OXFORD

INTERNATIONAL
AQA EXAMINATIONS

INTERNATIONAL A-LEVEL
GEOGRAPHY
GG04

Paper 4 Human Geography 2

Mark scheme

June 2022

Version: 1.0 Final

Mark schemes are prepared by the lead assessment writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same, correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from oxfordaqaexams.org.uk

International A-level Geography mark scheme

How to mark

Aims

When you are marking your allocation of scripts your main aims should be to:

- recognise and identify the achievements of students
- place students in the appropriate mark band and in the appropriate part of that mark band (high, low, middle) for **each** Assessment Objective
- record your judgements with brief notes, annotations and comments that are relevant to the mark scheme and make it clear to other examiners how you have arrived at the numerical mark awarded for each Assessment Objective
- ensure comparability of assessment for all students, regardless of question or examiner.

Approach

It is important to be **open-minded** and **positive** when marking scripts.

The specification recognises the variety of experiences and knowledge that students will have. It encourages them to study geography in a way that is relevant to them. The questions have been designed to give them opportunities to discuss what they have found out about geography. It is important to assess the quality of **what the student offers**.

Do not mark scripts based on the answer **you** would have written. The mark schemes have been composed to assess **quality of response** and not to identify expected items of knowledge.

Assessment Objectives

This component requires students to:

AO1	Demonstrate knowledge and understanding of places, environments, concepts, processes, interactions and change, at a variety of scales.
AO2	Apply knowledge and understanding in different contexts to interpret, analyse and evaluate geographical information and issues.
AO3	Use a variety of relevant quantitative, qualitative and fieldwork skills to: • investigate geographical questions and issues • interpret, analyse and evaluate data and evidence • construct arguments and draw conclusions.

The marking grids

Do not think of levels equaling grade boundaries.

Depending on the part of the examination, the levels will have different mark ranges assigned to them. This will reflect the different weighting of Assessment Objectives in particular tasks and across the examination as a whole.

Using the grids

Having familiarised yourself with the descriptors and indicative content, read through the answer and annotate it (as instructed below) to identify the qualities that are being looked for and that it shows. You can now check the levels and award a mark.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptors for that level. The descriptors for the level indicate the different qualities that might be seen in the student's answer for that level. If it meets all the descriptors for the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptors and the answer. With practice and familiarity you will find that for better answers you will be able to skip through the lower levels of the mark scheme quickly.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best-fit approach for defining the level and then use the variability of the response to help decide the mark within the level.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark.

It is often best to start in the middle of the level's mark range and then check and adjust. If there is a lot of indicative content fully identifiable in the work you need to give the highest mark in the level. If only some is identifiable or it is only partially fulfilled, then give the lower mark.

The exemplar materials used during standardisation will also help. There will be an answer in the standardising materials that will correspond with each level of the mark scheme. This answer will have been awarded a mark by the lead examiner. You can compare the student's answer with the example to determine if it is of the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the lead examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

In addition to the levels descriptors, question specific indicative content is provided as a guide for examiners. This is not intended to be exhaustive and you must credit other valid points.

An answer that contains nothing of relevance to the question must be awarded no marks.

Annotating scripts

You should write a summative comment at the end for each Assessment Objective and indicate the marks for each Assessment Objective being tested at the end of the answer in the margin in sequence. It is vital that the way you arrive at a mark should be recorded on the script. This will help you with making accurate judgements and it will help any subsequent markers to identify how you are thinking. Please do not write negative comments about students' work or their alleged aptitudes.

Section A – Changing Places   **Total for this section: 40 marks**

Question	Part	Marking guidance	Total marks
01	1	**A place that is seen as being physically close and is often viewed as being similar in culture is known as:** Key – B: a near place.	1 AO1=1

Question	Part	Marking guidance	Total marks
01	2	**Which of the following would <u>all</u> be considered quantitative sources of data about a place?** Key – C: Average house price; birth rate; household income	1 AO1=1

Question	Part	Marking guidance	Total marks
01	3	**Which of the following is associated with a person feeling like an outsider in a place?** Key – A: Someone who feels homesick and alienated from society.	1 AO1=1

Question	Part	Marking guidance	Total marks
01	4	**'A place has seen a significant change in recent years. This has resulted in several international food stores opening in the area.' This is an example of which of the following?** Key – A: Cultural change	1 AO1=1

Question	Part	Marking guidance	Total marks
01	5	**Which of the following are all considered endogenous factors associated with a place?** Key – D: A river; height above sea level; topography	1 AO1=1

Question	Part	Marking guidance	Total marks
02		**Figure 1a**, **Figure 1b** and **Figure 1c** show representations of Hawaii, a state of the USA. **Figure 1a** shows newspaper headlines from 2019. **Figure 1b** shows photographs from a tourist information website. **Figure 1c** shows an extract from a travel blog by an international tourist. **Using Figure 1a, Figure 1b and Figure 1c, analyse the ways in which Hawaii has been represented.**	6 AO3=6

Level	Marks	Descriptor
2	4 – 6	**AO3** – Clear analysis of the evidence provided which makes appropriate use of data to support. Clear connections between different aspects of the data.
1	1 – 3	**AO3** – Basic analysis of the evidence provided which makes limited use of data to support. Basic or limited connections between different aspects of the data.
0	0	No creditable content.

Indicative Content

There are a variety of ways of approaching this unseen material.

This question requires students to analyse the way in which this place, Hawaii, is represented in the figures provided. Level 2 answers must refer to how the place is represented explicitly and use specific evidence from the figures. No credit for representation not evident in the figures provided.

AO3

- The sources suggest this place, Hawaii, has mixed representations; both positive and negative aspects.
- Figure 1a, the newspaper headlines, especially represent the place in a mixed way, however, three out of the four headlines are negative. These headlines represent the place as being an undesirable place to reside with a high cost of living, traffic issues and significant rates of homelessness. They represent the place as largely urban with issues that are common in built-up places.
- One headline suggests the place is a positive place to reside as it was ranked the happiest state in the US. This represents the place as being good for your wellbeing as well as having positive work and community environments; as highlighted in the subhead.
- Figure 1b, the photographs from the tourist information website are representing the place in a more positive way; bright blue ocean scenes and green space both feature. This is unsurprising considering the aim of the images (some candidates may note all were taken in good weather so adds to bias). The photographs however still show varied representations of the place; one showing a built-up coastline whereas the other shows a distinct lack of buildings in comparison.
- Figure 1c, the travel blog represents the place as being tropical with beaches and waterfalls with several species of bird; suggesting a more remote, quiet and idyllic landscape. This is a polarised representation of the newspaper headlines which suggest it has traffic congestion and homelessness.

There is also a difference here between the black sandy beaches in the blog and the image presented in Figure 1b.

- One image in Figure 1b representing the place as being remote and lacks built-up areas is synonymous with some phrases in Figure 1c, the blog; "not a human voice to be heard".
- Some could argue that the figures are biased as they always have an underlying purpose for their creation – eg the newspaper headlines will aim to grab attention and the tourist agency website will be aiming to attract visitors.
- It could be argued that there is a sense of balance due to the mixed representations shown.

Question	Part	Marking guidance	Total marks
03		**'Qualitative data is more useful than quantitative data in understanding people's lived experience of place.'** **Use examples of one or more places you have studied to evaluate this view**. **AO1** – Knowledge and understanding of lived experience of place. Knowledge and understanding of how places can be studied through qualitative and quantitative data. **AO2** – Application of knowledge and understanding to evaluate the usefulness of qualitative and quantitative in understanding lived experience.	9 AO1=4 AO2=5

Level	Marks	Descriptor
3	7 – 9	**AO1** – Demonstrates detailed knowledge and understanding of concepts, processes, interactions and change. These underpin the response throughout. **AO2** – Applies knowledge and understanding appropriately with detail. Connections and relationships between different aspects of study are fully developed with complete relevance. Analysis and evaluation are detailed and well supported with appropriate evidence.
2	4 – 6	**AO1** – Demonstrates clear knowledge and understanding of concepts, processes, interactions and change. These are mostly relevant though there may be some minor inaccuracy. **AO2** – Applies clear knowledge and understanding appropriately. Connections and relationships between different aspects of study are evident with some relevance. Analysis and evaluation are evident and supported with clear and appropriate evidence.
1	1 – 3	**AO1** – Demonstrates basic knowledge and understanding of concepts, processes, interactions and change. This offers limited relevance with inaccuracy. **AO2** – Applies limited knowledge and understanding. Connections and relationships between different aspects of study are basic with limited relevance. Analysis and evaluation are basic and supported with limited appropriate evidence.
0	0	No creditable content.

Indicative Content

This question requires an awareness of the range of qualitative and quantitative data sources used to investigate place. They should evaluate and assess the usefulness of qualitative and quantitative data to come to an overall view. Students should refer to examples they have studied to support their argument. These are likely to be wide ranging and dependent on the places studied throughout the topic.

AO1

- Knowledge and understanding of the concept of lived experience when investigating place. Lived experience will often be different for different people living in the same place, eg an elderly long-term resident vs a student who has moved to an area to study.
- Knowledge and understanding that a person's lived experience changes over time and is influenced by several factors. Lived experience can also change at a range of scales, such as seasonal changes in tourist resorts such as Patong in Thailand or over several years due to regeneration such as Puerto Madero in Buenos Aires.
- Knowledge and understanding of the general usefulness of qualitative data in understanding lived experience, eg diary entries such as those by Dr Thomas Lucas about life in Stirling (Scotland) and artistic sources such as rap music by Eminem about Detroit (USA). These provide more detailed commentary on thoughts and feelings about a place.
- Knowledge and understanding of the general usefulness of quantitative data in understanding lived experience, such as statistics and census data. These can provide huge quantities of numerical data to help understand lived experience.

AO2

- Analysis of the different types of data available for places that can help the understanding of lived experience.
- Evaluation of qualitative data. This is often subjective in nature such as diary entries, or artistic sources such as poetry or paintings, eg Lowry depiction of the industrial districts of Northern England in a way in which he saw it. Quoted as saying "I wanted to paint myself into what absorbed me ... Most of my land and townscape is composite, bits and pieces of my home locality". This can give a sense of lived experience and can provide a high level of detail on thoughts and feelings associated with a place but is subjective and arguably only useful in understanding the lived experience for one individual. Some students may note that if combined with a number of other individual accounts, they may well demonstrate a collective lived experience.
- Evaluation of quantitative data. This can provide large amounts of data that is comparable over time such as census data, or cartography which can give a good level of detail in understanding lived experience. This data can be analysed in raw form which can reduce subjectivity. However, statistics can be skewed and do not give detail on a person's personal lived experience. There may also be issues with accuracy of some data sets, through methodology issues for example. This too would affect analysis.
- Evaluation that different types of data will shine a light on different aspects of lived experience.
- Evaluation that often both qualitative and quantitative data will require an element of analysis and inference in order to investigate lived experience.
- Some students may identify that some places do not have the same amounts of qualitative and quantitative data available as other places or have a balance of both.
- Some students may identify the need to use a combination of both qualitative and quantitative data in order to fully understand lived experience of a place for a range of people.
- Overall conclusion of the usefulness of qualitative data in understanding lived experience.

Question	Part	Marking guidance	Total marks
04		**To what extent do shifting flows of people have a positive impact on the characteristics of places?** **Use examples of one or more places you have studied to support your answer.** **AO1** – Knowledge and understanding of how demographic, socio-economic and cultural characteristics of places are shaped by shifting flows of people. **AO2** – Application of knowledge and understanding to evaluate the impact of shifting flows of people in shaping the character of places.	**20** **AO1=10** **AO2=10**

Level	Marks	Descriptor
4	16 – 20	**AO2** – Detailed evaluative conclusion that is rational and firmly based on knowledge and understanding which is applied to the context of the question. **AO2** – Detailed, coherent and relevant analysis and evaluation in the application of knowledge and understanding throughout. **AO2** – Full evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts. **AO1** – Detailed, highly relevant and appropriate knowledge and understanding of place(s) and environments used throughout. **AO1** – Full and accurate knowledge and understanding of key concepts and processes throughout. **AO1** – Detailed awareness of scale and temporal change which is well integrated where appropriate.
3	11 – 15	**AO2** – Clear evaluative conclusion that is based on knowledge and understanding which is applied to the context of the question. **AO2** – Generally clear, coherent and relevant analysis and evaluation in the application of knowledge and understanding. **AO2** – Generally clear evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts. **AO1** – Generally clear and relevant knowledge and understanding of place(s) and environments. **AO1** – Generally clear and accurate knowledge and understanding of key concepts and processes.

		AO1 – Generally clear awareness of scale and temporal change which is integrated where appropriate.
2	**6 – 10**	**AO2** – Some sense of an evaluative conclusion partially based upon knowledge and understanding which is applied to the context of the question.
		AO2 – Some partially relevant analysis and evaluation in the application of knowledge and understanding.
		AO2 – Some evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts.
		AO1 – Some relevant knowledge and understanding of place(s) and environments which is partially relevant.
		AO1 – Some knowledge and understanding of key concepts, processes and interactions and change.
		AO1 – Some awareness of scale and temporal change which is sometimes integrated where appropriate. There may be a few inaccuracies.
1	**1 – 5**	**AO2** – Very limited and/or unsupported evaluative conclusion that is loosely based upon knowledge and understanding which is applied to the context of the question.
		AO2 – Very limited analysis and evaluation in the application of knowledge and understanding. This lacks clarity and coherence.
		AO2 – Very limited and rarely logical evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts.
		AO1 – Very limited relevant knowledge and understanding of place(s) and environments.
		AO1 – Isolated knowledge and understanding of key concepts and processes.
		AO1 – Very limited awareness of scale and temporal change which is rarely integrated where appropriate. There may be a number of inaccuracies.
0	**0**	No creditable content.

Indicative Content

This question links elements of 'changing places', namely the 'relationships and connections' element of the specification. The question requires knowledge of how shifting flows of people affect the character of places. They should evaluate and assess the extent to which the overall impact of shifting flows of people is positive and reach a conclusion. No credit for evaluation of other flows such as goods, capital and ideas unless specifically and explicitly linked to flows of people.

AO1

- Knowledge and understanding of the impact of relationships and connections on place.
- Knowledge and understanding of the factors influencing flows of people and how these operate at a range of scales.
- Knowledge and understanding that shifting flows of people can affect the demographic characteristics of places such as age and gender balance.
- Knowledge and understanding that shifting flows of people can affect the cultural characteristics of a place such as language, religion and food.
- Knowledge and understanding that shifting flows of people can affect the economic character of places such as the income generated through tourism and subsequent employment opportunities.
- Knowledge and understanding that shifting flows are influenced by a range of factors.
- Knowledge and understanding that shifting flows could be both short-term or temporary, eg daily commuting or the termly movement of students as well as longer-term or permanent migrations.

AO2

- Analysis that shifting flows of people will have a range of consequences on the character of a place.
- Evaluation that shifting flows of people can affect demographic characteristics in both positive and negative ways. These can be seen to be positive such as through the process of gentrification where new residents often enable places to have an improved environment over time. However, this can often displace original residents and break up communities. Some flows are often seen as having a negative impact on the demographic character of a place. In many rural communities, younger people will migrate to towns and cities to seek employment and/or education. This leaves an uneven distribution of age balance where older people reside in the rural and younger people in the urban places, as evident in many coastal regions in the UK.
- Evaluation that shifting flows of people can affect cultural characteristics in both positive and negative ways. Flows of people can be seen as positive in the mix of culture created, such as through the process of migration. However, sometimes this can cause tension in places between migrants and original residents.
- Evaluation that shifting flows of people can affect economic characteristics in both positive and negative ways. Temporary flows of people such as tourists can generate an income and employment opportunities for people. However, these jobs can be seasonal and money can be leaked away in multinational companies. A temporary flow such as university students can often stimulate economic growth due to a change in services to meet their needs. However, student presence can sometimes cause tensions with local residents.
- Evaluation that short-term flows such as daily commuting could affect the character of places in both positive and negative ways. Economic opportunities such as food and retail outlets near offices may result in a change or increase in some services in places. A large influx in daily commuter traffic may have a negative impact on the local environment both in terms of noise and air pollution. Short-term flows may therefore have a temporal impact.
- Analysis that shifting flows of people will simultaneously affect the source and destination place; these impacts could be positive for one place yet negative for the other.

- Analysis that in some cases, shifting flows of people could affect social inequality, eg large numbers of rural to urban migration in some parts of the world such as in India and result in informal settlements. This often leads to a poor quality of life.
- Evaluation that the influence of shifting flows of people can change over time due to societal changes or external factors such as famine.
- Some students may identify the role of factors in globalisation, such as transport and communication improvements, have had an increasing impact on the character of places at a range of scales.
- Analysis that places are constantly changing due to shifting flows of people; many of which are influenced by external factors. Change is inevitable in an ever-connected world.
- Some students may identify that in some cases, places that live a more isolated existence may well change more slowly, such as indigenous tribes who choose to limit contact with other places.
- Some may identify that places do not need shifting flows of people to change; people from within a place can be the catalyst of change.
- Some may conclude that there are other flows that also affect the character of place, such as flows of goods, capital and ideas and that these work in combination.
- An overall conclusion of the impact of shifting flows of people and how these shape the character of places.

Section B – People and Contemporary Urban Environments   Total for this section: 40 marks

Question	Part	Marking guidance	Total marks
05	1	**Which of the following would <u>both</u> describe the characteristics of a mega city?** Key – B: An urban area with a population of over 10 million people **and** which dominates its regional economy.	1 AO1=1

Question	Part	Marking guidance	Total marks
05	2	**Population movement from rural or suburban areas back to the city centre is known as:** Key – D: urban resurgence.	1 AO1=1

Question	Part	Marking guidance	Total marks
05	3	**Which of the following would <u>both</u> be typical features of a gentrified area?** Key – D: Movement of young, affluent people into the area **and** increase in property value.	1 AO1=1

Question	Part	Marking guidance	Total marks
05	4	**Which of the following describes the effect that urban structures have on wind?** Key – C: Tall buildings cause turbulence around buildings as well as powerful gusts at ground level.	1 AO1=1

Question	Part	Marking guidance	Total marks
05	5	**Which of the following is the definition for submergence, a method of urban waste disposal?** Key – B: Dumping waste, sometime in containers, into oceans.	1 AO1=1

Question	Part	Marking guidance	Total marks
06		Malaria prevalence is the percentage of a population with malaria at any given time. GDP is the total value of goods and services produced by a country in a year; an indicator of wealth. **Figure 2** shows the relationship between GDP per capita and malaria prevalence in selected countries in 2017. **Analyse the data shown in Figure 2.**	**6** **AO3=6**

Level	Marks	Descriptor
2	**4 – 6**	**AO3** – Clear analysis of the quantitative evidence provided which makes appropriate use of data to support. Clear connections between different aspects of the data.
1	**1 – 3**	**AO3** – Basic analysis of the quantitative evidence provided which makes limited use of data to support. Basic or limited connections between different aspects of the data.
0	**0**	No creditable content.

Indicative Content

There are a variety of ways of approaching this unseen material.

This question requires the analysis of the relationship between prevalence of malaria and GDP per capita in selected countries. For maximum marks there should be use of specific data.

AO3

- The graph shows a clear negative relationship between GDP per capita and the prevalence of malaria; as GDP increases, prevalence of malaria decreases.
- Countries in Africa have the highest prevalence of malaria with the highest 13 countries on this graph. Prevalence varies from 27% to 6.9%; a range of 20.1%. Three African countries; Burundi, Democratic Republic of Congo and Malawi also have some of the lowest GDP figures.
- The Democratic Republic of Congo has the second lowest GDP at US$808 per capita and the second highest prevalence of malaria at just over 20%.
- Countries with the lowest prevalence of malaria are predominantly in Asia and North America with the exception of South Africa.
- Countries with the higher GDP figures have some of the lowest figures for malaria prevalence; three notable examples being Saudi Arabia, South Korea and Malaysia, all in Asia.
- Equatorial Guinea in Africa is an anomaly within the graph. It has the highest prevalence of malaria at 27% but has the 4th highest GDP per capita at $22 604.
- Tajikistan has the 3rd lowest prevalence of malaria at 0.002% yet also one of the lowest GDP figures at $2 897.

- Some may note that as both axes are on logarithmic scales, the differences between the extremes are even greater than the graph suggests.

Question	Part	Marking guidance	Total marks
07		**Assess the success of strategies used to make cities more sustainable.** **Use examples you have studied to support your answer.** **AO1** – Knowledge and understanding of the concept of sustainability in cities. Knowledge and understanding of management strategies for developing more sustainable cities. **AO2** – Application of knowledge and understanding to analyse and evaluate the effectiveness of management strategies for developing more sustainable cities.	**9** **AO1=4** **AO2=5**

Level	Marks	Descriptor
3	7 – 9	**AO1** – Demonstrates detailed knowledge and understanding of concepts, processes, interactions and change. These underpin the response throughout. **AO2** – Applies knowledge and understanding appropriately with detail. Connections and relationships between different aspects of study are fully developed with complete relevance. Analysis and evaluation are detailed and well supported with appropriate evidence.
2	4 – 6	**AO1** – Demonstrates clear knowledge and understanding of concepts, processes, interactions and change. These are mostly relevant though there may be some minor inaccuracy. **AO2** – Applies clear knowledge and understanding appropriately. Connections and relationships between different aspects of study are evident with some relevance. Analysis and evaluation are evident and supported with clear and appropriate evidence.
1	1 – 3	**AO1** – Demonstrates basic knowledge and understanding of concepts, processes, interactions and change. This offers limited relevance with inaccuracy. **AO2** – Applies limited knowledge and understanding. Connections and relationships between different aspects of study are basic with limited relevance. Analysis and evaluation are basic and supported with limited appropriate evidence.
0	0	No creditable content.

Indicative Content

This question requires links to be made within the 'people and contemporary urban environments' part of the specification content, namely within the 'sustainable urban developments' element. Some may also draw on other specification elements such as 'urban waste' and 'other contemporary urban environment issues'. Answers are likely to be wide ranging depending on the strategies assessed and examples used.

AO1

- Knowledge and understanding of the concept of sustainability in cities.
- Knowledge and understanding of opportunities and challenges that cities face in order to become more sustainable environments.
- Knowledge and understanding of strategies for developing sustainable cities. Examples could include investment in infrastructure, such as London (UK) investing in bicycle hire and public transport. Investment in renewable energy sources, such as Macau (China) where the government has invested in solar electricity generation. Provision of green spaces, such as Vauban, a district in Freiburg (Germany). The reduction of waste production or improvement of recycling, such as Curitiba (Brazil) and Masdar City (Abu Dhabi, UAE).
- Awareness that strategies can be implemented at a range of scales.
- Awareness of the role of governments in developing sustainable cities.

AO2

- Evaluation of the extent to which strategies are successful in aiding cities to become more sustainable.
- Strategies are used and implemented at varying scales, with varying successes.
- Many strategies require large scale investment which is a challenge for many cities. Those in less developed regions arguably have other challenges that require funding such as providing services for ever-growing informal settlements such as Nairobi, Kenya.
- Some cities do not have the necessary built environment for some schemes to be implemented so options may be more limited, eg historical areas may be listed, such as Old Town in Edinburgh (UK) or streets too narrow to implement public transport services, such as the Favelas in Rio de Janerio (Brazil).
- Awareness that some people will be unwilling to change habits such as using park and ride facilities.
- Awareness that sustainable approaches that can be implemented in the home are often dependent on the education of individuals.
- Governments will have differing agendas for development; some will be at an earlier stage of development so the focus may well be on economic growth over sustainability. Some governments may well simply choose economic growth over sustainability.
- As urbanisation continues, strategies will need to be adaptable in order to be successful. Growing populations will add additional pressure to urban waste management and energy usage.
- Climate change could see cities face increasing challenges as demand for water may well increase with rising temperatures for example. Cities such as Barcelona (Spain) are already facing issues with an ageing water system which will only get worse with increased demand.
- Overall, the extent to which strategies are successful is often dependent on a wide range of factors and bound by social and economic pressures.

Question	Part	Marking guidance	Total marks
08		**To what extent is the physical environment the most important factor in determining health in urban areas?** **Use examples you have studied to support your answer.** **AO1** – Knowledge and understanding of the relationship between environmental variables and the impact on health. Knowledge and understanding of the relationship between socio-economic variables and the impact on health. **AO2** – Application of knowledge and understanding to evaluate the impact of physical and socio-economic variables and the impact of these on health.	**20** **AO1=10** **AO2=10**

Level	Marks	Descriptor
4	16 – 20	**AO2** – Detailed evaluative conclusion that is rational and firmly based on knowledge and understanding which is applied to the context of the question. **AO2** – Detailed, coherent and relevant analysis and evaluation in the application of knowledge and understanding throughout. **AO2** – Full evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts. **AO1** – Detailed, highly relevant and appropriate knowledge and understanding of place(s) and environments used throughout. **AO1** – Full and accurate knowledge and understanding of key concepts and processes throughout. **AO1** – Detailed awareness of scale and temporal change which is well integrated where appropriate.
3	11 – 15	**AO2** – Clear evaluative conclusion that is based on knowledge and understanding which is applied to the context of the question. **AO2** – Generally clear, coherent and relevant analysis and evaluation in the application of knowledge and understanding. **AO2** – Generally clear evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts. **AO1** – Generally clear and relevant knowledge and understanding of place(s) and environments. **AO1** – Generally clear and accurate knowledge and understanding of key concepts and processes.

		AO1 – Generally clear awareness of scale and temporal change which is integrated where appropriate.
2	**6 – 10**	**AO2** – Some sense of an evaluative conclusion partially based upon knowledge and understanding which is applied to the context of the question.
		AO2 – Some partially relevant analysis and evaluation in the application of knowledge and understanding.
		AO2 – Some evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts.
		AO1 – Some relevant knowledge and understanding of place(s) and environments which is partially relevant.
		AO1 – Some knowledge and understanding of key concepts, processes and interactions and change.
		AO1 – Some awareness of scale and temporal change which is sometimes integrated where appropriate. There may be a few inaccuracies.
1	**1 – 5**	**AO2** – Very limited and/or unsupported evaluative conclusion that is loosely based upon knowledge and understanding which is applied to the context of the question.
		AO2 – Very limited analysis and evaluation in the application of knowledge and understanding. This lacks clarity and coherence.
		AO2 – Very limited and rarely logical evidence of links between knowledge and understanding to the application of knowledge and understanding in different contexts.
		AO1 – Very limited relevant knowledge and understanding of place(s) and environments.
		AO1 – Isolated knowledge and understanding of key concepts and processes.
		AO1 – Very limited awareness of scale and temporal change which is rarely integrated where appropriate. There may be a number of inaccuracies.
0	**0**	No creditable content.

Indicative Content

This question links different elements within the 'contemporary urban environments' topic, specifically urban environments, health and wellbeing. Urbanisation and urban change in both developed and developing worlds may feature in some answers. The question requires knowledge of how the physical environment in which people live affects health. They should evaluate and assess the extent to which the physical environment has an overall impact on determining health and reach a conclusion.

AO1

- Knowledge and understanding of health and morbidity and variations of these at a range of scales.
- Knowledge and understanding of different types of disease; biologically transmitted and non-communicable diseases. Awareness that different types of disease are linked to different characteristics of environments; physical and/or socio-economic variables.
- Knowledge and understanding that climate variables can increase the incidence of disease. Vectors such as mosquitoes thrive in warm, wetter climates. Higher temperatures can increase the pollen count in some areas leading to an increase in hayfever. Arctic countries may have higher incidence of seasonable affective disorder (SAD) due to a lack of sunlight in the winter months.
- Knowledge and understanding of the role of topography, specifically drainage. Flood plains, particularly in developing countries with high population densities, can be affected by the spread of water-borne disease such as cholera. Higher altitudes could see an increased incidence of skin cancer due to increased exposure to UV rays.
- Knowledge and understanding that urban areas in particular can suffer from poor air quality. This can lead to respiratory problems such as asthma as well as increased incidence of heart disease.
- Knowledge and understanding negative health from poor water quality can be caused by both disease-causing organisms as well as chemical toxins. Diseases such as cholera and hepatitis A can be transmitted through contaminated water.
- Knowledge and understanding of the link between the stresses of urban living and health; mental wellbeing is often negatively affected and there is often increased incidence of anxiety disorders in urban areas.
- Knowledge and understanding of the role of NGOs in health education and preventative measures such as the distribution of mosquito nets.
- Knowledge and understanding of the role of socio-economic factors in health such as levels of investment in healthcare. Poor housing quality and high occupant densities often have a negative effect on health. A lack of sanitation facilities, level of education and accessibility of medical care all have an impact on health.

AO2

- Analysis that the world's most vulnerable populations tend to live in areas of extreme climate such as sub-Saharan Africa which is subjected to high temperatures and seasonal heavy rainfall. High numbers of refugees are also found in areas of extreme climate such as Yemen.
- Analysis that population densities can be high on flood plains in developed countries where housing quality is likely to also be poor. This could increase the incidence of vector-borne diseases such as malaria.
- Consideration that people in developing countries are more likely to cook indoors using wood stoves which decrease air quality and lead to respiratory issues. However, air quality in developed cities can also be poor due to high levels of pollution caused by traffic, which can cause widespread smog. Levels of development can affect air quality in different ways.
- Analysis that in many countries, people have no option but to bathe in contaminated water. In informal settlements such as Dharavi, India, many will bathe in water contaminated with faeces from nearly

toilets. Water supplies are often contaminated through broken pipes. Here, water quality is largely determined by economic factors.

- Evaluation of the impact of levels of development and how this will play a key role in health education as well as in access to adequate health and medical care.
- Analysis that developing countries are typically affected more by biologically transmitted diseases than developed countries. This in part is due to higher standards of living and access to clean, safe water for example. Better health education and healthcare systems and vaccinations also help to reduce the incidence of biologically transmitted diseases.
- Analysis that access to open space is a key factor in determining health, particularly associated with wellbeing and mental health. Some cities in developed countries are actively addressing this.
- Analysis that developed countries are typically more affected by non-communicable diseases and are associated with lifestyle. Some heart diseases and type 2 diabetes are associated with more sedentary lifestyles and unhealthy diets typically seen in more developed nations.
- Some may identify that some diseases have seemingly little relationship to either physical or socio-economic diseases and can affect global populations irrespective of wealth or levels of development.
- Awareness that there is an element of temporal scale to consider – developed countries have often transitioned through the epidemiological stages that developing countries are currently experiencing.
- Conclusion is likely to suggest that health is determined by several factors and often is a combination of both physical and socio-economic variables.

Assessment Objective grid

	AO1	AO2	AO3	Total
Section A				
01.1	1			1
01.2	1			1
01.3	1			1
01.4	1			1
01.5	1			1
02			6	6
03	4	5		9
04	10	10		20
Section B				
05.1	1			1
05.2	1			1
05.3	1			1
05.4	1			1
05.5	1			1
06			6	6
07	4	5		9
08	10	10		20
Unit total	38	30	12	80