GradeMax



Mark Scheme (Results)

June 2025

Pearson Edexcel International GCSE In Geography (4GE1) Paper 2R 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)** A application of fertilisers (1) It cannot be B, C or D as these are not features of primary sector industries.	**(1)**

Question number	Answer	Mark
1(a)(ii)	**AO1 (1 mark)** Award 1 mark for a suitable factor. ● Access to water (1) ● Proximity to labour force/market (1). ● Good transport links for workers/transporting products (1). ● Availability of land (1) ● Availability of raw materials/coal/iron ore (1) Accept any other reasonable response.	**(1)**

Question number	Answer	Mark
1(b)	**AO1 (1 mark)** C changes in employment structure (1) It cannot be A (cause of climate changer), B (economic value) or D (focus on transport not employment)	**(1)**

Question number	Answer	Mark
1(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for a change identified from the figure (AO3) and a further 1 mark for extension through explanation (AO2), up to a maximum of 2 marks. ● Rise in tertiary & quaternary sector employment (1) as the economy moves to be service based rather than on products (1). ● Loss in primary sector jobs (1) due to mechanisation (1). ● Decrease in the secondary sector (1) due to global shift (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
1(d)	**AO1 (1 mark)** Award 1 mark for a suitable renewable energy example. ● Solar (1) ● Hydroelectric (1) ● Wind power (1) ● Wave (1) ● Biomass (1) Accept any other reasonable response.	**(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. ● Improve insulation (of roofs/walls) (1) to reduce heat loss /improve energy efficiency. (1) ● Replace windows with double glazing (1) to reduce energy lost through windows (1) ● Change from gas boiler to a heat pump (1) to reduce consumption of fossil fuels (1). ● Reducing thermostat (1) to reduce energy consumption (1). ● Installing solar panels (1) to reduce greenhouse gas emissions. 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. ● Air pollution (1) due to emissions from burning coal leading to smoke (1) which could create respiratory health issues (1). ● As a non-renewable energy resource (1) leads to increased carbon emissions (1) contributes to enhanced greenhouse effect (1). ● Smoke from chimneys (1) causes health issues (1) such as Asthma (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
1(g)	**AO2 (2+2 marks)** Award 1 mark for each suitable factor, and a further expansion mark, up to a maximum of 2 marks each. A range of developing or emerging country contexts may be chosen. ● Availability of natural resources (1) which can affect the levels of energy production (1). ● Energy infrastructure (1) which may not always be sufficient leading to loadshedding (1). ● Increased demand from a growing population (1) leads to greater imports / production of energy (1). ● Political instability/conflict (1) which can lead to disruption of energy production/can damage production facilities (1). Accept any other appropriate response.	**(4)**

Question number	Indicative content
1 (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** ● 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 publish 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 Esher 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.	
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
2(a)(i)	B coniferous vegetation (1) The answer cannot be A, C or D as these are not characteristics associated with boreal forests.	(1)

Question number	Answer	Mark
2(a)(ii)	**AO1 (1 mark)** Award 1 mark for suitable biome. ● Deserts (1) ● Tundra(1) ● Grasslands/ Savanna (1) ● Arctic Accept any other appropriate response.	(1)

Question number	Answer	Mark
2(b)	**AO1 (1 mark)** B opening a farm shop (1) The answer cannot be A, C or D as these are not farm diversification strategies. Accept any other appropriate responses.	(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 that intensive farming operates in this rural area. . ● Uniform rows of crops (1) used to maximise space in the field (1). ● Some crops are covered in sheets/plastic (1) suggesting they are being supported to maximise growth/reduce crop growth times (1). ● Many fields being used for different crops (1) showing how the land is being used to full capacity (1). ● There is a large area of land (1) this increases crop yield (1). Accept any other appropriate response.	(2)

Question number	Answer	Mark
2(d)	**AO1 (1 mark)** Award 1 mark for identification of a suitable characteristic. ● Low yield (1) ● Labour intensive (1) ● Low/no profits (1) ● Food to feed family/household (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: ○ Reduced use of chemical fertilisers/pesticides (1) so reduced eutrophication (1). ○ Less use of chemicals (1) seen as healthier by consumers (1) ○ Better welfare standards for animals (1) so more appealing to consumers (1). ○ Improve soil quality (1) to support long term sustainability (1). ● Disadvantage: ○ Lower yields (1) which means more land needed for production (1). ○ Higher costs (1) which means not accessible to all consumers (1). ○ Varied standards for different certifications (1) so difficult for consumers to understand what it means to be organic (1). ○ Crops take longer to grow (1) so have less harvest per year (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
2(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for each 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.	

	• NGOs can provide suitable technology/funding to support development of infrastructure in rural areas (1) this could be to provide off grid solar (1) so residents can have more reliable electricity supply (1). • They can coordinate efforts from the government (1) to deliver programmes to reduce poverty (1) such as provision of agricultural technology (1). • NGOs can build schools (1) this can help improve the access to education in the rural environment (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 developed countries could be chosen. For example: Portugal: • Increased effort to focus on tourism (1) to support growth in jobs as people move away from agriculture (1). • Development of lithium mines (1) leading to destruction of agricultural land (1). Accept any other appropriate response.	**(4)**

Question number	Indicative content
2 (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 various element to supporting the sustainability of living in rural areas including food and water, alongside housing conditions, education and employment opportunities. • Access to clean drinking water is a fundamental part of improving the sustainability of lives in rural areas. • Many rural populations in developing and emerging countries lack access to basic water supply and safe sanitation. This can have

	significant impacts on human health, as well as economic cost, which can lead to inequalities. ● Some rural populations rely on local water sources (wells, hand pumps, rivers) which may be contaminated. **AO4** ● Figure 2c shows how the proportion of people with access to piped water in village in China has grown between 1970-2018. ● Figure 2c shows how growth in piped water access increased from around 35% in 2000 to 80% by 2018. ● Figure 2c shows how access to piped water in villages in China was less than 10% in 1970. ● Figure 2c shows how access to piped water in villages in China had reached 35% by 2000 and 80% by 2018.

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
3(a)	**AO1 (1 mark)**	

	C increase in the proportion of people living in towns and cities (1) The answer cannot be A, B or D as these are not definitions of urbanisation.	**(1)**

Question number	Answer	Mark
3(b) (i)	**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/ increase in population (1) ● Perceptions of a better quality of life in cities (1) ● Government investment (1) ● Rapid Economic Development (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
3(b)(ii)	**AO1 (1 mark)** A competition for jobs (1) The answer cannot be B, C or D as these are not problems caused by rapid urbanisation.	**(1)**

Question number	Answer	Mark
3(c)	**AO2 (1 mark) / AO3 (1 mark)** Award 1 mark for suitable evidence (AO2) and a further 1 mark for extension using evidence from the resource (AO3), up to a maximum of 2 marks. ● High rise buildings (1) as these are often found in city centres due to shortage of land (1) ● High building density (1) due to city centre location (1). Accept any other appropriate response	**(2)**

Question number	Answer	Mark

3(d)	**AO1 (1 mark)** Award 1 mark for a suitable reason: • Lack of income/poverty (1) • Inequality (1) • Food deserts (1) • Unemployment (1) • No/little land to grow food on (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). • Transport links (1) making travelling longer distances quicker (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
3(f)	**AO1 (1 mark) / (AO3) 2 marks** Award 1 mark for an identification of reason and a further 2 marks for extension through explanation or description with references to the resource, up to a maximum of 3 marks. • Air pollution caused by congestion (1) can lead to respiratory health issues (1) which can increase pressure on health services (1). • There is a high economic impact of congestion (1) as people are delayed from getting to work (1) which leads to a reduction in sales (1). • New York has the highest economic losses (1) this can lead to workers sitting in traffic (1) causing a loss of productivity. (1) Accept any other appropriate response.	**(3)**

Question number	Answer	Mark

3(g)	**AO2 (4 marks)** Award 1 mark for basic advantages and disadvantages and an additional 1 mark for development through further explanation or exemplification. Maximum 2 marks for advantage and disadvantage. Advantage: ● Potentially cheaper to build on than some other sites (1) as existing infrastructure/utilities is already in place (1). ● Proximity to other existing businesses/labour (1) as they are usually located in urban areas (1). Disadvantage: ● May be more expensive if land is contaminated (1) which means work will be needed to clean the land first (1). ● Often little room for expansion (1) as built confines of existing urban infrastructure (1). Accept any other appropriate response.	**(4)**

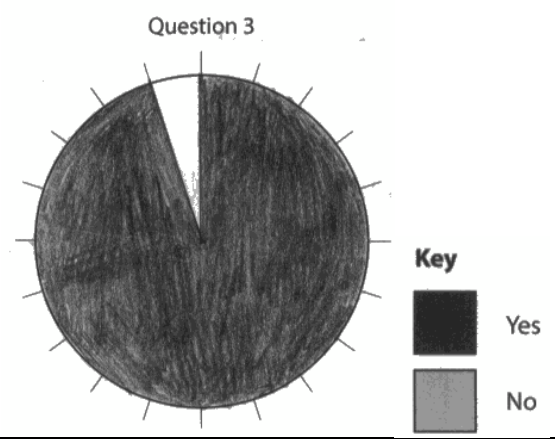
Question number	Indicative content
3 (h)	**AO3 (4 marks)/AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** The indicative content below 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 aimed at improving waste disposal in cities (such as city wide recycling and reuse schemes or national recycling incentives) can improve aspects of quality of life, such as reducing the amount of litter on the streets, and the amount of wate reaching landfill. 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 national. The effectiveness of these strategies depends on their objectives, funding, sustainability and feasibility for implementation. ● Without effective waste disposal facilities and programmes cities face a range of challenges including visual pollution, water pollution and the potential for greater health risks. **AO4**

	• Figure 3c shows strategies used to improve recycling and reduce disposable cups in the context of developed countries. • Figure 3c shows how a charging household in Australia may support reductions in the amount of waste. • Figure 3c shows how a coffee cup recycling scheme could reduce the 2.8 billion cups that are thrown away each year. • Figure 3c shows how schemes to improve different aspects of living in cities can take place at different scales and can be supported by individual actions.	
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 risk: ● Road safety (1) ● Weather conditions (1) ● Proximity to electricity pylon (1). ● Access rights (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
4(b)	**AO3 (1 mark)** Award 1 mark for any of the following: ● Environmental quality survey (1) ● Questionnaires (1) ● Photographs (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. ● Systematic 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 past by counting intervals (1). ● It is less biased than other options (1) as participants are chosen by a system rather than for a particular reason (1) which means data should be more accurate (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
4(d)(i)	**AO4 (2 marks)** Award 1 mark for accurate drawing of segments. Award 1 mark for accurate shading.  	**(2)**

Question number	Answer	Mark
4(d)(ii)	**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). Accept any other appropriate response.	**(2)**

Question Number	Answer	Mark
4(d)(iii)	**AO3 (1 mark)** Award 1 mark for another suitable presentation method: ● Bar graph (1) ● Histogram (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark

4(d)(iv)	**AO4 (2 marks)** Award 2 marks for correct answer. Award 1 mark for correct method to calculate the mean if the answer is not correct. 40 + 20 + 50 / 3 (1) 36.67 (accept 36.6/36.7/37) (1)	**(2)**

Question number	**Indicative content**	
4(e)	**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 quantitative data. ● Evaluation will most likely make links between the quantitative 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 conclusions. ● 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 quantitative 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 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.	
Level	**Mark**	**Descriptor**
	0	No acceptable response.

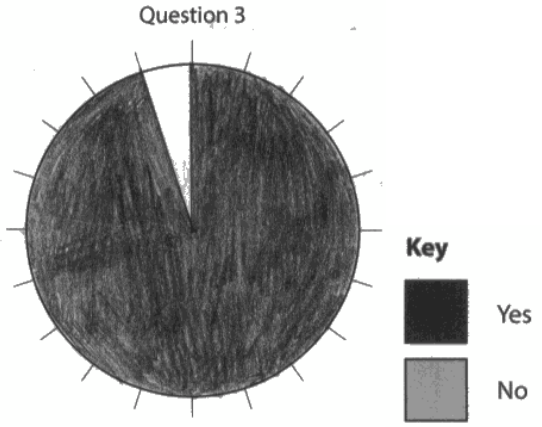
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported 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
5(a)	**AO3 (1 mark)** Award one mark for a suitable risk: • Road safety (1) • Weather conditions (1) • Proximity to electricity pylon (1). • Access rights (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(b)	**AO3 (1 mark)** Award 1 mark for any of the following: • Environmental quality survey (1) • Questionnaires (1) • Photographs (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. • Systematic 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 past by counting intervals (1). • It is less biased than other options (1) as participants are chosen by a system rather than for a particular reason (1) which means data should be more accurate (1). Accept any other appropriate response.	**(3)**

Question	Answer	Mark

number		
5(d)(i)	**AO4 (2 marks)** Award 1 mark for accurate drawing of segments. Award 1 mark for accurate shading.  	**(2)**

Question number	Answer	Mark

5(d)(ii)	**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).
	
	Accept any other appropriate response.
		(2)

Question Number	Answer	Mark
5(d)(iii)	**AO3 (1 mark)** Award 1 mark for another suitable presentation method: • Bar graph (1) • Histogram (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark

5(d)(iv)	**AO4 (2 marks)** Award 2 marks for correct answer. Award 1 mark for correct method to calculate the mean if the answer is not correct. 40 + 20 + 50 / 3 (1) 36.67 (accept 36.6/36.7/37) (1)	**(2)**

Question Number	**Indicative content**	
5(e)	**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 quantitative data. ● Evaluation will most likely make links between the quantitative 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 conclusions. ● 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 quantitative 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 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.	
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)

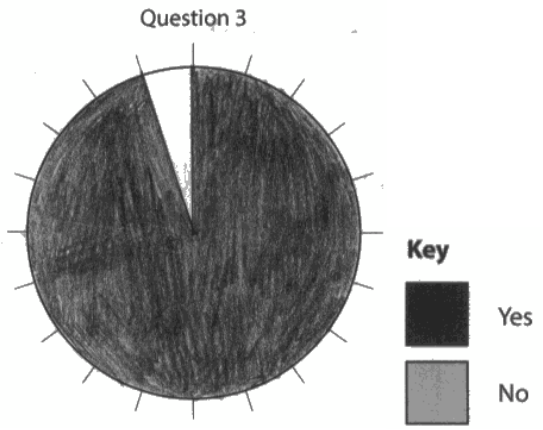
Question number	Answer	Mark
6(a)	**AO3 (1 mark)** Award one mark for a suitable risk:	

	• Road safety (1) • Weather conditions (1) • Proximity to electricity pylon (1). • Access rights (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
6(b)	**AO3 (1 mark)** Award 1 mark for any of the following: • Environmental quality survey (1) • Questionnaires (1) • Photographs (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. • Systematic 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 past by counting intervals (1). • It is less biased than other options (1) as participants are chosen by a system rather than for a particular reason (1) which means data should be more accurate (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark

6(d)(i)	**AO4 (2 marks)** Award 1 mark for accurate drawing of segments. Award 1 mark for accurate shading.  	**(2)**

Question number	Answer	Mark
6(d)(ii)	**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). Accept any other appropriate response.	**(2)**

Question Number	Answer	Mark
6(d)(iii)	**AO3 (1 mark)** Award 1 mark for another suitable presentation method: ● Bar graph (1) ● Histogram (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark

6(d)(iv)	**AO4 (2 marks)** Award 2 marks for correct answer. Award 1 mark for correct method to calculate the mean if the answer is not correct. 40 + 20 + 50 / 3 (1) 36.67 (accept 36.6/36.7/37) (1)	**(2)**

Question Number	**Indicative content**		
6(e)	**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 quantitative data. ● Evaluation will most likely make links between the quantitative 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 conclusions. ● 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 quantitative 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 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.		
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 cattle ranching (1) The answer cannot be B, C or D as these are not causes of deforestation.	**(1)**

Question number	Answer	Mark
7(a)(ii)	**AO1 (2 marks)** Award 1 mark for a suitable impact, up to a maximum of 2 marks. • Lack of roots to hold soil together (1) which leads to soil erosion (1) • Loss of vegetation cover (1) which leads to reduced habitat animals (1). • Reduced trees to absorb CO2 (1) which can lead to the increased enhanced greenhouse effect (1). • Less evapotranspiration (1) results in less precipitation (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
7(a)(iii)	**AO1 (1 mark)** D providing logging permits (1) The answer cannot be A, B or C as these are not strategies that would be used to manage deforestation.	**(1)**

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

Question number	Answer	Mark
7(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 or use of data, up to a maximum of 2 marks per idea. ● There is a lot of variation of risk in South America (1) with the western coast having the lowest risk (1). ● The highest risk is experienced in central and eastern countries of South America (1) with more than 1,000 fires per month (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
7(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 or use of data, up to a maximum of 2 marks per idea. ● Increased temperatures/climate change (1) which has meant some areas have longer dry conditions (1). ● Some areas may have greater water resources available to reduce the risk of wildfires (1) for example the UK has less than 500 wildfires per month (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 piece of evidence and a further mark for development, up to a maximum of 2 marks per idea. ● Temperature changes (1) to understand where the highest temperatures are being experienced (1). ● Data on extreme weather events (1) to understand if there is an increase in frequency due to climate change (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
7(c)	**AO2 (2 marks)**	

	Award 1 mark for identification of a human cause and 1 mark for a natural cause of climate change, up to a maximum of 2 marks. Human ● Cattle farming (1) ● Urbanisation (1) ● Vehicle emissions (1) Natural ● Solar variations (1) ● Milankovitch cycles (1) ● Volcanic eruptions (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
7(d)	**A01(2 marks)/AO2 (2 mark)** Award 1 mark for each government response provided, and further mark for further description which could include the use of data, up to a maximum of 2 marks. ● Commitment to international agreements (1) which aim to reduce overall country carbon emissions (1). ● Invest in green energy (1) to reduce CO2 emissions/ carbon footprint (1). ● To enable laws and regulations (1) to encourage businesses and individuals to reduce use of fossil fuels (1). ● Some governments have leaders who do not believe in climate change (1) leading to less participation in international agreements. Accept any other appropriate response.	**(4)**

Question number	Indicative content
7(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** ● 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. ● These causes are both human and climate related with the relative contribution depending on the specific context. In some cases land degradation has been caused by intensive agriculture/cattle farming which is exacerbated by climatic changes. **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.

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)

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

Question number	Indicative content
	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** ● Fragile environments such as rainforests, deserts and coral reefs are at risk of damage. A fragile environment is considered an area that is vulnerable to change and may struggle to recover from the changes. ● Rising global temperatures caused by climate change have the potential to have wide ranging impacts on fragile ecosystems. There are various scenarios for predicted change depending on emissions in the future. Optimistic scenarios predicted a warming of 1.5^{oC} by 2050. ● Rising global temperatures are likely to increase risk of desertification for areas of the globe, introducing desertification into some areas, and making it worse in others. This may also increase risk of wildfires. ● Climate change has a range of impacts (and potential future impacts) from temperature increases through to sea level rise. ● Other threats to fragile environments include deforestation, urbanisation, and the growth of mass tourism. **AO3** ● Climate change is likely to have more wide-ranging impacts on the globe than just other more specific threats such as deforestation. ● Global temperature changes as a result of climate change have the potential to contribute to sea level rise which many would argue poses a greater threat to fragile environments and extreme weather events which can be more localised. Many of the threats to fragile environments are interlinked. Deforestation is a contributor to climate change which in turn can increase the risk of wildfire which can damage more forested areas. **AO4** ● Figure 7a shows how there is significant variation of the global distribution of wildfires. ● Figure 7a shows how wildfire risk is significant for many countries across the word. ● Figure 7a shows how wildfire risks affect both developed and developing countries in the northern and southern hemisphere. ● 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)**	

	B increased government investment in tourism (1) The answer cannot be A, C or D as these are not reasons for the growth of mass tourism.	**(1)**

Question number	Answer	Mark
8(a)(ii)	**AO1 (1 mark)** A employment opportunities (1) The answer cannot be B, C or D as these are not positive impacts of mass tourism.	**(1)**

Question number	Answer	Mark
8(a)(iii)	**AO1 (2 marks)** Award 1 mark for each suitable action. ● Restricting the number of tourists (1) ● Tourist taxes (1) ● Employing local people (1) ● Using local materials (1) ● Ecotourism (1) ● Educating tourists/awareness campaigns (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
8(b) (i)	**AO3 (1 mark)** Award 1 mark for: ● China (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 description or use of data, up to a maximum of 2 marks per idea. ● Asia has many countries with a high number of emigrants (1) such as Afghanistan with 5-10 million. ● Central Asia has a lower number of emigrants (1) for example Mongolia with up to 100,000 (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 a reason for this pattern or use of data, up to a maximum of 2 marks per idea. • High numbers of emigrants from regions such as Asia (1) can lead to labour shortages (1). • High numbers of emigrants from countries such as India (1) may lead to significant remittances sent home (1). • People set up business with features of their home country (1) leading to cultural exchange (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
8(b)(iv)	**AO2/AO3 (2 marks)** Award 1 mark for an initial 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 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). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
8(c)	**AO2 (2 marks)** Award 1 mark for each suitable push factor. • Lack of employment opportunities (1).	

	• Lack of access to high quality education (1). • Poverty (1) • Low paid work (1) • Conflict (1) • Discrimination (1) • Natural Hazards (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
8(d)	**A01(2 marks)/AO2 (2 mark)** Award 1 mark for identification of an economic benefit, and further mark for explanation, up to a maximum of 2 marks. • Greater integration of economies (1) which means that more trade can take place increasing global trade levels (1). • Countries linked through global supply chains (1) which can increase jobs in many areas of the world (1). • Increased trade levels (1) which can lead to greater foreign direct investment (1). • Increase trade levels (1) means more income for the country (1) • The sharing of technology (1) leads to industrial growth. (1) • Travel is more accessible and affordable, (1) which means more tourists spend money in the local economy (1). Accept any other appropriate response.	**(4)**

Question number	Indicative content
8(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** • The World Trade Organisation was established in 1995 and was signed by 123 countries. Membership of the WTO has grown to 164 by 2024. • The WTO aimed to improve the welfare of people around the world but was designed to progressively reduce obstacles to trade.

	Although in some cases WTO rules support trade barriers (e.g. to protect the environment). ● The WTO is involved in activities which it claims can: cut living costs and raise living standards; settle disputes and reduce trade tensions; stimulate economic growth and employment; cut the cost of doing business internationally; encourage good governance; help countries develop; support the environment and health; and contribute to peace stability. ● WTO has been accused of being unfair to some countries (particularly developing countries). ● Members do not always agree on new trade rules which could restrict some parts of the global economy. **AO4** ● Figure 8b shows how the WTO has been operating since 1995. ● Figure 8b shows how there are a large number of countries involved in the WTO (164). ● Figure 8b shows how the WTO has a range of functions from managing trade agreements to monitoring national trade policies.

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)

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.

Question number	Indicative content
	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, foreign investment, aid, labour, modern transport and information technologies. ● Global trade of goods was around US$24.9 trillion, and services around USS 6.8 trillion in 2022. ● The level of trade and investment countries are involved in varies, and some countries rely on international aid (through IMF loans or similar) or international aid to support their economies. In 2022 around US$ 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. ● World Trade Organisation (WTO) is an international organisation that regulates international trade between countries. It coordinates trade negotiations, resolves disputes and oversees the implementation of trade agreements. By 2024 there are 164 member states which represent over 98% of global trade. The WTO is just one of several international trade blocs. ● The growth of the global economy has been driven by a range of factors including trade, foreign investment, aid, labour, modern transport and information technologies. ● Global trade of goods was around US$24.9 trillion, and services around USS 6.8 trillion in 2022. **AO3** ● 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 WTO has been shown to increase trade and reduce barriers by facilitating a range of trade agreements, this has more widely been linked by the UN as reducing global inequality. ● TNCs are an important component of the global economy as they facilitate investment in different areas, the employment of people and the growth of economies. ● 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 the numbers of emigrants. ● Figure 8 shows how much of Asia has high number of emigrants compared to Africa and South America. ● Figure 8 a shows how Africa has many countries with less than 5 million emigrants.

Question number	Indicative content	
	● Figure 8b shows how the WTO has been operating since 1995. ● Figure 8b shows how there are a large number of countries involved in the WTO (164). ● Figure 8 b shows how the WTO has a range of function from administering trade agreements to monitoring national trade policies.	
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)** D Sweden – HDI score – 0.947	**(1)**

	It cannot be A, B, or C as these have a lower Human Development Index Score.	

Question number	Answer	Mark
9(a)(ii)	**AO1 (2 marks)** Award 1 mark for each suitable factor, up to a maximum of 2 marks. • Healthcare/ Hospitals (1) • Food security/ Malnutrition/ Poor Diet (1) • Education (1) • Vaccination rates (1) • Fertility Rate/ Birth Rate (1) • Clean Water (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
9(a)(iii)	**AO1 (1 marks)** D Gini Equality Index (1) The answer cannot be A, B or C as these are not indicators to measure inequality. A (carbon), B (environmental damage), or (trade).	**(1)**

Question number	Answer	Mark
9(b) (i)	**AO3 (1 mark)** Award 1 mark for the following answer. • Madagascar (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 or use of data, up to a maximum of 2 marks per idea.	

	• North America has generally high levels of food security (1) with USA/Canada with a score 81-100 (1). • Northern North America seems to have the highest food security (1) whereas more southern countries are slightly lower with a score of 50-70 (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 or use of data, up to a maximum of 2 marks per idea. • Higher income countries have options to secure food sources (1) which increases their food security across many of the elements included in the index (1). • Reduced crop yields in some countries (1) may lead to greater experiences of food insecurity as there will be less food available which may increase prices (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 simple idea, and a further mark for development or explanation, up to a maximum of 2 marks per idea. • High food insecurity can lead to health issues (1) such as malnutrition if people do not have access to a varied diet (1). • Poor access to food can affect other aspects of life (1) such as the ability to go to school/work (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
9(c)	**AO2 (2 marks)** Award 1 mark for identification of each suitable organisation. • United Nations (1) • World Health Organisation (1) • Food and Agriculture Organisation (1)	

	• World Food Programme (1) • International Monetary Fund (1) • World Bank (1) Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
9(d)	**A01(2 marks)/AO2 (2 mark)** Award 1 mark each reason identified, and further mark for further development, up to maximum 2 marks for each reason. ○ Longer life expectancy/greater proportion of older people (1) as access to health care improves (1). ○ Generally younger age groups become smaller (1) as people start families later/greater access to contraception (1). ○ Women focus on their careers (1) so have fewer children (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 within countries including social, historic and economic but can also be categorised into human and physical. • Whichever indicator is used there are significant differences in how development varies within countries globally. • There are physical factors why some areas may not be as developed. High mountain ranges prevent as much development of transport infrastructure. Typically many countries have developed settlements along river courses. • Areas rich in natural resources (such as energy sources or fertile soil) have developed settlements more rapidly which is where investment has been concentrated. • Areas closer to the coast have developed as points of access for trade (e.g. coastal cities in China).

	• **AO4** • Figure 9b shows how there are both physical and human factors that can affect uneven development within countries. • 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 employment opportunities and education.

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)

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** 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 ways to tackle the development gap including top down and bottom up projects.

Question number	Indicative content
	● Different factors contribute to the development of a country / region: cultural, technological, social, economic as well as wider measures such as stability and water availability. ● International aid is given to countries (sometimes via grants or loans) to support development which could be through investment infrastructure, industry or a specific sector, or to contribute to debt relief. This is often coordinated through organisations such as the World Bank or IMF as part of international collaborations, but can also be between countries. ● While top down development approaches focus on the actions of governments and international organisations, bottom up approaches tend to be smaller in scale and involve local communities and organisations. **AO3** ● Top down projects often led by international agencies or government organisations often focus on economic investment/debt, large scale infrastructure or systems that can help foster economic development with the benefits trickling down through regions to local people. These are not always the most appropriate methods for tackling the development gap. ● E.g. The Nigeria Coastal railway designed to link up major cities and settlements near the coast, and encourage development in the delta. ● Bottom-up development projects usually involve more grassroots based approaches, focusing on helping people improve their lives. This often involves NGOS and individuals and can include providing financial support (but on a small scale), technical expertise or equipment needed. ● E.g. Water aid in Kenya provides appropriate technology to improve access to safe drinking water in local communities. ● A focus on education can lead to an increase in skilled workers who can obtain jobs with higher wages. This can lead to increased quality of life. **AO4** ● Figure 9a shows how there is significant variation in the global food security index in 2022. ● Figure 9a shows how there is no clear divide between developed and developing countries relating to food security, although much of central Africa has low index scores. ● Figure 9a shows how the highest food security index scores are experienced in North America, Europe, east Asia and Australia/New Zealand, with index scores above 70. ● Figure 9b shows how there are both physical and human factors that can affect uneven development within countries. ● 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 employment opportunities and education.

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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