



Mark Scheme (Results)

Summer 2019

Pearson Edexcel GCSE

In Geography Spec B (1GB0) Paper 01

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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.

Question number	Answer	Marks
1(a)(i)	B - August is the wettest month. All other statements are false.	1
1(a)(ii)	12 or 12°C	1
1(b)	<p>Award 1 mark for identifying a factor contributing to aridity and a further mark for explanation. There must be explanation/extension covering the movement of air to gain 2 marks.</p> <ul style="list-style-type: none"> • High pressure areas are dry/arid (1). In these areas clouds rarely form (1) • Arid areas experience high pressure and have low rainfall totals (1) descending air has very little moisture content (1) • Descending air is compressed and so warms up (1) thus condensation cannot take place (1) • For clouds to form, air must be rising and cooling (1) this does not occur in arid/high pressure areas (1). • Rain shadow areas are arid (1) this is because dry air is descending (1). • Dry prevailing winds can result in aridity (1). Winds which have travelled large distances over land will have little moisture (1) • Areas which are large distances from the sea are often dry (1) due to winds carrying very little moisture (1) <p>No credit for simply stating an example of an arid area. Accept any other appropriate response.</p>	2
1(c)(i)	<p>Award one mark for any of the following 1800:7200 or 1800 to 7200</p> <p>180:720 or 180 to 720</p> <p>18:72 or 18 to 72</p> <p>9:36 or 9 to 36</p> <p>3:12</p> <p>1:4 or 1 to 4</p> <p>Note: Reverse answers for example, 4:1 are also valid.</p> <p>Accept any other appropriate response.</p>	1

1(c)(ii)	<p>Identifies a type of item uploaded to social media, for example photos / videos. (1)</p> <p>Identifies one or more social media platform(s), for example Facebook. (1)</p> <p>Has idea of sharing information (1)</p> <p>Explains how social media could be used to record the impact of cyclone damage (1)</p> <p>For example:</p> <ul style="list-style-type: none">• Twitter/Facebook/Instagram/Whatsapp (1) could be used to post photographs showing cyclone damage (1).• Tweets (1) from eyewitnesses detailing impact (1)• News reports detailing cyclone impact (1) could be shared (1)• Photos (1) can be shared (1).• The location of cyclone impacts (1) can be shared (1). <p>Accept any other appropriate response.</p>	2
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1(c)(iii)	<p>Award one mark for identifying a reason why the level of impact differs and a further two marks for explanation up to a maximum of 3 marks.</p> <ul style="list-style-type: none"> • Places have different levels of development (1). More developed areas have more advanced infrastructure (1) which can be very costly to repair(1) • Different levels of development (1) mean that some locations are able to better forecast tropical cyclones (1) so local people can take measures to secure their properties, minimising economic loss. (1) • The magnitude of tropical cyclones may differ (1). Some tropical storms have much higher wind speeds/storm surges than others (1) which can lead to greater damage and economic loss (1). • Levels of storm preparation may vary (1) meaning that in some locations coastal defences may be in place(1) reducing overall economic loss (1). • Residents of more developed nations (1) often have insurance policies in place (1) contributing to a greater overall economic loss (1). • In more developed countries (1), levels of preparation may be more advanced (1) such as early warning tracking systems can be in place (1). <p>Accept any other appropriate response.</p>	3
1(d)(i)	<p>Award one mark for each comparative statement.</p> <ul style="list-style-type: none"> • The highest sea-level projections is 180 cm higher than the lowest projection in 2100 (1). • In the years immediately after 2020, the highest and lowest projections are similar (1). • The highest sea level projection increases more rapidly than the lowest projection (1). • The difference between the highest and lowest projection increases with time (1). <p>Note: Comparative comments can come from the use of data as is the case in the first bullet.</p> <p>Accept any other appropriate response.</p>	2

1(d)(ii)	<p>Award one mark for each correctly identified reason explaining the range in the predictions and a further mark for explanation up to a maximum of two marks each.</p> <p>Award one mark for the idea that sea levels are rising as a consequence of global warming / ice sheet melt / thermal expansion / climate change.</p> <ul style="list-style-type: none"> • Humans may adopt more renewable energy sources (1) which will lead to less global warming and less sea ice melt (1). • Future rates of economic development are difficult to predict (1) as countries develop they may either reduce or increase their emissions (1). • Future rates of population growth are uncertain (1) so a reduced rate of growth may lead to less global warming and lower sea level rise (1) • There could be an increased volcanic activity (1) which may result in lower sea level rise nearer the 20cm lowest projection. (1) • A rapid increase in fossil fuel use (1) could cause a 200 cm increase (1). • The process of climate modelling may have inaccuracies (1), it is difficult to make accurate future projections as there are so many variables (1). <p>Max 3 if no data is used. Only award 1 data mark. Accept any other appropriate response.</p>	4
1(e)	<p>Award one mark for identifying a piece of historical evidence which can be used to reconstruct past climates. Award a further mark for a legitimate explanation.</p> <p>Allow ice core data and tree ring analysis to constitute historical records.</p> <ul style="list-style-type: none"> • Ice cores (1) can be analysed to determine the amount of carbon dioxide in them(1) • Historical records such as paintings/diary entries (1) may inform about frost fairs on the Thames/ difficult growing conditions (1) • Tree rings (1) can be examined with greater thickness indicating better growing periods/higher temperatures (1) • Records of sea level changes (1) can show the link between 	2

	<p>warmer temperatures and ice melt (1)</p> <ul style="list-style-type: none">• Animal fossils (1) which no longer live in certain areas can indicate higher or lower temperatures (1)• U-Shaped valleys (1) show evidence of previous glaciation (1).• Records of carbon dioxide fluctuations (1) can indicate inter-glacials or glacials (1).• Rock type / geology can be studied (1) sediments deposited by shallow seas indicate changes in sea level (1) <p>Accept any other appropriate response.</p>	
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1(f)	<p>B - on a divergent boundary</p> <p>All other answers are evidently false</p>	1
1(g)	<p>Award one mark for correctly identifying a basic difference between volcano type at convergent and divergent boundaries and a further two marks for explanation of that difference.</p> <ul style="list-style-type: none"> • At divergent boundaries the volcanoes are less steep (1), this is due to the low viscosity/runny lava (1) which travels a greater distance before it solidifies (1). • Convergent boundary volcanoes are more cone shaped whereas divergent boundary volcanoes are flatter/shield shape (1) because divergent volcanoes gave faster flowing / less viscous lava (1) because it has a lower gas content (1). • The andesitic lava at convergent boundaries erupts violently (1) due to its high-gas content (1) and its high viscosity (1). • At divergent boundaries volcanic explosivity is lower (1), due to the magma having a lower gas content (1) and it being less viscous (1). • Convergent volcanoes are made of layers of ash and lava whereas divergent ones are made entirely of cooled lava (1). This is because convergent boundary volcanoes are more explosive (1) whereas at divergent boundaries magma easily escapes through fissures (1). <p>Note: Answers don't need to refer to a specific plate boundary.</p> <p>Accept any other appropriate response.</p>	3

Question	Indicative Content	
1(h)	<p style="text-align: center;">AO2 (4 marks) / AO3 (4 marks)</p> <p>Content will vary depending on the chosen case tectonic hazard and the examples used.</p> <p>AO2 (4 marks)</p> <p>Earthquake</p> <ul style="list-style-type: none"> • In Nepal, a primary impact of the earthquake was that an avalanche was triggered on the slopes of Everest killing 17 people and injuring many more who were at base camp at the time of the earthquake. • In Nepal, hundreds of thousands were made homeless as many villages were destroyed by the earth movement. • Landslides were responsible for many deaths and disruption of transport infrastructure. • Liquefaction led to building collapse in Kathmandu especially of older buildings • In Haiti, poor construction methods led to the damage of over 100,000 of buildings. • In Haiti, the main prison was destroyed and 4000 inmates escaped. • In Haiti, disease was a significant secondary impact with the cholera outbreak leading to many additional deaths. • In Haiti, disease spread quickly in refugee camps. • 1 in 5 people in Haiti lost their jobs and only source of income due to buildings collapsing. <p>Volcanic Eruption</p> <ul style="list-style-type: none"> • In Lake Nyos, Cameroon poisonous gases were emitted which posed a danger to living organisms. • In Montserrat, the pyroclastic flow engulfed several villages and buried the capital Plymouth. 	8

- Snow topped volcanoes can have their ice melted by an eruption causing lahars which can destroy villages as was the case following the Nevado del Ruiz eruption.
- Following the eruption of Mt. Nyiragongo, DRC half a million people fled into neighbouring Rwanda. They lived in crowded refugee camps where cholera became a serious threat to health.
- Following the eruption of Mt. Nyiragongo, looting became a serious problem in the nearby city of Goma.
- Occasionally volcanic eruptions trigger tsunamis as was the case with Krakatoa.

Expect students to make the distinction between the primary and secondary effects of their chosen earthquake or volcano to access 4 marks in AO2.

A03 (4 marks)

- 'Importance' can be assessed in terms of economic costs, deaths and injuries.
- Assessment about the relative significance of primary or secondary impacts are worse.
- Primary and secondary impacts in emerging/developing nations are often magnified by poor levels of preparation and the lack of finances to implement an effective disaster response.
- Long term impacts on economic development are often significant.
- Impacts can be magnified by the lack of preparedness, neglect, corruption and poor governance.
- International aid agencies may not always be effective in addressing secondary impacts
- Assessment might include the relative significance of social economic and environmental impacts.

Level	Mark	Descriptor
	0	<ul style="list-style-type: none"> • No acceptable response
Level 1	1-3	<ul style="list-style-type: none"> • Demonstrates isolated elements of understanding of concepts and the interrelationships of places, environments and processes. (AO2) • Attempts to apply understanding to deconstruct information but understanding and connections are flawed. <p>An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3)</p>
Level 2	4-6	<ul style="list-style-type: none"> • Demonstrates elements of understanding of concepts and the interrelationship of places, environments and processes. (AO2) • Applies understanding to deconstruct information and provide some logical connections between concepts. <p>An imbalanced argument that synthesises mostly relevant understanding but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3)</p>
Level 3	7-8	<ul style="list-style-type: none"> • 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)

Question number	Answer	Marks
2(a)(i)	<p>A The average number of children born per woman (in a country).</p> <p>B refers to the death rate, C refers to a young dependent population and D refers to the infant mortality rate.</p>	1
2(a)(ii)	<p>Award one mark for correctly identifying an economic indicator of development and a further mark for an accurate explanation.</p> <ul style="list-style-type: none"> • GDP or Gross Domestic product (1) measures the value of goods and services produced (1) • GDP per capita (1) measures the value of goods and services per person (1) • GNI or Gross National Income (1) measures the total income of a country (1). • The HDI (Human Development Index) includes the measurement the GNI (or GDP) (1) this gives an indication of the wealth of a country (1) • Average incomes (1) can reflect the type of economic activity in the country (1) • PPP (purchasing power parity) (1) reflects the cost of living in different countries (1). • The percentage of people in different economic sectors can be used (1). A higher percentage in primary employment often reflects less well paid forms of economic activity (1) <p>Accept any other appropriate response.</p>	2
2(b)(i)	<p>C Australia</p> <p>Australia has a score in the 80-89 bracket indicating it is 'more clean' than the other countries.</p>	1

2(b)(ii)	<p>Award one mark for each correctly stated disadvantage of choropleth maps.</p> <ul style="list-style-type: none"> • Map assumes the whole region/area has the same value, but there could be variations (1). • Data about individual countries is given as a range as opposed to an exact figure (1). • The maps show sudden changes at boundaries/borders – this often exaggerates differences (1). • The interval/class sizes need to be carefully chosen (1). • Colour blindness makes interpretation difficult (1). • The map is from 2016 therefore data may be outdated (1). • Similar shadings are difficult to tell apart (1) • Some places are lacking data (1) <p>Accept any other appropriate response.</p>	2
2(b)(iii)	<p>Award one mark for identifying a link regarding how systems of governance can lead to inequalities / variations in levels of development.</p> <ul style="list-style-type: none"> • Open economic policies (1) encourage foreign investment which leads to faster development (1) which benefit some groups e.g. those who are employed (1). • Colonialism (1) resulted in colonies being exploited for the economic gain of colonial powers (1) with unequal trading relationships established (1). • Gender bias within governments (1) may result in widening inequalities between men and women (1) which leads to pay differences (1). • Government policy which focus on development in specific regions (1) increases inequalities between wealthy / poor regions (1) for example the investment in new infrastructure in urban areas (1) • Racial bias within governments (1) negatively effects certain ethnic groups (1) which has led to the persecution of people for their religion (1). 	3

	<ul style="list-style-type: none"> • High levels of corruption often correspond to low levels of development (1). In such countries, public finances may not be used effectively (1) limiting spending on public services such as schools and hospitals (1). • In countries where corruption is high, government officials may make poor decisions regarding public finances (1). A lack of investment in health services (1) may result in lower life expectancies (1). • Countries where governments have invested in education/healthcare tend to develop faster (1). A healthy/educated population encourages investment (1) and the workforce more able to contribute to economic growth (1). <p>Accept any other appropriate response.</p>	
2(c)(i)	10-14 age group (1)	1
2(c)(ii)	19.1 or 19.1%	1
2(c)(iii)	<p>Award one mark for each comparative point made.</p> <ul style="list-style-type: none"> • In 2019 the population pyramid has a wide base whereas by 2050 the base has narrowed (1) • In 2050 there are 0.2% more of the population aged over the age of 90. • In 2019, 9% of the Indian population is in the 0-4 age group whereas by 2050 this is forecast to fall to 6.2% by 2050 (1) • It might be inferred that by 2050 life expectancy is higher than in 2019. (1) <ul style="list-style-type: none"> • Allow the manipulation of data to score one mark, for example: In 2050, 2.8% less of the population is aged 0-4 (1). • Both pyramids have a fairly equal gender split. (1) • In 2050 the median age has risen (1) • In 2050 there are a greater % of people in older aged groups (1) • By 2050 there are a greater % of people in middle-aged groups (1) • 2019 has a higher birth / death rate than in 2050. (1) 	3

	<p>Note: Award marks for comparative sentences and not descriptive statements.</p> <p>Note: Do not credit data lifts directly from the resource</p> <p>Accept any other appropriate response.</p>	
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2(d)	<p>Award one mark for identifying a disadvantage of intermediate technology with a further mark for extension. Credit problems with specific examples of intermediate technology.</p> <ul style="list-style-type: none"> • Intermediate technology does not often benefit a large number of people (1) so may not have much of a positive impact on an area's quality of life (1). • Micro-hydroelectricity can be an unreliable form of power (1) because of variations in rainfall. (1) • Intermediate technology often does not have direct government support (1), therefore may incur financial difficulties (1). • Intermediate technology often still involves some cost / some can't afford it (1) which means not all of the community will be able to benefit (1). • Intermediate technology can be unreliable (1) requiring regular repairs (1). • Intermediate technology is not well suited to address issues at a national scale (1) such as transport and communication infrastructures (1) <p>Accept any other appropriate response.</p>	2
2(e)	<p>Award one mark for identifying a benefit of FDI and a further extension mark.</p> <ul style="list-style-type: none"> • FDI increases the number of jobs (1) which leads to an increase in tax revenue for the government (1). • FDI creates jobs (1) which, in turn, leads to the population learning new skills (1). • TNCs invest in local infrastructure (1) which can benefit existing local industries (1). • FDI may introduce new technologies (1) that can help further development for 'local' businesses. • FDI leads to the multiplier effect (1) leading to further economic development (1). <p>Accept any other appropriate response.</p>	2

2(f)	<p>Award one mark for identifying a negative impact of rapid economic growth and a further mark for explanation of how different age groups are affected up to a maximum of two marks.</p> <ul style="list-style-type: none">• Air pollution (1) leads to breathing problems amongst the elderly / young people (1)• Often there are not enough jobs leading to unemployment for young people (1) as a consequence of rapid rural to urban migration (1)• Rapid rural to urban migration (1) leads to an ageing population in rural areas who have no-one to look after them (1).• TNCs in emerging countries are known to employ young children resulting in them not attending school (1) and their education suffering as a consequence (1).• Rural to urban migration (1) leads to an inactive ageing population in rural areas who are often economically inactive (1) <p>Accept any other appropriate response.</p>	4
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Question	Indicative Content	
2(g)	<p>AO2 content will vary depending on the chosen case emerging country and the examples used.</p> <p>AO2 4 marks / AO3 4 marks</p> <p>AO2 (4 marks)</p> <ul style="list-style-type: none"> • China has experienced extremely rapid economic growth, seeing its GDP overtake that of the USA in 2014. • China is having an increasing political role in the South China Sea, an important sea trading route in the region. • China has assumed the dominant position in the East Asian region, overtaking that of USA which has seen its influence in the region diminish as that of China rises. • China has signed many bilateral trade deals with South-Eastern Asian neighbours promoting mutual development as neighbours see China as a key trading force in the region. • China has signed trade deals with Vietnam after many years of conflict and has become the country's main trading partner. • China is having an increasing influence in geopolitical tensions on the Korean peninsula. • From 1971 onwards, China has held a permanent seat affording it veto power on the UN Security Council. • China is a member of the G20 and a key figure in the formation of international economic policy. • India's relationships with its neighbours are tense. India and Pakistan lay claim to Kashmir and both have troops stationed in the area. • With continued rapid economic development, India is becoming an increasing consumer of water. Indian river diversion projects are taking water away from neighbouring Pakistan. • India wishes to become a member of the UN Security Council which will see its international role develop further. • India, China and Pakistan are all nuclear powers. The nations have a key role to play in the area maintaining peace. 	8

- India is a member of the G20 and is a key trading partner with the EU and the USA.
- India has an increasingly important role to play in tackling global climate change and is a major investor in renewable technologies.
- India is playing an important role in the space race and has launched satellites belonging to USA and EU countries.

AO3 4 marks

- Assessment that whereas China / India has become a major regional and global economic force, its cultural and political influence have not developed at the same pace.
- Assessment regarding the increased tension in relationships with their neighbouring countries as China / India exerts its influence.
- Assessment regarding China's increasing political influence in Africa compared to its Western political influence.
- Assessment that China's political/cultural influence will continue to grow in the future as economic development continues.
- Assessment regarding India's future role on the regional /international stage as it continues to develop economically.
- Assessment regarding the importance of India's role in maintaining regional peace / tackling global issues such as climate change.
- Overall evaluation regarding the extent to which China's international role has changed as it has developed.

Level	Mark	Descriptor
	0	<ul style="list-style-type: none"> • No acceptable response
Level 1	1-3	<ul style="list-style-type: none"> • Demonstrates isolated elements of understanding of concepts and the interrelationships of places, environments and processes. (AO2) • Attempts to apply understanding to deconstruct information but understanding and connections are flawed. <p>An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3)</p>
Level 2	4-6	<ul style="list-style-type: none"> • Demonstrates elements of understanding of concepts and the interrelationship of places, environments and processes. (AO2) • Applies understanding to deconstruct information and provide some logical connections between concepts. <p>An imbalanced argument that synthesises mostly relevant understanding but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3)</p>
Level 3	7-8	<ul style="list-style-type: none"> • 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. <p>A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout (AO3)</p>

Performance	Marks	Descriptor
SPaG 0	0	<p><i>No marks awarded</i></p> <ul style="list-style-type: none"> • Learners write nothing. • Learner's response does not relate to the question. • Learner's achievement in SPaG does not reach the threshold performance level, for example severe errors in spelling, punctuation and grammar severely hinder meaning.
SPaG 1	1	<p><i>Threshold performance</i></p>
		<ul style="list-style-type: none"> • Learners spell and punctuate with reasonable accuracy. • Learners use rules of grammar with general control of meaning overall. • Learners use a limited range of specialist terms as appropriate.
SpaG 2	2-3	<p><i>Intermediate performance</i></p> <ul style="list-style-type: none"> • Learners spell and punctuate with considerable accuracy. • Learners use rules of grammar with general control of meaning overall. • Learners use a good range of specialist terms as appropriate.
SpaG 3	4	<p><i>High performance</i></p> <ul style="list-style-type: none"> • Learners spell and punctuate with considerable accuracy. • Learners use rules of grammar with effective control of meaning overall. • Learners use a wide range of specialist terms as appropriate.

Question number	Answer	Marks
3(a)(i)	Award 1 mark for the African line correctly marked at 58% (on the line below the 60% line – each line represents 2%).	1
3(a)(ii)	B – 57%. All others are incorrect responses.	1
3(a)(iii)	<p>Award one mark for identifying a reason why urbanisation rates are forecast to increase and a further mark for explanation.</p> <ul style="list-style-type: none">• Jobs/health care/education are significant pull factors to urban areas (1) leading to rapid rural to urban migration (1).• Large rates of natural increase are occurring in urban areas (1), this is due to large percentages of young people in large cities (1).• Commercial agriculture is displacing subsistence farmers leading to rapid (1) leading to rapid rural to urban migration (1). <p>Accept any other appropriate response.</p>	2

3(b)	<p>C and E are correct answers. They are characteristics of bottom-up development strategies.</p> <p>A is incorrect. It is a characteristic of a top-down development strategy.</p> <p>B is incorrect. It is a characteristic of a top-down development strategy.</p> <p>D is incorrect. It is a characteristic of a top-down development strategy.</p>	2
3(c)(i)	<p>Allow one mark for the candidate demonstrating how to work out percentage increase and then another mark for the correct answer.</p> <p>Difference between original 1991 and 2016 figure = 9.7. $9.7/9.4 = 1.0319$</p> <p>$1.0319 \times 100 = 103.19$ (1)</p> <p>103.2% increase. (1)</p>	2
3 (c)(ii)	<p>Award one mark for identifying areas of spatial growth in Delhi and further marks for expansion such as use of direction and scale. Accept responses that focus on 'local' areas of Delhi.</p> <ul style="list-style-type: none"> • Significant expansion has occurred to the South (1) in a narrow strip 18km (1) south of the dam (1) • Delhi has expanded East (1) of the Yamuna River (1), with its outer limits now extending for 25km (1). • Delhi is expanding to the South East (1), with its limit now extending 25km (1) past the Okhla dam (1). • Delhi has expanded to the West (1) either side of the Najafgarh Drain (1) in an approximately 30km strip (1). • Delhi has more than doubled in size (1). The area around the International Airport has become more urban (1) with rural areas become more infrequent (1). <p>Accept any other appropriate response.</p>	3
3(c)(iii)	<p>Award 1 mark for identifying a challenge from Figure 8b faced by the population of Delhi as a consequence of rapid urban growth a further mark for explanation of the challenge.</p> <p>Answers MUST be applicable to Figure 8b.</p>	4

	<ul style="list-style-type: none"> • Rural to urban migration (1) will result in housing shortages (1) • The population of the city has increased by 9.7 million in 15 years (1) this has led to a huge increase in the amount of waste produced which often ends in landfill creating fire risk/health problems (1). • A rapid increase in the population of the city (1) will result in increased pollution of water sources such as the Yamuna River (1). • Increased traffic congestion will result in increased levels of pollution (1) impacting human health (1). • A large percentage of the population live in slums (1), which lack basic sanitation facilities (1) • Delhi has the world's worst air pollution (1), this creates health related problems (1). <p>Accept any other appropriate response.</p>	
3(d)(i)	3.8%. Allow + or - 3.8%	1
3(d)(ii)	<p>Award 1 mark for establishing a reason why planning regulations affect the growth of cities and a further mark for explanation.</p> <ul style="list-style-type: none"> • Planning regulations can restrict urban growth (1) as planning permission is often difficult to obtain (1). • Planning regulations can protect areas (1) limiting the urban expansion of cities (1). • Planning regulations can restrict the expansion of cities (1) encouraging new developments within existing city boundaries (1) • Planners in developed countries prefer to permit new housing developments on brownfield rather than greenfield sites (1) this restricts the outward growth of some cities into surrounding rural areas (1). • In the 50s and 60s, planners developed new estates on the edges of towns leading to growth (1). People were rehoused from inner city slum areas (1). • Planners in Mumbai are replacing slum housing with high-rise developments (1) which is leading to an increasing population density in inner city areas (1). <p>Accept any other appropriate response.</p> <p>Note: The idea of spatial or population growth must be addressed for 2 marks.</p>	2

3(e)	<p>Award one mark for a cause of deindustrialisation and a further mark for explanation of the reason.</p> <ul style="list-style-type: none">• De-industrialisation can be caused by competition from overseas (1) with it being cheaper to manufacture products in developing/emerging economies (1).• De-industrialisation can be caused by decentralisation (1) as industries move out of unfavoured inner-city locations to the rural-urban fringe (1).• Changing production methods may reduce labour force (1) allowing movement out of traditional manufacturing regions (1)• Cheaper labour costs overseas (1) resulting in industries relocating overseas/offshoring (1).• The growth of tertiary / quaternary industries (1) can lead to jobs in manufacturing becoming less attractive (1).• Cheaper imports from overseas (1) have made UK industries less competitive (1) <p>Accept any other appropriate response.</p>	4
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3(f)	<p>A02 (4 marks) / A03 (4 marks)</p> <p>Answer depends on the megacity chosen.</p> <p>A02 (4 marks)</p> <ul style="list-style-type: none">• Top-down approaches involve government or external groups making key decisions with varying levels of consultation the local population.• Top-down development schemes are large and therefore can benefit greater numbers of people than more small-scale bottom-up schemes.• Top-down development schemes are often expensive involving the country/city/ region incurring significant debt as a consequence of loans.• Loans may have conditions attached to them resulting in key political decisions being made by external agencies.• Details of the social/economic/environmental advantages/disadvantages of top-down schemes in the chosen megacity. <p>A03 (4 marks)</p> <ul style="list-style-type: none">• Success can be evaluated in terms of economic, social, political and environmental outcomes depending on the strategy.• There may be tensions between outcomes with, for example, some economic gains but at high social costs (as with rehousing schemes)• Assessment as to whether the advantages outweigh the disadvantages substantiated by evidence.• Elements of a cost-benefit analysis where advantages and disadvantages are compared and subsequently weighted/ranked.	8
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	<ul style="list-style-type: none">● Assessment might address the long-term sustainability of a strategy. Whereas top-down projects have huge costs, the subsequent benefits can outweigh the initial costs.● Assessment regarding the overall environmental sustainability both in the short-term and longer-term.● Evaluation should offer an overview of 'success' of schemes. <p>Accept any other appropriate responses</p>	
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Level	Mark	Descriptor
	0	<ul style="list-style-type: none"> • No acceptable response
Level 1	1-3	<ul style="list-style-type: none"> • Demonstrates isolated elements of understanding of concepts and the interrelationships of places, environments and processes. (AO2) • Attempts to apply understanding to deconstruct information but understanding and connections are flawed. <p>An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3)</p>
Level 2	4-6	<ul style="list-style-type: none"> • Demonstrates elements of understanding of concepts and the interrelationship of places, environments and processes. (AO2) • Applies understanding to deconstruct information and provide some logical connections between concepts. <p>An imbalanced argument that synthesises mostly relevant understanding but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3)</p>
Level 3	7-8	<ul style="list-style-type: none"> • 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. <p>A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout (AO3)</p>

