



Mark Scheme (Results)

Summer 2024

Pearson Edexcel International GCSE
In Geography (4WGE2)
Paper 1R: Human Geography

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Summer 2024

Question Paper Log Number P80202A

Publications Code 4WGE2_01R_2406_MS

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General Marking Guidance

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

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) D unregulated workplaces (1) The answer cannot be A, B or C as these are not characteristics of informal employment.	(1)

Question number	Answer	Mark
1(a)(ii)	AO1 (1 mark) Award 1 mark for a suitable informal sector employment: • rickshaw driver (1) • waste picker (1) • cleaner (1) • shoe shining (1) • textile worker/factory worker (1) • street food sellers/market stall seller (1) Accept any other appropriate response.	(1)

Question number	Answer	Mark
1(b)	AO1 (1 mark) D quaternary (1) It cannot be A, B or C as these are not the correct sector for a research scientist to be located.	(1)

Question number	Answer	Mark
1(c)	A02 (1 mark) / A03 (1 mark) Award 1 mark for basic evidence from the from the figure (A03) and a further 1 mark for extension through explanation (A02), up to a maximum of 2 marks. - Cars are being produced (1) and secondary sector involves the production of manufactured goods (1). Car manufacturing (1) involves the conversion of raw materials to manufactured goods (1). Secondary sector involves manufacturing (1) and the figure shows cars being produced (1). - Machinery involved in production (1) showing manufacturing which is a core activity of the secondary sector (1). - Few workers present (1) as a lot of work in secondary sector is completed by machines (1). Accept any other appropriate response.	(2)

Question number	Answer	Mark
1(d)	A01 (1 mark) Award 1 mark for a suitable reason. - Deindustrialisation (1) - Mechanisation/increase technology (1) - Population growth (1) - Change in demand for services (1). - Increased education (1). - Increase in disposable income (1) - Country development (1) - Urbanisation (1) - Investment by government/government policy (1) Accept any other reasonable response.	(1)

Question number	Answer	Mark
1(e)	AO2 (2+2 marks) Award 1 mark for a suitable positive and negative impact and a further expansion mark, up to a maximum of 2 marks each. Maximum 2 marks for the positive or negative impact. Range of developed countries may be used. Shift to tertiary or quaternary sector will usually be used as context. Positive: • Greater employment from tertiary jobs/services (1) which leads to higher income (1) • Greater employment in quaternary sector (1) due to increased innovation/increased availability of technology (1) Negative: • Decrease in primary/secondary (1) means imported goods so loss of jobs (1) • Deindustrialisation (1) unemployment/negative economic multiplier/spiral of decline (1) Accept any other appropriate response.	(4)

Question number	Answer	Mark
1(f)	AO1 (1 mark) / (AO3) 2 marks Award 1 mark (AO1) for reference to the level of investment shown in figure, and a further 2 marks (AO3) for extension with possible reference to the resource, up to a maximum of 3 marks. • Greater investment in renewable energy to increase energy security (1) and reduce reliance on fossil fuels (1) to reduce carbon emissions (1). • Increase in investment in electric vehicles to reduce use of petrol engine vehicles (1) to reduce carbon emissions (1) to mitigate against climate change (1). • Consistent levels of investment in low carbon fuels because they are expensive (1) and it is more cost efficient to invest in renewable power (1) which means more energy can be produced (1). • Increased in renewable energy resources (1) from around US\$300 to 450 billion (1) due to countries trying to meet requires of international agreements on carbon emissions (e.g. Paris Agreement) (1). • Increased investment overall (1) due to increased development of countries (1) which requires more energy resources (1). Accept any other appropriate response.	(3)

Question number	Answer	Mark
1(g)	AO2 (2+2 marks) Award 1 mark for an advantage and for a disadvantage of using biomass and a further expansion mark, up to a maximum of 2 marks each. Advantage: • Can be made from a range of crops including oilseeds/wheat/sugar (1) so can reduce use of fossil fuels (1). • They can be blended with other fuels such as petrol/diesel (1) so can be used to reduce oil consumption (1). Disadvantage • Increased land needed to produce the biofuels (1) which takes away land being used for food/can reduce food security (1). • The process to manufacture biofuels requires a lot of energy (1) which still creates large CO₂ emissions (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 • Rising global population has been accompanied by a rise in energy consumption, however the patterns of consumption differ globally. The world's population grew from around 6 billion in 1999 to 7 billion by 2011 and 8 billion by 2023. • The level of development can also affect the demand for energy. • While energy demand has grown significantly for developed countries over the last 100 years, more recent rapid growth is typically experienced by developing and emerging countries. • Industrialisation in developing and emerging economies has led to increased demand for energy but also growth in wealth and technology. • Rapid growth in the demand for energy is fuelled by a combination of population growth and increased industrialisation.

	AO4 - Figure 1c shows increased consumption of energy from 1990-2022 across Asia, North America and Africa. - Figure 1c how energy consumption in Asia has risen from around 25,000TWh to around 90,000 TWh. - Figure 1c shows how North American has risen slightly over the time period but generally stable around 32,000TWh. - Figure 1c shows how Africa has significantly lower energy consumption rising from around 3,000 to 6,000TWh.	
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)	AO1 (1 mark) C benefits to humans provided by the natural environment (1) The answer cannot be A, B or D as these are not definitions of an ecosystem service.	(1)

Question number	Answer	Mark
2(a)(ii)	AO1 (1 mark) Award 1 mark for suitable type of goods produced by an ecosystem. • Timber/wood/firewood • Paper • Medicine • Food • Rubber Accept any other appropriate responses.	(1)

Question number	Answer	Mark
2(b)	AO2/AO3 (2 marks) Award 1 mark for identification of characteristics of a specific biome, and a further mark for description or development. The response must relate to one of the biomes shown in Figure 2a. The characteristics may refer to the climate or the flora/fauna that can be found there. • Tropical rainforest: high density forests (1) with high annual rainfall (1) • Desert: high temperatures (1) which only supports plants like cacti (1). • Tundra: cold environments (1) due to high altitude (1) • Temperate forests: regular rainfall (1) that support the growth of trees (1). • Accept any other appropriate response.	(2)

Question number	Answer	Mark
2(c)	AO1 (1 mark) D farming that is dependent on animals (1). The answer cannot be A, B or C as these are not definitions of pastoral farming.	(1)

Question number	Answer	Mark
2(d)	AO1 (1 mark) Award 1 mark for a suitable way provided. • Water pollution/contamination/eutrophication (1) • Deforestation (1) • Soil erosion (1) • Provides employment (1) • Lack of soil fertility/damage soil (1) • Overgrazing/overcultivation (1) • Desertification (1) • Increased productivity/output (1) • Accept any other appropriate response.	(1)

Question number	Answer	Mark
2(e)	AO2 (2+2 marks) Award 1 mark for identification of an impact, and a further expansion mark, up to a maximum of 2 marks each. • Can lead to loss of services (1) need to travel to access necessary services/which can lead to a negative multiplier effect/spiral of decline (1). • Can lead to population decline in rural areas (1) as people seek to move away to be closer to services (1). • Increase in unemployment (1) as businesses close and new ones do not replace them (1). • Poverty/deprivation (1) as lack of access to jobs/services/shops (1). Accept any other appropriate response.	(4)

Question number	Answer	Mark
2(f)	A01 (1 mark) / (A03) 2 marks Award 1 mark for an identification of way investment in rural environments can improve quality of life, a further 2 marks for extension through explanation with reference to the resource, up to a maximum of 3 marks. - Increased investment in rural transportation can ensure people can still access goods and services (1) which can prevent rural decline (1) and support livelihoods (1). - Investment in schools ensures that rural populations can maintain their education (1) which means they are more likely to be in employment later in life (1) which reduces chance of poverty (1). - Investment in cultural activities may lead to increased tourism (1) which could create more jobs for local people (1) which could improve household incomes (1). - Investment of 5.6% in clean water could increase availability of water (1) which could be used for irrigation (1) to increase agricultural output (1). Accept any other appropriate response.	(3)

Question number	Answer	Mark
2(g)	A02 (4 marks) Award 1 mark for initial explanation of how rural-urban migration has affected rural areas, 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. - High levels of rural-urban migration to the growing cities have left many surrounding rural areas with less working age adults (1) which means agricultural production is reduced (1). - With increased populations in the cities less investment for some services takes place in rural areas (1) which means some remote rural areas may find it difficult to access healthcare services (1). - Negative multiplier effect (1) due to loss of younger workers (1). - Less pressure on services/food supplies (1) due to smaller population (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 • Farm diversification provides the opportunity to develop other income streams. • Some farms adopt several diversification strategies because one on it's own is not always sustainable. • Producing crops alone may not be enough to be financially sustainable, particular when some crops can be imported cheaply from other countries. • Many farms move to diversification in order to counter reduction in profit from more traditional income streams such as crop and livestock production. • In the UK (and many other developed countries) the number and size of farms has been reducing for several reasons: changing economy, changes in funding, changes in land available for farming, shifts to tertiary/quaternary sector. AO4 • Figure 2c shows how a large proportion of businesses are diversifying into non farming areas (48%). • Figure 2c shows how farmers expect to make significant changes in the next 3-5 years. • Figure 2c shows how there are still plans for positive change including increased productivity and business growth. • Figure 2c shows how 10% of farmers expect to leave farming (or pass to the next generation).	
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) (i)	AO1 (1 mark) C - government investment (1) The answer cannot be A, B or D as they are not factors that can encourage the development of megacities.	(1)

Question number	Answer	Mark
3(a)(ii)	AO1 (1 mark) Award 1 mark for any suitable definition. • The movement of people to the edge of urban areas (1) • The growth of urban areas/cities at the edges (1) Accept any other appropriate response.	(1)

Question number	Answer	Mark
3(b)	AO1 (1 mark) C – existing roads and electricity present (1) The answer cannot be A, B or D as these are not reasons for building on a brownfield site.	(1)

Question number	Answer	Mark
3(c)	AO2 (1 mark) / AO3 (1 mark) Award 1 mark for basic evidence from the resource (AO3) and a further 1 mark for extension through explanation (AO2), up to a maximum of 2 marks. • Accessibility (1) as there are clear access by road (or by river) (1). • High density buildings (1) suitable for commercial office blocks (1). • Land value (1) which favours commercial / business land uses (1). • Evidence of piers/waterside/port (1) which allows access by boat/transporting goods by boat (1). • Limited space (1) which has driven the need for high-rise housing (1). • Limited green space (1) due to rapid urbanisation (1). • Green spaces (1) used for leisure (1). Accept any other appropriate response	(2)

Question number	Answer	Mark
3(d)	AO1 (1 mark) Award 1 mark for a suitable source of air pollution. • Cars / vehicles/ lorries/ traffic /trains (1) • Factories (1) • Construction (1) • Wood burners (1) • Burning fossil fuels/power plants (1) Accept any other appropriate response.	(1)

Question number	Answer	Mark
3(e)	AO2 (2+2 marks) Award 1 mark for an initial challenge, with a further mark for expansion, up to a maximum of 2 marks each. • Shortages of energy/food/housing (1) due to rapid urbanisation/increased population growth (1). • Loadshedding (1) due to demand for electricity outstripping supply (1). • Increased carbon emissions (1) due to high levels of transport used (1). • Waste disposal (1) being able to find enough space for landfill/to be able to collect rubbish effectively (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 the pattern shown and a further 2 marks for extension through explanation or description, up to a maximum of 3 marks. • There are high levels of informal employment in the African countries shown (1) which may have been caused by rapid rural-urban migration (1) which may have been faster than the growth in jobs (1). • Between 63-86% of employment in the African cities shown was informal (1) this may be due to lack of education of some of the people who moved to the city (1) which meant they could not access formal employment (1). Accept any other appropriate response.	(3)

Question number	Answer	Mark
3(g)	A02 (4 marks) Award 1 mark for initial idea and an additional 1 mark for development through further explanation or exemplification. A range of countries and examples could be chosen. ○ Improve public transport (1) to reduce congestion and improve accessibility (1). ○ Congestion charges (in cities like London) (1) to improve air quality/plants remove more CO₂ (1). ○ Increasing green spaces/recreational areas (such as the High line in New York) (1) to improve mental wellbeing (1). ○ Introducing affordable home schemes (1) so people can afford to live in cities and not commute such long distances (1). ○ Increase taxes(1) to pay for healthcare/waste collection (1). Accept any other appropriate response.	(4)

Question number	Indicative content
3 (h)	A03 (4 marks)/A04 (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: A03 • More than half the world's population lives in urban areas. By 2050 it is predicted that more than two thirds of the world's population will live in urban areas. • For some areas of the world that have already gone through industrialisation and shifts to tertiary and quaternary sectors, rapid urbanisation took place decades ago. • Many developed countries such as those in North America, have seen the rate of urbanisation slow down, and experience counter-urbanisation. • Many developing or emerging economies that are undergoing industrialisation are experiencing more rapid urbanisation, in part due to the development of their economy and the associated rural-urban migration.

	AO4 - Figure 3c shows how urban growth rates have differed between Africa and North America. - Figure 3c shows how North America was over 50% of population in urban areas already by 1950. - Figure 3c shows how Africa is undergoing rapid urbanisation, but has not yet reached 50% urban, around 40% by 2020. Figure 3c shows how the rate of increase in urban population in North America is lower than Africa between 1950-2020.	
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)	A03 (1 mark) Award one mark for a suitable type of sampling. • Random (1) • Stratified (1) • Systematic (1) • Opportunistic (1) Accept any other appropriate response.	(1)

Question number	Answer	Mark
4(b)	A04 (2 marks) Award 1 mark for initial point, and a further mark for explanation, up to a maximum of 2 marks. The risks managed will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: economic activity and energy. • We crossed the road safely (1) to avoid getting hit by cars/bikes/buses (1). • Conducted a risk assessment before travelling to fieldwork site (1) to ensure we were aware of risks we could face (1). • Provided team members with phone numbers (1) so we could regroup if we got lost (1). • Wore suncream/lots of layers (1) to avoid sunburn/avoid hypothermia (1). • We stayed in our group/took a map/took our phone (1) to avoid getting lost (1). • Carried water supplies (1) to avoid dehydration (1). Accept any other appropriate response.	(2)

Question number	Answer	Mark
4(c)(i)	A03 (2 marks) Award 1 mark for initial point, and a further mark for explanation, up to a maximum of 2 marks. The equipment used will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: economic activity and energy. • Mobile phone (1) to plot data on a map/take photos (1). • Questionnaire (1) to gather views from local people (1). • Sound meter (1) to explore changes in noise around the area (1). • Stopwatch (1) for timing a minute to count pedestrians (1). • Pencil (1) to draw annotated field sketches/diagrams (1). Accept any other appropriate response.	(2)

Question number	Answer	Mark
4(c)(ii)	A03 (4 marks) Award 1 mark for each advantage and disadvantage, and a further mark for explanation, up to a maximum of 2 marks for each. The data collection methods used will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: economic activity and energy. Advantages: • Survey was a quick way of collecting data (1) which meant we could collect a bigger sample (1). • Taking photographs provided an accurate visual record of the area (1) which meant I could refer back to them when doing the data analysis (1). • Environmental quality surveys create quantitative data (1) which makes easy to compare (1). Disadvantages: • People didn't want to fill in our surveys (1) which meant we had a small sample (1). • Photographs do not capture the sounds and smells of the sites (1) so cannot be used to recollect all details about the environmental quality of the area (1). • Environmental quality surveys are subjective (1) so different people may get different data about the same site (1). Accept any other appropriate response.	(4)

Question number	Answer	Mark
4(d)	A03 (3 marks) Award 1 mark for an initial point, and further 2 marks for explanation. • I took photographs as well as field sketches (1) to make sure I did not miss any details (1) this meant I could refer to these images when analysing the data (1). • I chose several sites around the area (1) to make sure that I collected data from a range of people (1) to try and get a representative sample of people (1). Accept any other appropriate response.	(3)

Question number	Indicative content
4(e)	A03 (4 marks)/A04 (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: A03 • Evaluation is likely to be linked to the data presentation methods used and how these linked to the aims for the enquiry. • Evaluation will most likely be linked to how effective the data presentation methods are for displaying the chosen data, and the level of detail provided in these data presentation methods. • Recognition of the extent to which aim could be met with the chosen data presentation methods. • A supported judgement should be reached about the suitability and quality of the data presentation methods, such as the strength and weaknesses of these methods, using relevant examples from the figures provided. A04 • Figure 4a shows a bar graph of total environmental quality scores but does not show what elements were used to create this total score. • Figure 4a is accurately labelled axis and has a title. • Figure 4b is a pie chart where it is easy to see the proportions of how people responded. • Figure 4b does not have any percentage labels so it is difficult to know the exact percentages. • Figure 4b shows there are overlaps on the categories of distances recorded.

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)	A03 (1 mark) Award one mark for a suitable type of sampling. • Random (1) • Stratified (1) • Systematic (1) • Opportunistic (1) Accept any other appropriate response.	(1)

Question number	Answer	Mark
5(b)	A04 (2 marks) Award 1 mark for initial point, and a further mark for explanation, up to a maximum of 2 marks. The risks managed will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. • We crossed the road safely (1) to avoid getting hit by cars/bikes/buses (1). • Conducted a risk assessment before travelling to fieldwork site (1) to ensure we were aware of risks we could face (1). • Provided team members with phone numbers (1) so we could regroup if we got lost (1). • Wore suncream/lots of layers (1) to avoid sunburn/avoid hypothermia (1). • We stayed in our group/took a map/took our phone (1) to avoid getting lost (1). • Carried water supplies (1) to avoid dehydration (1). Accept any other appropriate response.	(2)

Question number	Answer	Mark
5(c)(i)	A03 (2 marks) Award 1 mark for initial point, and a further mark for explanation, up to a maximum of 2 marks. The equipment used will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. • Mobile phone (1) to plot data on a map/take photos (1). • Questionnaire (1) to gather views from local people (1). • Sound meter (1) to explore changes in noise around the area (1). • Stopwatch (1) for timing a minute to count pedestrians (1). • Pencil (1) to draw annotated field sketches/diagrams (1). Accept any other appropriate response.	(2)

Question number	Answer	Mark
5(c) (ii)	A03 (4 marks) Award 1 mark for each advantage and disadvantage, and a further mark for explanation, up to a maximum of 2 marks for each. The data collection methods used will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: rural environments. Advantages: • Survey was a quick way of collecting data (1) which meant we could collect a bigger sample (1). • Taking photographs provided an accurate visual record of the area (1) which meant I could refer back to them when doing the data analysis (1). • Environmental quality surveys create quantitative data (1) which makes easy to compare (1). Disadvantages: • People didn't want to fill in our surveys (1) which meant we had a small sample (1). • Photographs do not capture the sounds and smells of the sites (1) so cannot be used to recollect all details about the environmental quality of the area (1). • Environmental quality surveys are subjective (1) so different people may get different data about the same site (1). Accept any other appropriate response.	(4)

Question number	Answer	Mark
5(d)	A03 (3 marks) Award 1 mark for an initial point, and further 2 marks for explanation. - I took photographs as well as field sketches (1) to make sure I did not miss any details (1) this meant I could refer to these images when analysing the data (1). - I chose several sites around the area (1) to make sure that I collected data from a range of people (1) to try and get a representative sample of people (1). Accept any other appropriate response.	(3)

Question number	Indicative content
5(e)	A03 (4 marks)/A04 (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: A03 - Evaluation is likely to be linked to the data presentation methods used and how these linked to the aims for the enquiry. - Evaluation will most likely be linked to how effective the data presentation methods are for displaying the chosen data, and the level of detail provided in these data presentation methods. - Recognition of the extent to which aim could be met with the chosen data presentation methods. - A supported judgement should be reached about the suitability and quality of the data presentation methods, such as the strength and weaknesses of these methods, using relevant examples from the figures provided. A04 - Figure 5a shows a bar graph of total environmental quality scores, but does not show what elements were used to create this total score. - Figure 5a is accurately labelled axis and has a title. - Figure 5b is a pie chart where it is easy to see the proportions of how people responded.

		• Figure 5b does not have any percentage labels so it is difficult to know the exact percentages. • Figure 5b shows there are overlaps on the categories of distances recorded.
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 type of sampling. • Random (1) • Stratified (1) • Systematic (1) • Opportunistic (1) Accept any other appropriate response.	(1)

Question number	Answer	Mark
6(b)	AO4 (2 marks) Award 1 mark for initial point, and a further mark for explanation, up to a maximum of 2 marks. The risks managed will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: urban environments. • We crossed the road safely (1) to avoid getting hit by cars/bikes/buses (1). • Conducted a risk assessment before travelling to fieldwork site (1) to ensure we were aware of risks we could face (1). • Provided team members with phone numbers (1) so we could regroup if we got lost (1). • Wore suncream/lots of layers (1) to avoid sunburn/avoid hypothermia (1). • We stayed in our group/took a map/took our phone (1) to avoid getting lost (1). • Carried water supplies (1) to avoid dehydration (1). Accept any other appropriate response.	(2)

Question number	Answer	Mark
6(c)(i)	A03 (2 marks) Award 1 mark for initial point, and a further mark for explanation, up to a maximum of 2 marks. The equipment used will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: urban environments. • Mobile phone (1) to plot data on a map/take photos (1). • Questionnaire (1) to gather views from local people (1). • Sound meter (1) to explore changes in noise around the city (1). • Stopwatch (1) for timing a minute to count the cars (1). • Pencil (1) to draw annotated field sketches/diagrams (1). Accept any other appropriate response.	(2)

Question number	Answer	Mark
6(c) (ii)	A03 (4 marks) Award 1 mark for each advantage and disadvantage, and a further mark for explanation, up to a maximum of 2 marks for each. The data collection methods used will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: urban environments. Advantages: • Survey was a quick way of collecting data (1) which meant we could collect a bigger sample (1). • Taking photographs provided an accurate visual record of the area (1) which meant I could refer back to them when doing the data analysis (1). • Environmental quality surveys create quantitative data (1) which makes easy to compare (1). Disadvantages: • People didn't want to fill in our surveys (1) which meant we had a small sample (1). • Photographs do not capture the sounds and smells of the sites (1) so cannot be used to recollect all details about the environmental quality of the area (1). • Environmental quality surveys are subjective (1) so different people may get different data about the same site (1). Accept any other appropriate response.	(4)

Question number	Answer	Mark
6(d)	A03 (3 marks) Award 1 mark for an initial point, and further 2 marks for explanation. • I took photographs as well as field sketches (1) to make sure I did not miss any details (1) this meant I could refer to these images when analysing the data (1). • I chose several sites around the area (1) to make sure that I collected data from a range of people (1) to try and get a representative sample of people (1). Accept any other appropriate response.	(3)

Question number	Indicative content
6(e)	A03 (4 marks)/A04 (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: A03 • Evaluation is likely to be linked to the data presentation methods used and how these linked to the aims for the enquiry. • Evaluation will most likely be linked to how effective the data presentation methods are for displaying the chosen data, and the level of detail provided in these data presentation methods. • Recognition of the extent to which aim could be met with the chosen data presentation methods. • A supported judgement should be reached about the suitability and quality of the data presentation methods, such as the strength and weaknesses of these methods, using relevant examples from the figures provided. A04 • Figure 6a shows a bar graph of total environmental quality scores, but does not show what elements were used to create this total score. • Figure 6a is accurately labelled axis and has a title.

		• Figure 6b is a pie chart where it is easy to see the proportions of how people responded. • Figure 6b does not have any percentage labels so it is difficult to know the exact percentages. • Figure 6b shows there are overlaps on the categories of distances recorded.
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)	AO1 (1 mark) Award 1 mark for a suitable location of a fragile environment: • Amazon (rainforest) (1) • Sahara/Sahel (desert) (1) • Great barrier reef (1) Accept any other appropriate response. This could be a specific local region or a larger region such as the Amazon. Do not accept just the name of the fragile environment.	(1)

Question number	Answer	Mark
7(b)(i)	AO1 (1 mark) C soil erosion (1) The answer cannot be A, B or D as these are all causes of desertification.	(1)

Question number	Answer	Mark
7(b)(ii)	AO1 (1 mark) C water spreading weirs (1) The answer cannot be A, B or D as these are not strategies that can be used to reduce the risk of desertification.	(1)

Question number	Answer	Mark
7(c)(i)	A03 (2 marks) Award 1 mark each of the following answers. • Nicaragua (1) • Egypt (1)	(2)

Question number	Answer	Mark
7(c)(ii)	AO2/AO3 (4 marks) Award 1 mark for pattern identified, and a further mark for explanation of the reason, up to a maximum of 2 marks per idea. • Most of Europe is experiencing increases in forest cover (1) as many governments seeking to plant more trees to combat rising CO2 emissions (1). • Many African and South American Countries are experiencing loss of 0 to -2% (1) as trees are an important natural commodity that can support their economies (1). • Large amount of LICs have loss (1) due to rising populations/need to clear forest for farmland (1). • Many HICs have a gain in forest (1) as government encourage afforestation (1). Accept any other appropriate response.	(4)

Question number	Answer	Mark
7(d)	AO1/AO2 (4 marks) Award 1 mark for identification of a suitable approach, and a further mark for an explanation or development, up to a maximum of 2 marks. • Requirement for logging permits (1) to reduce illegal logging (1). • Legal protection of some areas/creation of national parks/nature reserve (1) to try and reduce the rates of deforestation (1). • Monitoring of activities in forest areas/enforcing regulations (1) to try and catch illegal loggers (1). • Eat less meat (1) to reduce the demand for livestock that is contributing to rainforest clearance (1). • Afforestation schemes (1) to replace trees lost by logging (1). Accept any other appropriate response.	(4)

Question number	Answer	Mark
7(e)(i)	A04 2 marks Award 1 mark for the correct method, and 1 mark for the correct answer. • 145-16 (1) Larger number – small number • 129 (1) Accept answers that answers that range from 126-32.	(2)
Question number	Answer	Mark
7(e)(ii)	A02 (1 mark) / A03 1 mark Award 1 mark for initial point, and further mark for further description which could include the use of data, up to a maximum of 2 marks. • Rise in sea level (1) 215 mm (1) • General rising trend (1) but with some fluctuations between years (1). • Sea level increases (1) from around 0mm to 215mm (1) Accept any other appropriate response.	(2)

Question number	Indicative content
7(f)	A03 (3 marks)/A04 (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: A03 • The potential impacts of climate change are wide ranging. While some of the most discussed impacts are increased temperatures related to global warming, and rising sea levels due to melting of the ice caps there are many more which have potential to impact the environment, people and economies. • Climate change, linked with changes in temperatures but also differences in extreme weather events can mean that the ability to grow some crops is becoming more challenging. This creates issues

	of food security but also creates problems for ensuring secure livelihoods. • It is estimate there could be 1.2 billion climate refugees by 2050, with many being forced to move from coastal areas that experience flooding, or more hazardous weather events (from flooding to wildfires). • Many of these impacts are interrelated, the increased flooding can link to food insecurity, the changing growing seasons links to food insecurity. Depending on the location on the planet, the severity of these potential impacts will differ. AO4 • Figure 7c shows there are 6 potential impacts of climate change. • Figure 7c shows how there are a range of potential impacts which could affect both people and the environment. • Figure 7c shows how climate change may lead to environmental hazards.	
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 (g)	A02 (4 marks), A03 (4 marks), A04 (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:

Question number	Indicative content	
	A02 • Fragile environments such as forests and deserts are at risk of damage and destruction through a range of human and natural causes. • Climate change has the potential to affect such fragile environments in various ways including: increased desertification, wildfires, changing habits conditions, increased extreme weather events, flooding. • Deforestation by human activity has had considerable impact on the tropical rainforests of Brazil. An area equivalent to the size of Qatar was cleared between 2021 -2022. A03 • Figure 7b shows how there has been continued sea level rise over previous decades and the impacts of this are already being experienced. If this is to continue as a result of climate change then these impacts will continue and potentially worsen. • Fragile environments are affected by human activity directly through practices such as deforestation (for mining, agriculture, settlement/infrastructure building), agriculture and tourism. Human activity can lead to increased pollution of water, air and land. • Given the global nature of climate change it may be considered the greatest threat because it has such a wide range of impacts on different environments. A04 • Figure 7b shows how there has been continued sea level rise since 1900. • Figure 7b shows how there are fluctuations in sea levels. • Figure 7b shows how sea levels have continued to rise despite efforts to curb the impact of climate change. • Figure 7c shows there are 6 potential impacts of climate change. • Figure 7c shows how there are a range of potential impacts which could affect both people and the environment. • Figure 7c shows how climate change may lead to environmental hazards.	
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. (A02) • 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. (A03)

Question number	Indicative content	
		• Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
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) C faster transport. The answer cannot be A, B or D as these are not factors that have encouraged the growth of mass tourism. A & B (impact of mass tourism), D (related to trade not tourism).	(1)

Question number	Answer	Mark
8(a)(ii)	AO1 (1 mark) D limiting numbers of tourists (1) The answer cannot be A, B or C as these are not strategies designed to make tourism more sustainable.	(1)

Question number	Answer	Mark
8(a)(iii)	AO1 (1 mark) Award 1 mark for a suitable environmental impact. • Litter/land pollution (1) • Air pollution (1) • Water pollution (1) • Soil erosion (1) • Damage to wildlife habitats (1) • Destroys coral reefs (1) • Deforestation (1) • Increased carbon emissions/increased greenhouse gases/climate change (1) Accept any other appropriate response. Do not accept pollution on its own.	(1)

Question number	Answer	Mark
8(b) (ii)	A03 (2 marks) Award 1 mark each of the following answers in this order. • Highest: China (1) • Lowest: Chad (1)	(2)

Question number	Answer	Mark
8(b)(ii)	AO2/AO3 (4 marks) Award 1 mark for pattern identified, and a further mark for explanation of the reason, up to a maximum of 2 marks per idea. • There are very few countries with less than \$5billion of exports of goods and services (1) this is likely due to the nature of the globalised economy (1). • North America and Europe have the most countries with higher values of exports (1) likely to be due to the advanced economies where goods and particularly services are likely to be of higher value (1). • Africa tends to have many countries with \$50 billion and below (1) because many of the exports here will be natural resources which do not have as much value as processed goods (1). • Landlocked countries such as Chad have lower exports (1) due to more expensive costs of transport/lack of access to the coast (1). • High levels in Europe (US\$100.1+billion) (1) due to trade agreements reducing costs of exports (1). • Many countries in Africa have relatively low value (US\$5.1-10)(1) due to low value of natural resources exported (1). Accept any other appropriate response.	(4)

Question number	Answer	Mark
8(c)	AO1/AO2 (4 marks) Award 1 mark for each approach, and a further mark for an explanation or development, up to a maximum of 2 marks for each. • Require visas to enter the country (1) so that the reason for entering the country can be considered prior to arrival (1). • Establish quotas for migrants (1) to ensure that workers needed for specific sectors can fulfil the demand in destination countries (1) • Border checks/barriers (1) to prevent people from crossing borders illegally (1). Accept any other appropriate response.	(4)

Question number	Answer	Mark
8(d)(i)	AO4 2 marks Award 1 mark for the correct method, and 1 mark for the correct answer. 144-112 (1) Higher number – lower number 32 (1) Accept answers using figures to lead to 29-35	(2)

Question number	Answer	Mark
8(d)(ii)	AO2 (1 mark) / AO3 1 mark Award 1 mark for identification fo a trend, and further mark for further description which could include the use of data, up to a maximum of 2 marks. • Increase in overall number of migrants (1) with males continuing to be higher than female across the years shown (1). • Both male and female migrants have increased since 2000 (1) by about a quarter (1). • Consistent more male migrants (1) with greatest difference in 2020 (1). • Increased in both migrants (1) but males always slightly higher (1). Accept any other appropriate response.	(2)

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 • In 2021, the global trade value of goods exported throughout the world was approximately US\$ 23 trillion up from around US\$6 trillion in 2000. This indicates the size of the growth of the global economy. • Indicators of the global economy are usually considered in economic terms provided by trade between different countries.

	- TNCs are often considered facilitators of the global economy because their supply chains are often global with operations in many different countries. - A key facilitator of the growth of the global economy has been the ease with which trade can take place, which has been driven by the internet (and smart phone use), as well as developments in modern transport to facilitate the faster movement of goods and people. AO4 - Figure 8c shows there 6 factors that can affect the global economy. - Figure 8c shows how there are a range of potential factors that can affect engagement with, and development of, the global economy. - Figure 8c shows how the global economy is affected by technology, trade as well as people.	
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)	A02 (4 marks), A03 (4 marks), A04 (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: A02 Globalisation is the process of increased integration across different countries around the world.

Question number	Indicative content	
	- Globalization has led to the increase trade of good and services. The pattern of trade is uneven depending on resources and services available. This is also influenced by geopolitical relations between countries, and activities trade blocs. - Globalization has led to the shifts in some part of supply chain processes from developed to developing/emerging countries. This increases investment in these areas, and can lead to greater employment. AO3 - While primarily an economic process, it also can impact different cultures and global interaction increases. - The growth of the global economy may be measured in terms of trade, but its processes are driven by the people that do the work. - The organisations/businesses that drive the global economy are driven by its labour force. Some of these people move around the world for work. - While more integration in the global economy may bring greater investment, jobs and services, it also has impacts on the local cultures. - In the modern day the internet has facilitated communication between people around the world. This not only provides people with information about different aspects of the global economy necessary to understand how to increase trade, but also provides exposure to different global cultures. AO4 - Figure 8b shows how there has an increased in international migration from around 165 million in 2000 to around 280 million in 2020. - Figure 8b shows how there are usually more male international migrants than females. - Figure 8b shows that the proportion of male international migrants has risen slightly since 2000. - Figure 8c shows there 6 factors that can affect the global economy. - Figure 8c shows how there are a range of potential factors that can affect engagement with, and development of, the global economy. - Figure 8c shows how the global economy is affected by technology, trade as well as people.	
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

Question number	Indicative content	
		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. (AO4)
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 – number of deaths before age 1, per 1,000 live births in a year.(1) The answer cannot be A, C or D as these are not correct definitions of infant mortality rate.	(1)

Question number	Answer	Mark
9 (a)(ii)	AO1 (1 mark) A – birth rate (1) The answer cannot be B, C or D as these are not factors that directly affect natural increase in a population.	(1)

Question number	Answer	Mark
9(a)(iii)	AO1 (1 mark) Award 1 mark for a suitable reason: • Colonialism (1) • Patterns of migration (1) • Resource availability (e.g. minerals/forests) (1) • War (1) Accept any other appropriate response.	(1)

Question number	Answer	Mark
9(b) (i)	AO3 (2 marks) Award 1 mark each of the following answers. • India (1) • Venezuela (1)	(2)

Question number	Answer	Mark
9(b)(ii)	AO2/AO3 (4 marks) Award 1 mark for a pattern identified, and a further mark for explanation of the reason, up to a maximum of 2 marks per idea. • Higher fertility rates tend to be concentrated in central Africa (1) this may be due to need for family members to work/this may be due to lack of access to contraception (1). • Lower fertility rates in North America (1) due to access to contraception/education/increased focus on career (1). • North America and Europe/HICs have comparatively lower fertility rates (1) this may be due to cultural norms of having small families (1). • Middle East and North Africa range from 2.1-6 (1) potentially due to differences in cultural norms (1). • Low fertility rates in East Asia, like China and Japan (1) as people spend more time caring for ageing relatives rather than having children (1). Accept any other appropriate response.	(4)

Question number	Answer	Mark
9(c)	AO1/AO2 (4 marks) Award 1 mark for identification of a reason, and a further mark for an explanation or development, up to a maximum of 2 marks. • Top-down development projects tend to be more focused on large scale improvements such as infrastructure (1) which have the potential to improve the lives of many people due to the large scale (1). • Investing in infrastructure can improve accessibility (1) which can attract international investment (1). • Top-down development strategies frequently involve large amounts of money (1) which usually require cooperation of governments/international organisations (1). Accept any other appropriate response.	(4)

Question number	Answer	Mark
9(d)(i)	A04 (2 marks) Award 1 mark for the correct method, and 1 mark for the correct answer. • $1.58 - 0.36$ (1) Larger number – smaller number • 1.22 (1) Accept answer that range from 1.19-1.25	(2)

Question number	Answer	Mark
9(d)(ii)	A02 (1 mark) / A03 1 mark Award 1 mark for identification of a trend, and further mark for further description which could include the use of data, up to a maximum of 2 marks. • GDP for all countries shown has increased (1) but the size of growth is largest for Australia and Indonesia (1). • Ghana has experienced the lowest growth (1) rising from 0.02 to 0.07 US\$ billion (1). • Australia increased (1) with a more rapid increase in 2008 to 2011 (1). Accept any other appropriate response.	(2)

Question number	Indicative content	
9(e)	A03 (3 marks)/A04 (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: A03 - Human welfare has many different aspects. It can be defined as a general condition of a population or society, but it is more difficult to define than this. It is essentially a consideration of the quality of life for people in a society. - There are different physical (e.g. diet, housing), social (e.g. education), economic (e.g. income and employment) and psychological (e.g. health and happiness) aspects to human welfare. - The factors that affect human welfare are often interrelated, for example availability of a secure reliable job will affect someone's ability to have a stable income and therefore ability to buy nutritious food. - It is difficult to measure human welfare overall, but considering indicators which relates to some of the factors above may indicate aspects of human welfare. A04 - Figure 9c shows there 6 potential factors that can affect human welfare. - Figure 9c shows how human welfare can be affected by social, economic and environmental factors. - Figure 9c shows how there could be many routes to improving human welfare.	
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. (A03) - Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (A04)
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)	A02 (4 marks), A03 (4 marks), A04 (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: A02 • There are a range of economic, demographic, social, cultural, political and environmental indicators which can be used to measure development. • Progress in development can be understood using a range of different indicators which may relate to economic (GDP) or social (literacy rate) aspects of society or a mixture (e.g. HDI). • Economic indicators of development often include: GDP, GDP per capita, GNP, and employment levels. • Gross Domestic Product (GDP) is a measure of economic activity in a country. It is calculated by adding the total value of a country's output of goods and services in one year. • 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. • Human Development Index which uses several indicators (years of schooling/life expectancy and GDP per capita) to understand overall levels of development. A03 • Many economic measures such as GDP do not take into account the living standards which are an important social aspect of development. • Some composite measures such as HDI recognise that the criteria for measuring development should be more than just economic growth alone. Trends in HDI show progress in development across the world (with minor reductions in 2019-20), although this doesn't necessarily match the trend shown by GDP.

Question number	Indicative content	
	• Most economic indicators do not even capture all economic activity. For example GNP per capita does not take in to account the value of subsistence production. • Many indicators which are used to understand global development use measurements for the national scale. This masks uneven development within countries. There may be regions of some countries which have seen great progress but these are not usually presented through national economic indicators. AO4 • Figure 9b shows how have been increases in GDP for many countries around the world since 1990. • Figure 9b shows how the level of GDP growth varies significantly around the world. • Figure 9b shows how higher rates of growth are not only experienced by developed countries, but developing and emerging countries too. • Figure 9c shows there 6 potential factors that can affect human welfare. • Figure 9c shows how human welfare can be affected by social, economic and environmental factors. • Figure 9c shows how there could be many routes to improving human welfare.	
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. (AO4)
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)

Question number	Indicative content	
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)

