

Markscheme

May 2019

Geography

Higher level and standard level

Paper 2

13 pages

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Paper 2 Section C markbands

Marks	Level descriptor		
	AO1: Knowledge and understanding of specified content AO2: Application and analysis of knowledge and understanding	AO3: Synthesis and evaluation	AO4: Selection, use and application of a variety of appropriate skills and techniques
0	The work does not reach a standard described by the descriptors below.		
1–2	<p>The response is too brief, lists unconnected information, is not focused on the question and lacks structure.</p> <ul style="list-style-type: none"> • The response is very brief or descriptive, listing a series of unconnected comments or largely irrelevant information. The knowledge and understanding presented is very general with large gaps or errors in interpretation. Examples or case studies are not included or only listed. • There is no evidence of analysis. • Terminology is missing, not defined, irrelevant or used incorrectly. 		
3–4	<p>The response is too general, lacks detail, is not focused on the question and is largely unstructured.</p> <ul style="list-style-type: none"> • The response is very general. The knowledge and understanding presented outlines examples, statistics, and facts that are both relevant and irrelevant. Links to the question are listed. • The argument or analysis presented is not relevant to the question. • Basic terminology is defined and used but with errors in understanding or used inconsistently. 		
5–6	<p>The response partially addresses the question, but with a narrow argument, an unsubstantiated conclusion, and limited evaluation.</p> <ul style="list-style-type: none"> • The response describes relevant supporting evidence (information, examples, case studies et cetera), outlining appropriate link(s) to the question. • The argument or analysis partially addresses the question or elaborates one point repeatedly. • Relevant terminology is defined and used with only minor errors in understanding or is used inconsistently. 		

<p>7–8</p>	<p>The response addresses the whole question, the analysis is evaluated and the conclusion is relevant but lacks balance.</p> <ul style="list-style-type: none"> • The response describes relevant supporting evidence correctly (information, examples and case studies) that covers all the main points of the question, describing appropriate links to the question. • The argument or analysis is clear and relevant to the question but one-sided or unbalanced. • Complex terminology is defined and used correctly but not consistently.
<p>9–10</p>	<p>The response is in-depth and question-specific (topic and command term); analysis and conclusion are justified through well-developed evaluation of evidence and perspectives.</p> <ul style="list-style-type: none"> • The response explains correct and relevant examples, statistics and details that are integrated in the response, explaining the appropriate link to the question. • The argument or analysis is balanced, presenting evidence that is discussed, explaining complexity, exceptions and comparisons. • Complex and relevant terminology is used correctly throughout the response.

Section A

1. Changing population

- (a) State the median age for Country B in the year 2000. [1]
29 (years). Accept 28–29.
- (b) State which country has the greatest projected increase in median age **between** 2010 and 2040. [1]
Country B
- (c) Explain **one** reason why the median age of a population could decrease. [2]

Award [1] for a valid reason for the decrease in median age and [1] for explanation of how it affects the median age.

Valid reasons (dependent on current median age) include:

- In-migration of youthful people/out-migration of elderly people.
- High birth rate/rise in birth rate/fertility rate will increase the proportion of younger population.
- Increased mortality among elderly population/decrease in life expectancy.
- Increase in death rate due to conflict decreases the proportion of independent population.

For example: The arrival of youthful economic migrants [1] means proportionately more younger people, reducing the median age [1].

- (d) Explain **one** environmental consequence of **one named** forced migration. **[3]**

The example could be internal displacement or refugees. Accept a broad interpretation of “environmental”, to include the built environment and landscape.

Identified and located example of a forced migration **[1]**. Identified environmental consequence **[1]**. Further developed explanation **[1]**.

Environmental consequence of migration may include:

- Deforestation
- Soil erosion
- Contamination of water supplies – rivers/groundwater
- Depletion of water resources
- Waste disposal
- Aesthetic damage
- Production of environments that breed disease
- Loss of biodiversity
- Air pollution
- Land degradation.

For example: Northern Cameroon hosts Nigerian refugees who have escaped violence **[1]** this has caused rapid deforestation **[1]** as refugees need firewood for cooking **[1]**.

For example: Lebanon has many Syrian refugees escaping war **[1]** the waste from informal settlements is often dumped in an uncontrolled manner **[1]** this leads to soil and water pollution **[1]**.

- (e) Explain **one** policy designed to prevent human trafficking.

[3]

Identification of a valid policy at societal, NGO, national or international level [1]; development with details on how it operated/operates [1] further development which may include why it was introduced or magnitude of the problem [1].

Policies may include:

- Accreditation schemes such as Fair Trade, Global Organic Textile Standard, Ethical Trading initiative decrease demand for cheap clothes that cause trafficking of labour in LICs
- Education of individuals to decrease demand for services provided by trafficked populations – “John Schools” in USA that are aimed at changing attitudes of sex buyers
- National Agency against Trafficking in Persons in Romania educates target groups to increase their awareness
- Travel restrictions – children not travel without parents’/parent’s signature *eg* Brazil
- Community activities such as vigilance groups in India that detect trafficked population in villages
- Prosecution of individuals/firms that use trafficked labour or groups that organize the trafficking of people by the National Crime Agency in UK
- Government legislation intended to curb trafficking *eg* Danish Criminal Code, Modern Slavery Act in UK
- Border controls such as border patrols by South African National Defence Force on SA’s northern borders
- International co-operation – UN Protocol against trafficking
- Improve the lives of vulnerable groups of people in LICs *eg* National Referral Mechanism (UK agency) improving women’s accessibility to work in Albania.

For example:

- Cambodia passed legislation in 2008 [1] that criminalizes all forms of trafficking for men, women and children [1]. Fines and prison sentences are applied to those convicted [1].

2. Global climate – vulnerability and resilience

- (a) Describe the regional distribution of high total greenhouse gas emissions from agriculture. [2]

Award [1] for each valid statement, up to a maximum of [2].

Possibilities include:

- concentration in East Asia/South East Asia/South Asia
- Western Europe/Northern Europe
- Central/Eastern USA
- almost entirely northern hemisphere.

- (b) Explain **two** reasons why increased **trade** by emerging economies has led to increased greenhouse gas emissions. [2+2]

Identification of a valid reason [1] and [1] for further development/exemplification of how it has led to an increase in GHG emissions.

Possibilities must be linked to increased trade and could include:

- Increased export of manufactured goods – increased greenhouse gas emissions from factories/industry producing these.
- TNCs locating manufacturing plants in emerging economies – local regulations may be more lax in terms of emissions.
- Increased trade results in increased greenhouse gas emissions from container shipping/aircraft/road transport of goods.
- Trade in emerging economies may be instrumental in improving standard of living – per capita greenhouse gas emissions increase due to increased consumption (meat, fossil fuels)
- Reliance of emerging economies on fossil fuels.

- (c) Explain how carbon offset schemes **and** carbon trading might lead to a global reduction in greenhouse gas emissions. [2+2]

Award [1] for explaining carbon offsetting and [1] for how it could reduce global emissions.

AND

Award [1] for explaining carbon trading and [1] for how it could reduce global emissions.

Example: Carbon offset schemes are designed to reduce or offset carbon emissions by funding activities and projects [1] such as tree planting or solar power which reduce emissions elsewhere [1].

Example: Carbon trading attempts to create a market in which emission permits issues by governments can be traded [1]. Companies that exceed their targets have to buy from those that do not – this market system attempts to limit emissions [1].

Award a maximum of [2] for a description of carbon emissions offsetting and carbon trading that does not explain how global greenhouse gas emissions can be reduced over time by this approach.

3. Global resource consumption and security

- (a) Describe what is meant by “embedded water”. [2]

Water resources that are used in the production of food and manufactured goods in one country/place [1] that are transferred to other, often water scarce, countries or regions via trading [1].

- (b) Explain **two** reasons why diets are changing in middle-income countries. [2 + 2]

Award [1] for identifying and describing a valid reason, with [1] for explanatory development.

For example: Rising incomes in middle-income countries have given more people sufficient disposable income [1] to incorporate more meat into their diets at the expense of vegetables and grains [1].

Other possible reasons include:

- Health awareness
- Advertising, especially by multinational food firms
- Environmental awareness
- Transition to global food systems
- Rapid urbanization and shift to energy-dense diets
- Real term fall in the cost of large number of foodstuffs
- Globalization/Westernization/Cultural homogenization/Role of TNCs

- (c) Suggest **two** ways in which declining water availability might threaten a country’s energy security. [2 + 2]

Award [1] identifying and describing a valid way, with [1] for explanatory development.

Possible ways include:

- less water for HEP production
- need to safeguard supplies of safe water might lead to fracking being banned
- falling availability of potable water may lead to increased need for desalination plants (with their heavy energy usage)
- lack of water needed for steam generation or cooling in thermal/nuclear power plants.
- lack of water for geothermal energy production – water used in drilling/water used in cooling/water required in enhanced geothermal systems that rely on artificially created reservoirs in rock formations that do not have enough natural fluid
- lack of water may lead to a decline in the production of Biofuels.

For example: Declining water availability might reduce the input of water into reservoirs in hydro-electric power generation schemes [1], so a country that is heavily dependent on hydro-power may be unable to generate as much electricity as previously and may be unable to meet demand [1].

Section B

4. (a) (i) Estimate the number of Syrian refugees that have settled in Pennsylvania (labelled X). [1]
- 102 (allow 101–103)
- (ii) Determine the increase in the number of Syrian refugees admitted to the US between 2013 and 2014. [1]
- 204 (Accept this answer only)
- (b) Using evidence from the population pyramid **only**, explain **one** possible challenge faced by the US government in resettling Syrian refugees. [2]

Identification of a valid challenge shown in the pyramid [1] quantification evidence from the population pyramid [1].

For example: There are challenges for education/schooling [1] as over 50% [51.1%] of the refugees are below 17 years of age [1] / 33.8% between 5 and 17 [1]

Other possibilities include:

- Challenges in creating employment opportunities [1] as 46% of working age [1].
- Challenge of high dependency ratio [1] – approximately 50% [54%] [1]

- (c) To what extent does the infographic offer a flawed representation of the scale of Syrian resettlement in the US?

[6]

The question is asking candidates to examine how well the infographic represents the scale of Syrian resettlement. Answers should focus on an appraisal of the flaws and strengths of the infographic in showing scale of resettlement and not a critique of style.

Award [1] for each flaw or strength and further [2] max for each supported development/explanation up to a maximum of [5].

Award the final [1] for a supported overall appraisal which weighs up the infographic as a whole.

Award maximum of [4] if only one perspective (flaw or strength) is given.

For example:

Flaws:

- The choropleth map does not give a true representation [1] as it does not give absolute numbers [1].
- It uses emotive language in the key, such as “high” [1], when the actual number of refugees arriving in each state is actually very small/insignificant [1].
- Only shows official figures [1] – others may have entered illegally [1].
- Bar chart does not give a true representation of the changes in the numbers admitted [1] as it does not show 2016 data [1] this indicates there was an actual decrease rather than constant increase shown in the graph [1].
- The choropleth map only gives a general picture of distribution in the USA [1] and does not show the distribution within the states [1].
- Age groups on pyramid not even [1] and do not give precise information about the demographic structure of refugees [1].

Strengths:

- It shows the actual numbers going to the US [1], which can be compared with the global number of Syrians displaced [1] which demonstrates that refugee numbers are quite small [1].
- The bar graph shows the temporal change in the numbers being resettled in the US [1]; can see how scale of resettlement is not really changing significantly [1].
- The map gives an accurate display of where the refugees have settled [1] and shows that large areas of the USA have low numbers or no refugees [1].
- The infographic shows accurate information [1] as the sources are reputable internet sites [1].

Overall appraisal can be found at the beginning or end of the answer and may be a comment such as: The infographic has some strengths but mainly demonstrates flaws.

Section C

5. “Of all the demographic challenges nations face, ageing is the most serious.” To what extent do you agree with this statement?

[10]

Marks should be allocated according to the markbands on pages 3 to 4.

Perspectives on what constitutes a demographic challenge will vary as they are likely to be place- and time-specific. Responses may tackle the question on a regional or global scale and a clear understanding of the terms “ageing population” (an increase in the percentage of the population over 65) and “demographic challenge” should be evident, although not explicitly outlined.

Possible **applied** themes (AO2) demonstrating **knowledge and understanding** (AO1):

- Ageing may produce demographic challenges that can be seen as negative such as socio-economic impacts, including dependency, grey economy, pensions, tax rates, health care *etc* [Unit 1:3]
- Ageing may produce positive socio-economic impacts such as employment opportunities, the grey economy, reduced crime rates *etc* [Unit 1:3]
- Other aspects of population structure may cause demographic challenges such as youthful populations, gender imbalances, needs of special groups (disability and HIV) [Unit 1:3]
- Population movements may produce demographic challenges – forced and voluntary migrations, rapid/large scale population growth in urban areas [Unit 1:2]
- Population change and resource consumption and neo-Malthusian ideas of over-population [Unit 3:3]

Good answers may be **well structured** (AO4) and may additionally offer a **critical evaluation** (AO3) which assesses the relative seriousness of the consequences of a population ageing in different places and the possibilities of managing ageing populations. Another approach might be to focus on other demographic challenges identified above and an explanation as to why these are very serious and ageing is less so.

For 5–6 marks

Expect some outlining of the consequences of an ageing population and/or an alternate demographic challenge. The response is partial, narrow or lacks supporting evidence.

For 7–8 marks

Expect a well-structured account which includes:

- either a well-evidenced synthesis which links together several well evidenced ageing and demographic themes from the Guide
- or a critical conclusion (or ongoing evaluation) informed by geographical concepts and/or perspectives.

For 9–10 marks

Expect both traits.

6. “Responding to climate change is more important than working towards the UN Sustainable Development Goals.” To what extent do you agree with this statement? [10]

Marks should be allocated according to the markbands on pages 3 to 4.

Responses may tackle the question on a national, regional or global scale and may also consider the time frame needed to achieve change. An understanding of climate change and the UN SDGs should be evident in the response. Responses may have valid different perspectives on what constitutes “important”.

Possible **applied** themes (AO2) demonstrating **knowledge and understanding** (AO1):

- The potential consequences of climate change such as sea level change, extreme weather, changes to agriculture, spatial changes in biomes, changing hydrology’s [Unit 2:2]
- The impacts of climate change on people and places such as health hazards and migration [Unit 2:2]
- The possibilities to respond to climate change
- Explanation of the purpose of the SDGs with a focus on some of the 17 goals such as gender equity, reducing hunger, and poverty. This may include an outline of how the SDGs operate to address issues of resource management [Unit 3:3]
- Explanation of the interaction between SDGs and climate change.

Responses may link the impacts of climate change on the potential outcome of some of the 17 goals. Alternatively, a response could see both as interlinked and show how both complement one another.

Good answers may be **well structured** (AO4) and may additionally offer a **critical evaluation** (AO3) which examines the statement in a way that shows understanding of the relative importance of climate change and SDGs. Another approach may comment on how the relative importance may vary between places. Some answers may examine the respective processes and possibilities of managing climate change and SDGs at different spatial and temporal scales.

For 5–6 marks

Expect some outline of climate change issues and/or the SDGs. The response is partial, narrow or lacks supporting evidence.

For 7–8 marks

Expect a well-structured account which includes:

- either a well-evidenced synthesis which links together several well-evidenced resource stewardship themes from the Guide
- or a critical conclusion (or ongoing evaluation) informed by geographical concepts and/or perspectives.

For 9–10 marks

Expect both traits.