suitable way identified and a further 2 marks for extension through explanation or description with references to the resource, up to a maximum of 3 marks. • Governments can provide funding to tackle rural isolation (1) which could include improving public transport services (1) so residents can be connected to the services in local settlements. (1). • Improve broadband access in rural areas (1) to ensure remote residents can still access services (1) and can reduce loneliness (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(g)	**AO2 (4 marks)** Award 1 mark for identification of a way that rural economies are changing and an additional 1 mark for development through further explanation or exemplification, up to a maximum of 2 marks for each. A range of countries could be chosen. For example: Kenya: • Farmers moving from growing crops to flowers (1) as profits can be higher (1). • Rural-urban migrations is causing labour shortages (1) and crop production has reduced (1). • Expanding opportunities for tourism (1) such as onsite tours and tasting of products (1). • Mechanisation (1) leading to changing requirements for labour/leading to a reduced workforce (1). Accept any other appropriate response.	**(4)**

<table>
<tr><th>Question number</th><th colspan="2">Indicative content</th></tr>
<tr><td>2 (h)</td><td colspan="2">AO3 (4 marks)/AO4 (4 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:

AO3
• Urbanisation and associated processes of rural-urban migration mean that there are lower proportions of people living in rural areas. It is expected that only around 40% of the world's population will live in rural areas by 2030.
• Rural-urban migration can lead to the decline or rural areas. Often the migrants are young and leave to find higher paid jobs in cities. This can lead to shortages of work in rural areas which would typically have had higher proportions of jobs in agriculture.
• A decline in employment in agriculture can lead to shortages in workers and reduction in crop yields.
• There can also be shifts in employment in rural areas, as more people are able to work remotely, they may work in tertiary and quaternary sector jobs but still remain in rural areas.

AO4
• Figure 2c shows how employment in agriculture has declined for countries across the European Union between 2005 and 2020.
• Figure 2c shows how there is significant variation in the percentage of employment in agriculture both in 2005 and 2050.
• Figure 2c shows that Romania has remained the country with the highest employment in agriculture during this time period, declining from 33% to around 21%.
• Figure 2c shows how the majority of countries in the EU have a percentage of employment in agriculture below 10%.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No rewardable material.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3)
• Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)</td></tr>
<tr><td>Level 2</td><td>4–6</td><td>• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly</td></tr>
</table>

		relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark
3(a) (i)	**AO1 (1 mark)** D – a city with a population of 10 million (1) The answer cannot be A, B or C as these all have populations which are too small to be considered megacities.	**(1)**

Question number	Answer	Mark
3(a) (ii)	**AO1 (1 mark)** Award 1 mark for a suitable factor. • Rural-urban migration (1) • Improved transport (1) • Job opportunities (1) • Natural increase/high birth rate/ BR > DR (1) • Perceptions of a better quality of life in cities (1) • Government policy (1) • Urbanisation (1) • Multiplier effect (1) • Economic development (1) • Population growth (1) • Economies of scale (1) • Good transportation (1) • Increase in technology (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
3(b)	**AO1 (1 mark)** A coal fired power stations (1) The answer cannot be B, C or D as these would not cause air pollution in cities.	**(1)**

Question number	Answer	Mark
3(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for suitable environmental challenge that would be created by what is shown in the resource (AO3) and a further 1 mark for the way politicians could manage it (AO2), up to a maximum of 2 marks. • Waste disposal (1) could increase funding for waste collection/recycling schemes (1) • Water pollution (1) could campaign/raise awareness to stop people adding litter to the water (1) • Dumping of plastics (1) create regulations/security cameras/fines for offenders (1) • Littering (1) community clean ups could be brought in (1). Accept any other appropriate response	**(2)**

Question number	Answer	Mark
3(d)	**AO1 (1 mark)** Award 1 mark for a suitable reason: • It can lead to inequality (1) • Differences in quality of life (1) • Pressure on public services in some areas (1) • Unequal access to services (1) • Poverty (1) • Language barriers (1) • Urban decline (1) • Discrimination (1). Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
3(e)	**AO2 (2+2 marks)** Award 1 mark for each initial reason, with a further mark for expansion mark, up to a maximum of 2 marks each. • High property prices in city centres (1) mean people move to smaller towns or rural areas (1). • Desire for more access to green spaces (1) which are not usually as accessible within cities (1). • Desire for larger houses to raise a family (1) and cities typically have smaller/more expensive properties (1). • Get away from air pollution (1) to a rural area where the air is cleaner/less harmful to health (1)	**(4)**

	• Retired/work from home (1) so no need to live near the city centre for jobs/prefer a calmer/quieter place to live (1) Accept any other appropriate response.	

Question number	Answer	Mark
3(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for an identification of a feature shown in the resource and a further 2 marks for extension through explanation or description of the way this will create a challenge, up to a maximum of 3 marks. • Many cities indicate growth in the size of informal settlements (1) which means many people may be living in insecure conditions (1) which may increase the risk of poverty (1). • There are at least 2 cities with at least 120-200% growth in the size of informal settlements (1) which may create challenges for provision of education and healthcare (1) due to rapid population growth (1). • Argentina has 200.1-600%/higher growth in urban areas (1) big informal economy which is unregulated (1) increasing the crime rate (1) Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
3(g)	**AO2 (4 marks)** Award 1 mark for initial reason and an additional 1 mark for development through further explanation or exemplification. ○ Lack of other available land in cities (1) combined with a high demand for housing (1). ○ Industrial/business parks (need lots of open space for large complexes) (1) and room to expand in the future (1). ○ Potentially cheaper to build on than brownfield sites (1) as it does not need to be cleared/treated first (1). Accept any other appropriate response.	**(4)**

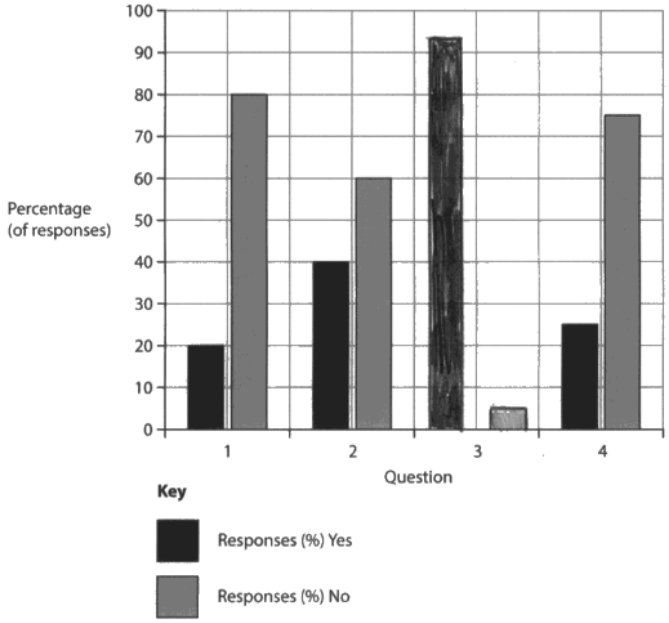
Question number	Indicative content
3 (h)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below 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:

	AO3 • There are a range of possible strategies aimed at improving the quality of life and its different components. This can include addressing waste disposal, transport, education, health, employment and housing. • Many strategies such as introducing new transport systems (such as new metro systems, new electric bus networks etc) can improve aspects of quality of life, such as reducing travel times. But few strategies tend to address overall quality of life. • These strategies can be implemented by a range of stakeholders at different scales, from the individual through to the global. The effectiveness of these strategies depends on their objectives, funding, sustainability and feasibility for implementation. **AO4** • Figure 3c shows strategies used to improve transport and electricity supply in the context of developing/emerging countries. • Figure 3c shows how a new mass rapid transit project in Dhaka, Bangladesh has the potential to help people reach different areas of the city more quickly. • Figure 3c shows how large-scale investment from organisations like the World Bank (in combination with other investors) can lead to improvements in electricity access. • Figure 3c shows has schemes to improve different aspects of living in cities can take place at different scales (from the city to a continent).	
Level	**Mark**	**Descriptor**
	0	No rewardable material.
Level 1	**1–3**	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	**4–6**	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	**7–8**	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark
4(a)	**AO3 (1 mark)** Award one mark for a suitable piece of equipment: • Camera/Mobile phone (1) • Environmental quality survey sheet (1) • Questionnaire (1) • Map (1) • Stopwatch (1) • Notebook (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
4(b)	**AO3 (1 mark)** Award 1 mark for either of the following: • Websites/leaflets (on local solar power schemes). (1) • Data on the number of solar panels (in Paris). (1)	**(1)**

Question number	Answer	Mark
4(c)	**AO3 (3 marks)** Award 1 mark for a suitable reason, and a further mark for development or explanation up to a maximum of 3 marks. • It is less biased than other options (1) as participants are chosen randomly rather than for a particular reason (1) which means data should be more accurate (1). • Random sampling is easy to implement (1) it does not require access to a particular group of people (1) so they can be selected as they walk by (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
4(d)(i)	**AO4 (2 marks)** Award 1 mark for accurate plotting of each bar.  	**(2)**

Question number	Answer	Mark
4(d)(ii)	**AO3 (1 mark)** Award 1 mark for another suitable presentation method: • Pie chart (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
4(d)(iii)	**AO4 (2 marks)** Award 1 mark for correct method to calculate the range. Award 2 marks for correct answer. NB Only look at working out if answer is incorrect. 50-20 (1) (method mark) 30 (2)	**(2)**

Question number	Answer	Mark

4(e)	**AO3 (2 marks)**
	
	Award 1 mark for an advantage, and 1 mark for a disadvantage.
	
	• Advantage:
	  ○ Easy to see patterns for each site (1)
	  ○ Easy to compare sites (1)
	• Disadvantage:
	  ○ Does not show any correlations between questions (1)
	  ○ This chart shows percentages rather than real numbers of responses (1).
	  ○ Difficult to read accurately because of the scale on the y-axis being so spaced out (1)
	  ○ Difficult to know what question was asking from the graph (1)
	
	Accept any other appropriate response.
		(2)

<table>
<tr><th>Question number</th><th colspan="2">Indicative content</th></tr>
<tr><td>4(f)</td><td colspan="2">AO3 (4 marks)/AO4 (4 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:

AO3
● Evaluation is likely to be linked to the use of a range of data collection methods to generate qualitative data.
● Evaluation will most likely make links between the qualitative data used and how this strengthened the argument/conclusions.
● Evaluation will most likely be linked to the evaluation of the use of quantitative data alongside qualitative data to form accurate conclusion.
● Recognition of the extent to which the type of data collected can affect how data is analysed/ the aim is met/conclusions are made.
● A supported judgement is reached about the use of qualitative data in their enquiry drawing on evidence such as strengths, weaknesses, alternatives and relevant examples using data.

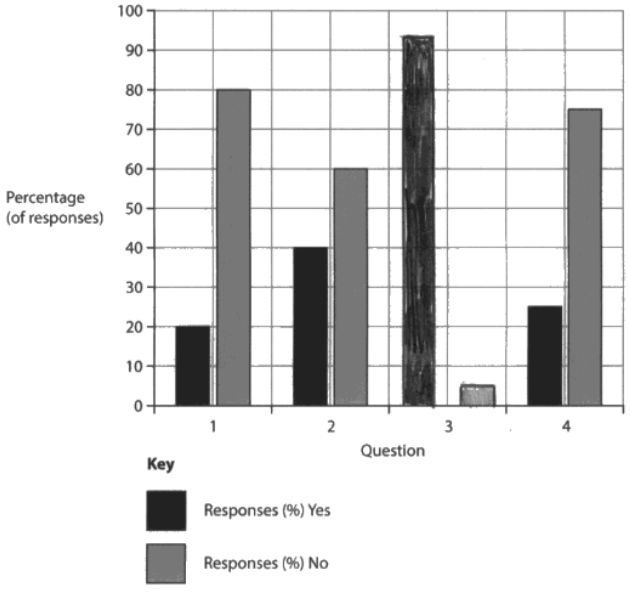
AO4
● There is evidence of using different skills and techniques as part of primary fieldwork.
● There is evidence of qualitative techniques such as interviews, open ended questions in questionnaires, photographs.
● There is evidence of using different skills and techniques relevant to how data is collected or analysed as part of the enquiry.
● There is evidence of using different skills and techniques to investigate aspects of economic activity and energy.
● There is evidence of own fieldwork data i.e. reference to the field data collected by the student.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No acceptable response.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>● Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3)
● Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)</td></tr>
</table>

Question number	Answer		Mark
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)	
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity and uses relevant geographical terminology consistently. (AO4)	

Question number	Answer	Mark
5(a)	**AO3 (1 mark)** Award one mark for a suitable piece of equipment: • Camera/Mobile phone (1) • Environmental quality survey sheet (1) • Questionnaire (1) • Map (1) • Stopwatch (1) • Notebook (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(b)	**AO3 (1 mark)** Award 1 mark for either of the following: • Websites and (real estate agents') leaflets (1) • Data on the number of residents (in the village) (1)	**(1)**

Question number	Answer	Mark
5(c)	**AO3 (3 marks)** Award 1 mark for a suitable reason, and a further mark for development or explanation up to a maximum of 3 marks. • It is less biased than other options (1) as participants are chosen randomly rather than for a particular reason (1) which means data should be more accurate (1). • Random sampling is easy to implement (1) it does not require access to a particular group of people (1) so they can be selected as they walk by (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
5(d)(i)	**AO4 (2 marks)** Award 1 mark for accurate plotting of each bar.  	**(2)**

Question number	Answer	Mark
5(d)(ii)	**AO4 (1 mark)** Award 1 mark for another suitable presentation method: • Pie chart (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(d)(iii)	**AO4 (2 marks)** Award 1 mark for correct method to calculate the range. Award 2 marks for correct answer. NB Only look at working out if answer is incorrect. 50-20 (1) (method mark) 30 (2)	**(2)**

Question number	Answer	Mark

5(e)	**AO3 (2 marks)**
	
	Award 1 mark for an advantage, and 1 mark for a disadvantage.
	
	• Advantage:
	  ○ Easy to see patterns for each site (1)
	  ○ Easy to compare sites (1)
	• Disadvantage:
	  ○ Does not show any correlations between questions (1)
	  ○ This chart shows percentages rather than real numbers of responses (1).
	  ○ Difficult to read accurately because of the scale on the y-axis being so spaced out (1)
	  ○ Difficult to know what question was asking from the graph (1)
	
	Accept any other appropriate response.
		(2)

Question number	Indicative content
5(f)	**AO3 (4 marks)/AO4 (4 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: **AO3**

	• Evaluation is likely to be linked to the use of a range of data collection methods to generate qualitative data. • Evaluation will most likely make links between the qualitative data used and how this strengthened the argument/conclusions. • Evaluation will most likely be linked to the evaluation of the use of quantitative data alongside qualitative data to form accurate conclusion. • Recognition of the extent to which the type of data collected can affect how data is analysed/ the aim is met/conclusions are made. • A supported judgement is reached about the use of qualitative data in their enquiry drawing on evidence such as strengths, weaknesses, alternatives and relevant examples using data. **AO4** • There is evidence of using different skills and techniques as part of primary fieldwork. • There is evidence of qualitative techniques such as interviews, open ended questions in questionnaires, photographs. • There is evidence of using different skills and techniques relevant to how data is collected or analysed as part of the enquiry. • There is evidence of using different skills and techniques to investigate aspects of urban environments. • There is evidence of own fieldwork data i.e. reference to the field data collected by the student.

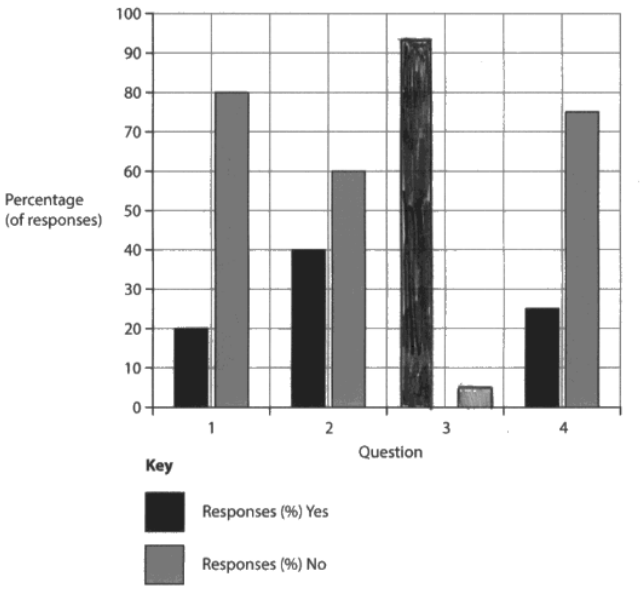
Level	**Mark**	**Descriptor**
	0	No acceptable response.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout.

Question number	Answer		Mark
		A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity and uses relevant geographical terminology consistently. (AO4)	

Question number	Answer	Mark
6(a)	**AO3 (1 mark)** Award one mark for a suitable piece of equipment: • Camera/Mobile phone (1) • Environmental quality survey sheet (1) • Questionnaire (1) • Map (1) • Stopwatch (1) • Notebook (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
6(b)	**AO3 (1 mark)** Award 1 mark for either of the following: • Websites/leaflets on local businesses (1) • Data on the number of businesses (that have opened and closed) (1)	**(1)**

Question number	Answer	Mark
6(c)	**AO3 (3 marks)** Award 1 mark for a suitable reason, and a further mark for development or explanation up to a maximum of 3 marks. • It is less biased than other options (1) as participants are chosen randomly rather than for a particular reason /equal chance of being sampled (1) which means data should be more accurate (1). • Random sampling is easy to implement (1) it does not require access to a particular group of people (1) so they can be selected as they walk by (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
6(d)(i)	**AO4 (2 marks)** Award 1 mark for accurate plotting of each bar. (Yes – 95%/No 5%)  	**(2)**

Question number	Answer	Mark
6(d)(ii)	**AO4 (1 mark)** Award 1 mark for another suitable presentation method: • Pie chart (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
6(d)(iii)	**AO4 (2 marks)** Award 1 mark for correct method to calculate the range. Award 2 marks for correct answer. NB Only look at working out if answer is incorrect. 50-20 (1) (method mark) 30 (2)	**(2)**

Question number	Answer	Mark
6(e)	**AO3 (2 marks)** Award 1 mark for an advantage, and 1 mark for a disadvantage.	

	• Advantage:
	  ○ Easy to see patterns for each site (1)
	  ○ Easy to compare sites (1)
	• Disadvantage:
	  ○ Does not show any correlations between questions (1)
	  ○ This chart shows percentages rather than real numbers of responses (1).
	  ○ Difficult to read accurately because of the scale on the y-axis being so spaced out (1)
	  ○ Difficult to know what question was asking from the graph (1)
	
	Accept any other appropriate response.
		(2)

Question number	Indicative content
6(f)	**AO3 (4 marks)/AO4 (4 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: **AO3** • Evaluation is likely to be linked to the use of a range of data collection methods to generate qualitative data. • Evaluation will most likely make links between the qualitative data used and how this strengthened the argument/conclusions. • Evaluation will most likely be linked to the evaluation of the use of quantitative data alongside qualitative data to form accurate conclusion. • Recognition of the extent to which the type of data collected can affect how data is analysed/ the aim is met/conclusions are made. • A supported judgement is reached about the use of qualitative data in their enquiry drawing on evidence such as strengths, weaknesses, alternatives and relevant examples using data. **AO4** • There is evidence of using different skills and techniques as part of primary fieldwork. • There is evidence of qualitative techniques such as interviews, open ended questions in questionnaires, photographs. • There is evidence of using different skills and techniques relevant to how data is collected or analysed as part of the enquiry.

Question number	Answer	Mark
	• There is evidence of using different skills and techniques to investigate aspects of urban environments. • There is evidence of own fieldwork data i.e. reference to the field data collected by the student.	

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark
7(a)(i)	**AO1 (1 mark)**	

	A high humidity (1) The answer cannot be B, C or D as these are not characteristics associated with tropical rainforests.	**(1)**

Question number	Answer	Mark
7(a)(ii)	**AO1 (1 mark)** **B** infertile soils (1) The answer cannot be A, C or D as these are not reasons why they would be considered fragile, they are more strengths of the ecosystem.	**(1)**

Question number	Answer	Mark
7(a)(iii)	**AO1 (2 marks)** Award 1 mark for each suitable impact, up to a maximum of 2 marks. • Loss of biodiversity (1) • Soil erosion (1) • Reduced climate regulation (1) • Increased CO_2 in the atmosphere (1) • Desertification (1) • Increase flood risk (1) • Loss of nutrients (1) • Climate change (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
7(b) (i)	**AO3 (1 mark)** Award 1 mark for each of the following answer. • India (1)	**(1)**

Question number	Answer	Mark
7(b)(ii)	**AO2/AO3 (2 marks)** Award 1 mark for identification of a feature shown on the resource, and a further mark for a reason for this pattern, up to a maximum of 2 marks per idea. • There is significant variation in the risk of sea level rise (1) from less than 100,000 people to up to 9.9m (1). • Generally the risk of sea level rise is low compared to other areas of the world (1) with the highest number at risk remaining under 10 million (1). • Brazil is at the highest level of risk on the north/east coast (1) whereas Chile/landlocked Bolivia on the west/south coast is at less/no risk of flooding (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
7(b)(iii)	**AO2/AO3 (2 marks)** Award 1 mark for a relevant description of the distribution shown on the resource, and a further mark for a suitable reason up to a maximum of 2 marks per idea. • Population (density) (1) as many countries with a high number of cities in coastal areas will have high risk (1). • There is a global risk as sea level rise will affect all countries (1) as sea levels are predicted to rise considerably due to global climate change (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
7(b)(iv)	**AO2/AO3 (2 marks)** Award 1 mark for identification of a suitable way, with a further mark for development, up to a maximum of 2 marks per idea. • The data could be used to decide where greater adaptation methods are implemented (1) and ensure that suitable funding is made available (1). • It could be used as evidence for international agreements on climate change (1) to show the importance of taking action (1).	

	Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
7(c)	**AO2 (2 marks)** Award 1 mark for identification of each impact of climate change, up to a maximum of 2 marks. • Increased temperatures/global warming (1) • Disrupted food chains/ecosystems (1) • Changing weather patterns/seasonal shift (1) • Increased frequency of extreme weather events (1) • Increased drought (1) • Changing crop growth patterns (1) • Displacement of people/climate refugees (1) • Melting icecaps (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
7(d)	**A01(2 marks)/AO2 (2 mark)** Award 1 mark for initial point for solar variations and farming, and further mark for further development, up to a maximum of 2 marks. Solar Variations: • Increased sunspot activity (1) leads to changes in the amount of solar radiation received by the earth (1). • Milankovitch cycles/precession/axial tilt/elliptical orbit/obliquity/eccentricity (1) influence the amount of solar radiation reaching the earth (1) Farming: • Cattle farming can lead to increased methane produced (1) which can contribute to the enhanced greenhouse effect (1). • Deforestation for plantations/cattle ranching (1) can lead to reduced CO_2 being absorbed by trees (1). Accept any other appropriate response.	**(4)**

<table>
<tr><th>Question number</th><th colspan="2">Indicative content</th></tr>
<tr><td>7(e)</td><td colspan="2">AO3 (3 marks)/AO4 (3 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:

AO3
• Desertification is defined by the United Nations as ‘land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic factors and human activities’. It is more than just the expansion of deserts but more a process of land degradation in water scarce areas of the world.
• There are a range of causes of desertification including drought, population pressure, fuel supply, overgrazing and migration, with many of these being interlinked.
• Biodiversity loss is an impact of desertification caused by loss of vegetation and habitats for plants and animals. However, this in turn creates more sparse areas which become at greater risk of soil erosion and therefore land degradation.

AO4
• Figure 7b shows how desertification can lead to increased CO2 emissions and increase in extreme events.
• Figure 7b shows how desertification can lead to loss of nutrients and moisture in the soil.
• Figure 7b shows how desertification can lead to a loss of biodiversity.
• Figure 7b demonstrates how the causes of desertification operate as a feedback loop with the impacts make desertification worse.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No rewardable material.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3)
• Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)</td></tr>
<tr><td>Level 2</td><td>4–6</td><td>• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to</td></tr>
</table>

		judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)

•

Question number	Indicative content
7 (f)	**AO2 (4 marks), AO3 (4 marks), AO4 (4 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: **AO2** • There are a range of impacts linked to climate change including sea level rise. Sea level rise has risen by around 21cm since 1880. Predictions for sea level rise vary based on different projections but could be as much as 2m by 2100 and 3.9m by 2150 depending on future emissions. • Other impacts of climate change include increased temperature, increased frequency of extreme weather events, drought, loss of species, crop failure and food shortages. **AO3** • The impacts of climate change are likely to be uneven, with those living in coastal communities exposed to more risks from sea level rise than those living further inland. Although those living in areas in desert biomes may experience water shortages and crop failures due to lack of water. • The impacts of climate change are interrelated and also uncertain to what extent they may take place. There are predictions about how changing temperatures may shift the areas that certain crops may grow in but this is uncertain. **AO4** • Figure 7a shows there is variation in the risk of sea level rise. • Figure 7a shows how southeast Asia has a high number of people at risk of sea level rise by 2100, with 10-50m people in China and India. • Figure 7a shows how Africa has many countries which have relatively low numbers of people at risk of sea level rise by 2100. • Figure 7b shows how desertification can lead to increased CO2 emissions and increase in extreme events. • Figure 7b shows how desertification can lead to loss of nutrients and moisture in the soil, and how this can lead to a loss of biodiversity

Question number	Indicative content	
	• Figure 7b demonstrates how the causes of desertification operate as a feedback loop with the impacts make desertification worse.	
Level	**Mark**	**Descriptor**
	0	No acceptable response.
Level 1	1–4	• Demonstrates isolated elements of understanding of concepts and the interrelationship between places, environments and processes. (AO2) • Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (A04)
Level 2	5–8	• Demonstrates elements of understanding of concepts and the interrelationship between places, environments and processes. (AO2) • Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	9–12	• Demonstrates accurate understanding of concepts and the interrelationship of places, environments and processes. (AO2) • Applies understanding to deconstruct information and provides logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark
8(a)(i)	**AO1 (1 mark)** A conflict forces people to move (1) The answer cannot be B, C or D as these are not push factors for migration.	**(1)**

Question number	Answer	Mark
8(a)(ii)	**AO1 (1 mark)** D to gain access to education (1) The answer cannot be A B or C as these are not types of voluntary migration.	**(1)**

Question number	Answer	Mark
8(a)(iii)	**AO1 (2 marks)** Award 1 mark for each suitable impact provided. • Loss of labour in rural areas (1) • Urbanisation/growth of urban areas/urban sprawl (1) • Decline of rural areas (1) • Pressure on services (e.g. healthcare/education) in urban areas (1) • Lack of affordable housing in urban areas / homelessness (1). • Increase informal economy (1) • Lack of jobs/unemployment/more employment (1) • Increase demand for resources (e.g. water, electricity, utilities, energy) • More crime (1) • More congestion/traffic increase (1) • Increased population (density)/overcrowding (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
8(b) (i)	**AO3 (1 mark)** Award 1 mark for: • Australia (1)	**(1)**

Question number	Answer	Mark
8(b)(ii)	**AO2/AO3 (2 marks)** Award 1 mark for identification of a pattern shown on the resource, and a further mark for a reason for this pattern, up to a maximum of 2 marks per idea. • Most of Europe is in positive net migration (1) with the highest net migration rates being experienced in Scandinavia and Eastern Europe (1). • Southern Europe has relatively low net migration growth (1) while Northern Europe has higher rates of growth around +100/1000(1). • Europe has positive net migration (1) Richer countries have the highest amount of positive net migration (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
8(b)(iii)	**AO2/AO3 (2 marks)** Award 1 mark for identification of a pattern shown on the resource, and a further mark for possible impact of this pattern, up to a maximum of 2 marks per idea. • Some countries such as Canada (and Australia) have high levels of net migration growth (1) which may lead to pressure on services/competition for jobs (1). • Regions with high positive net migration like the UK (1) may experience brain gain for highly skilled workers to come to work as doctors/dentists/vets (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
8(b)(iv)	**AO2/AO3 (2 marks)** Award 1 mark for identification reason and a further mark extension or development, up to a maximum of 2 marks per idea.	

	• It demonstrates a global movement of people (1) which indicates that movement of workers which is important for the growth of the global economy (1). • It shows how some countries are desirable for people to move to (1) demonstrating how some people have the freedom to move around the world (1). • Places with positive net migration (1) have best employment opportunities (1) • Places with negative net migration (1) have least employment opportunities/high unemployment (1) Accept any other appropriate response.	**(2)**

Question number	**Answer**	**Mark**
8(c)	**AO2 (2 marks)** Award 1 mark for each suitable reason. • Increased disposable income (1) • Expanded air networks/ improved transport (1) • Increased cheap/budget airlines (1) • Increased awareness of different locations /information from media (1) • Improvements in communications (1) • (More purpose-built tourist) resorts (1) • Tourism as an economic strategy (1) • Package holidays (1). Accept any other appropriate response.	**(2)**

Question number	**Answer**	**Mark**
8(d)	**A01(2 marks)/AO2 (2 mark)** Award 1 mark for a relevant economic impact, and further mark for further description or development, up to a maximum of 2 marks. • Increased opportunities for jobs in tourist industry such as hotel workers (1) which can improved household incomes/disposable income (1). • Increase GDP (1) as tourists spend money on goods/food/souvenirs (1) • (Import) leakage (1) as countries need to import goods/food/beverages to satisfy foreign tourist market costing the country money (1) • (Export) leakage (1) workers are paid into foreign bank accounts/maintain their property in their home country and do not invest in the host country's economy (1) Accept any other appropriate response.	**(4)**

<table>
<tr><th>Question number</th><th colspan="2">Indicative content</th></tr>
<tr><td>8(e)</td><td colspan="2">AO3 (3 marks)/AO4 (3 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:
AO3
• Transnational corporations (TNCs) are present in multiple countries so facilitate communication, movement of goods, people and revenue between countries.
• TNCS can be involved in the spread of culture for example McDonalds is one of the largest fast-food chain TNCs with over 34,000 restaurants in 119 countries and in doing so has spread fast food culture across the globe.
• The presence of TNCs in a host country can attract additional inward investment from other TNCs so can facilitate further international links driving globalisation.
• Some TNCs locate parts of their company (e.g. manufacturing) in developing countries where wages are lower. This can encourage the movement of manufacturing away from developed countries into a greater range of countries fuelling globalisation through the expansion of supply chains.
• Globalisation is also fostered through economic development, advances in technology and transport but ultimately these are factors that affect the operation of TNCs too.

AO4
• Figure 8b indicates there can be positive and negative impacts of TNCs.
• Figure 8b indicates that positive impacts can include increased investments and improved infrastructure.
• Figure 8b indicates how there can be negative impacts such as low wages for workers and environmental damage.</td></tr>
<tr><th>Level</th><th>Mark</th><th>Descriptor</th></tr>
<tr><td></td><td>0</td><td>No rewardable material.</td></tr>
<tr><td>Level 1</td><td>1–3</td><td>• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3)
• Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)</td></tr>
<tr><td>Level 2</td><td>4–6</td><td>• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant</td></tr>
</table>

		understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)

•

Question number	Indicative content
8 (f)	**AO2 (4 marks), AO3 (4 marks), AO4 (4 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: **AO2** • The growth of the global economy has been driven by a range of factors including trade, foregin investment, aid, labour, modern transport and information technologies. • Global trade of goods was around US$24.9 trillion, and services around US$6.8 trillion in 2022. • The level of trade and investment countries are involved in varies, and some countries rely on international aid (through IMF loans or similar) or international aid to support their economies. In 2022 around US$ 22.3 billion of international aid was provided globally. • Transnational corporations are businesses that have global networks, and in doing so involve the employment of people and trade of goods around the world. **AO3** • TNCs are an improtant component of the global economy as they facilitate investment in different areas, the employment of people and the growth of economies. • The global economy is also driven by the movement of people who are moving to where there is work available, and often in search of more highly skilled work. It is these movements that enable companies like TNCs to operate. • The modern global economy is dependent on communications such as the internet, and the growth of these communications has facilitated greater trade beyond traditional TNC networks. **AO4** • Figure 8a shows how there is significant variation in global net migration rates. Even within continents such as Africa and South America there are a mix of countries with net migration gain and loss.

Question number	Indicative content	
	• Figure 8a shows how Central America, Northern Africa and much of Asia have a slight net migration loss (around 0-2.5 per 1,000). • Figure 8a shows how developed countries such as USA, Canada and Australia have high levels of net migration gain (between 2.5-10 per 1,000) • Figure 8b indicates there can be positive and negative impacts of TNCs. • Figure 8b indicates that positive impacts can include increased investments and improved infrastructure. • Figure 8b indicates how there can be negative impacts such as low wages for workers and environmental damage.	
Level	**Mark**	**Descriptor**
	0	No acceptable response.
Level 1	1–4	• Demonstrates isolated elements of understanding of concepts and the interrelationship between places, environments and processes. (AO2) • Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (A04)
Level 2	5–8	• Demonstrates elements of understanding of concepts and the interrelationship between places, environments and processes. (AO2) • Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	9–12	• Demonstrates accurate understanding of concepts and the interrelationship of places, environments and processes. (AO2) • Applies understanding to deconstruct information and provides logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark
9(a)(i)	**AO1 (1 mark)** B Norway GDP per capita US$89,242 It cannot be A, C or D as these have a lower GDP per capita. Countries with the highest GDP per capita are considered to be more developed.	**(1)**

Question number	Answer	Mark
9(a)(ii)	**AO1 (2 marks)** Award 1 mark for a suitable feature: • Age (1) • Gender/sex (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
9(a)(iii)	**AO1 (1 marks)** D quality of healthcare services (1) The answer cannot be A, B or C as these do not have a direct impact on maternal mortality rates.	**(1)**

Question number	Answer	Mark
9(b) (i)	**AO3 (1 mark)** Award 1 mark for the following answer. • Saudi Arabia (1)	**(1)**

Question number	Answer	Mark
9(b)(ii)	**AO2/AO3 (2 marks)** Award 1 mark for identification of a pattern shown on the resource, and a further mark for a description of this pattern, up to a maximum of 2 marks per idea. • There is significant variation from extremely high to low experiences of water stress in Africa (1) with most of central Africa thought to experience low to medium water stress (1).	

	• The north and south of Africa are expected to experience high and extremely high-water stress (1) with the exception of Egypt (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
9(b)(iii)	**AO2/AO3 (2 marks)** Award 1 mark for identification of a pattern shown on the resource, and a further mark for a reason for this pattern, up to a maximum of 2 marks per idea. • Low levels of industrial water use (1) which means supplies are more suitable for population demand (1). • Presence of water sources such as the Nile in Egypt (1) which means there may be lower risk of water stress (1). • Climate of area is wet/rainfall is common (1) so areas along Equator have low stress/water security (1) • Climate of area is dry/arid (1) so areas in North of Africa has high stress/water insecurity (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
9(b)(iv)	**AO2/AO3 (2 marks)** Award 1 mark for identification of a way this pattern could affect human welfare, and a further mark for development, up to a maximum of 2 marks per idea. • Areas with high water stress may lead to people experiencing health conditions (1) caused by water scarcity / loss of crops (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
9(c)	**AO2 (2 marks)** Award 1 mark for identification of each suitable strategy. • (International/bilateral) aid (1) • Multi-lateral aid (1) • Intergovernmental agreements (1) • Fair trade (1)	

	• Debt relief (1) • Government policy/NGOs investment/SEZ/EPZ/trade (1) • Bottom-up strategy (1) • Top-down strategy (1) • Intermediate technology (1) • (Increased access to) education (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark

9(d)	**A01(2 marks)/AO2 (2 mark)**
	
	Award 1 mark for initial point about the HDI and measures of inequality, and further mark for further development, up to a maximum of 2 marks.
	
	• Human Development Index:
	  ○ The HDI is a composite index (1) which means it takes into account different indicators rather than just income (1).
	  ○ Includes several indicators (1) which take into account education and income (1).
	• Measures of inequality:
	  ○ Can take into account distribution of wealth (1) which may be a more suitable measure of development than just income which may not be distributed equally (1).
	  ○ Gini equality index (1) considers more than just how much money a country has (1).
	  ○ Corruption index (1) considers how fairly money has been managed in a country (1)
	
	Accept any other appropriate response.
		(4)

Question number	Indicative content
9(e)	**AO3 (3 marks)/AO4 (3 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: **AO3** • There are a range of factors that have led to uneven development between countries including social, historic and economic. • Whichever indicator is used there is significant differences in development globally.

	• GDP per capita ranges from US$127,046 per capita in Luxembourg, to as low as US4238 in Burundi. This demonstrates the scale of differences in economic development. • Historic trade ties between countries, a legacy of colonialism, the development of contemporary economic trade blocs lead to some countries being more engaged in the global economy, providing more opportunities for economic growth. • There are physical factors why some countries may not be as developed. There are some countries which are landlocked (e.g. Bhutan), which can restrict trade routes. **AO4** • Figure 9b shows how there are both physical and human factors that can affect global uneven development. • Figure 9b shows how physical factors that can affect uneven development include the presence of mountains and deserts, and the availability of natural resources. • Figure 9b shows how human factors that can affect uneven development include historic colonialism and trade relationships.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)

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Question number	Indicative content
9 (f)	**AO2 (4 marks), AO3 (4 marks), AO4 (4 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**

Question number	Indicative content
	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: **AO2** • There are various efforts to address the global development gap from international aid and intergovernmental agreements to smaller scale bottom-up development projects. • There are different views on how the development gap should be tackled from international organisations, governments, non-governmental-organisations (NGOs) and individuals. • The IMF has provided financial support many developing/emerging countries to help reduce the development gap. This has often been in the form of loans as well as policy advice. • The World Bank leads many activities which are designed to target the development gap including financing loans at various scales, developing strategies to target different aspects of development including economic development but also reducing equality. **AO3** • The patterns of global development are often linked to historical colonial ties which have a lasting legacy. This requires significant investment to address these differences. • More effective trade relationships have the potential to support greater economic development which may increase GDP but this would not necessarily improve broader human welfare. • While an improved economy may lead to improved human welfare through increased funding for healthcare and education for example this may be uneven within countries. • Efforts to improve economic development tend to be large scale top down projects, or financial arrangements through aid or trade, which does not necessarily improve the lives of people within the country directly. **AO4** • Figure 9a shows how there is significant variation in the predicted experience of water stress by 2040. • Figure 9a shows how there is no clear divide between developed and developing countries related to the experience of water stress. • Figure 9a shows how countries around the equator are expected to experience extremely high levels of water stress by 2040, with nearly all of the middle east, and much or north Africa, with the exception of Egypt. • Figure 9b shows how there are both physical and human factors that can affect global uneven development. • Figure 9b shows how physical factors that can affect uneven development include the presence of mountains and deserts, and the availability of natural resources. • Figure 9b shows how human factors that can affect uneven development include historic colonialism and trade relationships.

Question number	Indicative content	
Level	**Mark**	**Descriptor**
	0	No acceptable response.
Level 1	1–4	• Demonstrates isolated elements of understanding of concepts and the interrelationship between places, environments and processes. (AO2) • Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (A04)
Level 2	5–8	• Demonstrates elements of understanding of concepts and the interrelationship between places, environments and processes. (AO2) • Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	9–12	• Demonstrates accurate understanding of concepts and the interrelationship of places, environments and processes. (AO2) • Applies understanding to deconstruct information and provides logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

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