

Urban environments-3

Name: _____

Class: _____

Date: _____

Time:

Total Marks Available:

Total Marks Archived:

Level: IGCSE Mathematics A

Subject: Geography

Exam Board: Edexcel IGCSE Geography- it is however suitable for use by mathematics student of other boards

Topic: Urban environments -3

Type: Mark Scheme

To be used by all students preparing for Edexcel IGCSE Geography- Students of other Boards may also find this useful



Mark Scheme

Q1.

Question number	Answer	Mark
	<p style="text-align: center;">AO1 (1 mark)</p> <p>Award one mark for suitable group.</p> <ul style="list-style-type: none">• NGOs (1)• Government (1)• Planners (1)• Charities (1)• World Bank, UNESCO / WHO, other IGOs (1) <p>Accept any other appropriate response.</p>	(1)

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Q2.



Question number	Indicative content
	<p style="text-align: center;">A03 (4 marks)/A04 (4 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>Indicative content guidance The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include the following.</p> <p>A03</p> <ul style="list-style-type: none">• Social and economic challenges are likely to be greatest in developing nations because of a combination of factors. They have fewer resources to cope with more people and their rates of urbanisation are much greater than that of their developed counterparts.• Much of the rapid growth in cities in developing and emerging countries has been caused by rural-urban migration, leading to the creation of shanty towns and squatter settlements. Because of the unplanned nature and scale, this is one of the biggest problems.• Rapid urbanisation creates traffic congestion and transport challenges in a range of developed, developing and emerging countries. This is a problem for various groups in society, rich and poor alike. Solutions are very expensive in nearly all cases, so this is also a big problem.• Lack of access to quality health provision affects developing and emerging countries more. This is linked to mushrooming cities where there is the problem of access to clean water, enabling disease to spread rapidly.• There are other challenges, such as low levels of employment or employment in the informal sector, which is unregulated and poorly paid. This economic challenge can be difficult to solve without clear government intervention.



AO4

- From 2000–2014, the majority of cities in each region have experienced growth, although this growth has been uneven. For example, in Oceania and Europe there has been much smaller growth when compared to Africa and Asia.
- Asia has seen the largest increase in cities, both in terms of the number of cities on the continent and the amount by which these cities have grown, with many growing by more than 6%.
- Cities in developed countries tend to grow more slowly (0–4%) compared to cities in developing/emerging countries (many by 4–8%).
- Europe has the most cities that experienced a decrease in size (usually 0–1%) between 2000 and 2014.
- Oceania has the fewest number of cities with a population between 1–5 million (and no megacities). These cities appear to be growing relatively slowly, with only 0–2% change between 2000 and 2014.



Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	<ul style="list-style-type: none">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	<ul style="list-style-type: none">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	<ul style="list-style-type: none">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)



Q3.

Question number	Answer	Mark
	<p style="text-align: center;">AO1 (1 mark) / (AO3) 2 marks</p> <p>Award 1 mark for an identification of a link and a further 2 marks for extension through explanation or description, up to a maximum of 3 marks.</p> <p>Note any factor can be chosen, based on the information in Figure 3b.</p> <ul style="list-style-type: none">• When there is better environmental quality there may be less pollution locally (1) which means that people can work more with less day's sick (1) which means that they have more disposable income and higher overall quality of life (1).• When there is greater community diversity there is often better community cohesion (1) which means that there may be less crime in an area (1) as the local community is more vigilant and more away and looks after members of their community (1). <p>Accept any other appropriate response.</p>	(3)



Q4.

Question number	Answer	Mark
	<p style="text-align: center;">A02 (4 marks)</p> <p>Award 1 mark for initial explanation and an additional 1 mark for development through further explanation or exemplification. Maximum of 2 marks when no named developed country is used in context.</p> <ul style="list-style-type: none">• Advantage: Greenfield sites are often flat and uncontaminated (1) this makes it cheaper to develop land for new house for instance compared to the clearing cost of brownfield sites (1).	
	<ul style="list-style-type: none">• Disadvantage: Uses permeable land which, when developed, increases surface run-off (1) which can increase urban flood risk in an area (1). <p>Accept any other appropriate response.</p>	(4)

Q5.

Question number	Answer	Mark
	<p style="text-align: center;">A02 (2 +2 marks)</p> <p>Award 1 mark for identification of a factor that can affect land use patterns and an additional 1 mark for development through further explanation or exemplification.</p> <ul style="list-style-type: none">• Land value (1) high value land in the CBD for example tends to be used by businesses who can afford the higher rates.• Access to transport routes (1) as many people try to locate either their business or residential areas near efficient transport networks (1).• The amount of space required for an activity (1) business parks tend to be located in a large open area to accommodate all their facilities (1). <p>Accept any other appropriate response.</p>	(4)



Q6.

Question number	Answer	Mark
	<p style="text-align: center;">A02 (4 marks)</p> <p>Award 1 mark for suitable identification of a strategy with a further mark for development or exemplification. Maximum of 2 marks for each strategy.</p> <p>A range of examples could be used, and responses could refer to strategies which target a range of issues (waste disposal, transport, education, health, employment and housing)</p> <p>Examples could include:</p> <ul style="list-style-type: none">• Self-help schemes in favelas (1) to try and give people the opportunity to buy or rent land connected to city services to provide higher standard of housing (1).• NGOs working to improve water access to houses in informal settlements (1) which reduces the chance of spreading waterborne diseases (1).• Improve sustainable transport network (1) through the Curitiba Master plan which addressed transport network issues across the city and involves prioritizing public transport networks (1).• Increasing investment into the urban rail systems (1) to replace old colonial railways to improve reliability (1). <p>Accept any other appropriate response.</p>	(4)

Q7.



Question number	Answer	Mark
	<p style="text-align: center;">AO2 (2 + 2 marks)</p> <p>Award 1 mark for initial explanation of a scheme, and an additional 1 mark for development through further explanation or exemplification. Maximum of 2 marks when no named developed country is used in context.</p> <p>Answers will depend on chosen case studies, but expect the following points to arise.</p> <ul style="list-style-type: none">• A named policy/strategy used by national and/or local government (1) details how this reduces household and/or municipal waste (1).• Introduction of schemes to 'reduce, reuse and recycle' (1), with further explanation of how this will reduce waste/why this strategy is better than other options, e.g. landfill or incineration (1).• Equipping residents with facilities to recycle and compost their own waste (1), e.g. through doorstep recycling schemes, bottle banks and household waste recycling centres (1).• Development of waste-burning, as opposed to power stations burning fossil fuels (1), will reduce the amount of waste that is disposed of via landfill (1). <p>Accept any other appropriate response.</p>	(4)

Q8.



Question number	Answer	Mark
	<p style="text-align: center;">AO2 (2+2 marks)</p> <p>Award 1 mark for a management approach and a further expansion mark, up to a maximum of 2 marks each.</p> <ul style="list-style-type: none">• Some places have provided grants to developers to build new housing (1) which has allowed people to move from over-crowded areas to newer and better-quality housing (1).• In some cities governments have planned and paid for better access to water and electricity supplies (1) which reduces pollution and allows people to do away with fires for cooking and lighting (1).• Transport routeways and nodes can influence urban quality of life so improving traffic speeds and flows is a solution (1) which will likely go on to improve local air quality conditions (1).• London congestion charge (1) means that people are encouraged to take public transport which reduces city pollution (1). <p>Accept any other appropriate response.</p>	(4)

Q9.



Question number	Answer	Mark
	<p style="text-align: center;">AO2 (4 marks)</p> <p>Award 1 mark for initial development idea and an additional 1 mark for development through further explanation or exemplification. Maximum of 2 marks when no named developing country is used in context, or a developed country is used instead.</p> <p>A range of countries and examples could be chosen, e.g. switching to using “greener” energy, ways of improving quality of life, “hortsiculture”, housing, transport etc.</p> <ul style="list-style-type: none">• In urban areas of Spain, the government have promoted the use of solar panels to generate electricity (1) this generates farm income for people in the rural-urban fringe (1).• In Spain, NGOs have worked with the government to pay for infrastructure improvements (1) which have lifted some people out of poverty as they can travel more easily from the rural area to the cities offering better employment (1).• Adding infrastructure such as public transport (1) which makes it easier for people to commute to work (1). <p>Accept any other appropriate response.</p>	<p style="text-align: right;">(4)</p>

Q10.



Question number	Answer	Mark
	<p style="text-align: center;">AO2 (2+2 marks)</p> <p>Award 1 mark for initial explanation and an additional 1 mark for development through further explanation or exemplification. Maximum of 2 marks when no named developing or emerging country is used in context.</p> <p>A range of countries and examples could be chosen, based on either waste, housing, transport, education e.g. with policies and incentives, working with NGOs as well as legislation.</p> <ul style="list-style-type: none">• [Brazil] In some urban areas of Brazil, the government have promoted the use of solar panels to generate electricity (1) and this has allowed poorer people to use tablet technology in order to better their schooling and education (1).• [Afghanistan] Some NGOs have used education to train self-help groups (1) so that they can develop business skills, as well as finding out about nutrition and hygiene (1).• [Kenya] The local government and UNESCO have put money into health education in Kibera (1) in order to improve women's reproductive health so that education can in turn be improved (1). <p>Accept any other appropriate response.</p>	<p>(4)</p>



Q11.

Question Number	Answer	Mark
(i)	<p style="text-align: center;">AO1 (1 mark)</p> <p>B Reduces loss of countryside (1).</p> <p>The answer cannot be A (a disadvantage), C (a disadvantage), D (refers to greenfield sites).</p>	(1)

Question Number	Answer	Mark
(ii)	<p style="text-align: center;">AO1 (1 mark)</p> <ul style="list-style-type: none">• Overpopulation (1)• Shortage of housing (1)• High demand for services (1)• Development of squatter settlements (1)• Increased air pollution• Traffic congestion (1)• Urban sprawl/loss of greenfield sites (1)• High competition for jobs/growth of informal economy (1). <p>Accept any appropriate response.</p> <p>If answer includes pollution, must include which type to obtain the mark.</p>	(1)

Q12.

Question number	Answer	Mark
	<p style="text-align: center;">AO1 (1 mark)</p> <p>C A site that has previously been built on</p>	(1)



Q13.

Question Number	Answer	Mark
	<p style="text-align: center;">A01 (1 mark)</p> <p>A Business park (1).</p> <p>The answer cannot be B, C or D as these are usually found in the centre of the city.</p>	(1)

Q14.

Question number	Answer	Mark																		
(i)	<p style="text-align: center;">(A03) 1 mark</p> <p>Award 1 mark for:</p> <table border="1"><caption>Population Pyramid Data</caption><thead><tr><th>Age Group</th><th>Rural (Left)</th><th>Urban (Right)</th></tr></thead><tbody><tr><td>65+</td><td>~15</td><td>~15</td></tr><tr><td>45-64</td><td>~30</td><td>~35</td></tr><tr><td>30-44</td><td>~15</td><td>~25</td></tr><tr><td>15-29</td><td>~15</td><td>~20</td></tr><tr><td>0-14</td><td>~15</td><td>~18</td></tr></tbody></table>	Age Group	Rural (Left)	Urban (Right)	65+	~15	~15	45-64	~30	~35	30-44	~15	~25	15-29	~15	~20	0-14	~15	~18	(1)
Age Group	Rural (Left)	Urban (Right)																		
65+	~15	~15																		
45-64	~30	~35																		
30-44	~15	~25																		
15-29	~15	~20																		
0-14	~15	~18																		



Question number	Answer	Mark
(ii)	<p style="text-align: center;">(A03) 1 mark</p> <p>Award 1 mark for:</p> <ul style="list-style-type: none">• 0-14	(1)

Question number	Answer	Mark
(iii)	<p style="text-align: center;">A01 (1 mark)</p> <p>Award 1 mark for any of the following.</p> <ul style="list-style-type: none">• Boundary between urban rural areas (1)• Outskirts of the urban area / development (1)• Where urban and rural mix (1) <p>Accept other appropriate answers.</p>	(1)

Q15.



Question number	Answer	Mark
	<p style="text-align: center;">AO1 (1 mark)</p> <p>Award 1 mark for any of the following.</p> <ul style="list-style-type: none">• (Urban) planners (1)• Local government / local authority (1)• National government / politicians (1)• NGOs / charitable foundations (1)• Developers (1) <p>Accept any other appropriate response, e.g. named organisation, e.g. London Cycling Campaign, TfL, Bedzed, Oxfam, KENSUP, CAFOD, UN, World Bank etc</p>	(1)



Q16.

Question number	Answer	Mark
(i)	<p>A02 (1 mark) /A03 (1 mark)</p> <p>Award 1 mark for suitable reason based on evidence from the photograph (A03), and a further 1 mark for extension through explanation (A02), up to a maximum of 2 marks.</p> <ul style="list-style-type: none">• Large amounts of green space (1) which suggests lots of farmland available (1).• Dense urban area in the distance (1) which suggests this is far from the city centre (1).• Large industrial development visible (1) which typical of an out of town development (1). <p>Accept any other appropriate response.</p>	(2)
(ii)	<p>A01 (1 mark)</p> <p>B Land that has been previously used, abandoned and now waits new use for industrial or commercial purposes.</p> <p>A, C, and D are incorrect as they do not refer to brownfield sites.</p>	(1)



Q17.

Question number	Answer	Mark
(i)	<p>AO2 (1 mark) / AO3 (1 mark)</p> <p>Award 1 mark (AO2) for a reason further mark (AO3) for extension through explanation, up to a maximum of 2 marks:</p> <ul style="list-style-type: none">• Land values increase towards the centre as there is more competition for space (1) which means that shops and services are having to pay more money in central locations (1)• Central areas (red and yellow) tend to have high accessibility in terms of public transport (1) which makes them more appealing to both business and people who might want to live in the central area (1).• The lowest footfalls will be in the peripheral (green) zones but these will have lowest values (1) as they tend to be less commercialised so shops will have less walk-in customers (1). <p>Accept any other appropriate response.</p>	(2)

Question number	Answer	Mark
(ii)	<p>AO1 (2 marks)</p> <p>A Land for development that was previously used for industry</p>	(1)

Q18.



Question Number	Answer	Mark
	<p style="text-align: center;">AO2 (1 mark) / AO3 (1 mark)</p> <p>Award 1 mark for basic evidence from the from the photograph (AO3) and a further 1 mark for extension through explanation (AO2), up to a maximum of 2 marks.</p> <ul style="list-style-type: none">• Lots of green space around the factory (1) which means there is space to expand if the business grows (1).• Flat land (1) suitable for building large factories (1).• Road connections visible (1) which are important for attracting a workforce and for transporting goods produced (1).• Scenic environment for surroundings (1) can be an attractive prospect for workers (1). <p>Accept any other appropriate response.</p>	(2)

Q19.

Question number	Answer	Mark
	<p style="text-align: center;">AO1 (1 mark)</p> <p>A a location that has been previously built-on</p> <p>A is the correct answer as the other options are incorrect definitions</p>	(1)



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