

Markscheme

November 2025

Geography

Higher level and Standard level

Paper 2

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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> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; vertical-align: top;"> <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. </td> <td style="width: 33%; vertical-align: top;"> <ul style="list-style-type: none"> • No evidence of evaluation or conclusion is expected at this level. </td> <td style="width: 33%; vertical-align: top;"> <ul style="list-style-type: none"> • Information presented is not grouped logically (in paragraphs or sections). • Maps, graphs or diagrams are not included, are irrelevant or difficult to decipher (only if appropriate to the question). </td> </tr> </table>			<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. 	<ul style="list-style-type: none"> • No evidence of evaluation or conclusion is expected at this level. 	<ul style="list-style-type: none"> • Information presented is not grouped logically (in paragraphs or sections). • Maps, graphs or diagrams are not included, are irrelevant or difficult to decipher (only if appropriate to the question).
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3–4	<p>The response is too general, lacks detail, is not focused on the question and is largely unstructured.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; vertical-align: top;"> <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. </td> <td style="width: 33%; vertical-align: top;"> <ul style="list-style-type: none"> • If appropriate to the question, the conclusion is irrelevant. • There is no evidence of critical evaluation of evidence (examples, statistics and case studies). </td> <td style="width: 33%; vertical-align: top;"> <ul style="list-style-type: none"> • Most of the information is not grouped logically (in paragraphs or sections). • Maps, graphs or diagrams included lack detail, are incorrectly or only partially interpreted without explicit connections to the question (only if appropriate to the question). </td> </tr> </table>			<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. 	<ul style="list-style-type: none"> • If appropriate to the question, the conclusion is irrelevant. • There is no evidence of critical evaluation of evidence (examples, statistics and case studies). 	<ul style="list-style-type: none"> • Most of the information is not grouped logically (in paragraphs or sections). • Maps, graphs or diagrams included lack detail, are incorrectly or only partially interpreted without explicit connections to the question (only if appropriate to the question).
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<p>5–6</p>	<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. <ul style="list-style-type: none"> • If appropriate to the question, the conclusions are general, not aligned with the evidence presented and/or based on an incorrect interpretation of the evidence. • Other perspectives on evidence (examples, statistics and case studies) and/or strengths and weaknesses of evidence are listed. <ul style="list-style-type: none"> • Logically related information is grouped together (in sections or paragraphs) but not consistently. • Maps, graphs or diagrams included do not follow conventions, and include relevant and irrelevant interpretations in the text (only if appropriate to the question).
<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. <ul style="list-style-type: none"> • If appropriate to the question, the conclusion is relevant to the question, aligned with the evidence but unbalanced. • Other perspectives on evidence (examples, statistics and case studies) and/or strengths and weaknesses of evidence are described. <ul style="list-style-type: none"> • Logically related information is grouped together (in sections) consistently. • Maps, graphs or diagrams included contribute to/support the argument or analysis (only if appropriate to the question).
<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. <ul style="list-style-type: none"> • If appropriate to the question, the conclusion is relevant to the question, balanced and aligned with the evidence. • Evaluation includes a systematic and detailed presentation of ideas, cause and effect relations, other perspectives; strengths and weaknesses of evidence are discussed; (if appropriate) includes justification of the argument and conclusion. <ul style="list-style-type: none"> • Response is logically structured with discussion (and if appropriate to the question, a conclusion) focusing on the argument or points made, making it easy to follow. • Maps, graphs or diagrams are annotated following conventions and their relevance is explained and support the argument or analysis (only if appropriate to the question).

Section A

1. Changing population

- (a) Describe the pattern of average family sizes shown on the map. [2]

Award [1] for any relevant point, up to a maximum of [2] Candidates should quantify for full marks

Possibilities include:

- Highest in [south/southwest/southeast]
- Lowest in the northeast
- Increases from north to south
- Allow reference to anomalies e.g. Utah 3.58/ Idaho 3.20

NB Two elements of pattern plus valid quantification is required for full marks.

- (b) Suggest **two** reasons for the global trend towards smaller family sizes. [2+2]

Award [1] for the reason and [1] for development/ exemplification

For example: Cost of living/cost of raising children [1], high cost of education, healthcare, housing, and childcare are deterrents to having large families [1].

Other possibilities include:

- Financial insecurity [1] people are concerned about providing for larger families [1]
- Both parents often work [1] leaving less time and resources for large families [1]
- Increased urbanisation[1] living space is limited and expensive[1]
- Increased female education/careers [1] educated career women tend to marry later and have fewer children [1]
- Access to/awareness of contraception [1] easier access/awareness enable the planning/limitation of family size[1]
- Government policies [1] some countries promote smaller families[1]
- Prioritisation of quality of life[1] career goals, and personal freedom over large families[1].
- Delayed marriage/childbirth [1] fewer reproductive years [1]
- Reduced influence of religion/tradition [1] norms encouraging large families are weaker [1]
- Lower infant mortality [1] parents no longer feel the need to have many children [1]
- Social care/pensions [1] reduce dependence on children for old-age care [1]
- Changing economic structure [1] – move from agriculture to manufacturing/tertiary means fewer children are needed to work on farms [1]

- (c) Explain **two** ways in which an anti-natalist policy can be implemented. **[2+2]**

Award [1] for the identification of a valid way and [1] for explanation linking it to the implementation of an anti-natalist policy.

For example: Through education and access to contraception [1] governments can ensure that healthcare facilities and schools offer family planning services [1]

Other possibilities include:

- Financial penalties for large families [1] reduce welfare payments after a certain number of children/fines/taxes if go above child limit [1]
- Rewards for small families[1] offering benefits, tax reductions, cash for couples with one or two children [1]
- Promote female education [1] Educated women tend to marry later [1]
- Encourage career opportunities for women [1] work opportunities and gender equality delay childbirth [1]
- Set limits on family size/identified regulation [1] e.g. “One-Child Policy”/ forced abortions [1]
- Raise the legal age/require permission for marriage [1] reduces the number of childbearing years [1]
- Use media to promote small family norms [1] can highlight the advantages of smaller families [1]
- Better maternal and child health services[1] When parents are confident their children will survive, they have fewer [1]
- Access to legal abortion/sterilization services [1] helps control unwanted pregnancies[1]

2. Global climate — vulnerability and resilience

- (a) Outline the origin of short-wave radiation **and** long-wave radiation. [2]

Short wave radiation is emitted from the sun (incoming solar insolation) [1].
Long wave radiation originates from the Earth's surface and the atmosphere [1].

- (b) Suggest **two** ways in which human activity is increasing methane in the atmosphere. [2+2]

Award [1] for the reason and [1] for development/exemplification which explains the increase in methane

For example: Increased cattle ranching/livestock farming [1] leads to more release of gas by rumination/digestion [1].

Other possibilities include:

- Increased impact of humans on climate/climate change/Enhanced Greenhouse Effect leading to melting of permafrost [1] methane in organic matter released [1]
- Increased rice cultivation [1] in paddy fields microbes break down organic matter and release methane [1]
- Poor management of increased amounts of manure [1] anaerobic decomposition animal waste releases methane [1]
- Oil, natural gas and Coal extraction [1] methane leaks occur during drilling/ mining/processing/ transport [1]
- Fuel combustion from increased car ownership/demand for energy [1] methane escapes unburned during fossil fuel combustion [1]
- Growth of landfills [1] anaerobic decomposition of organic waste produces methane [1]
- More burning of forests and crop residues [1] incomplete combustion of organic material releases methane [1]
- Increased deforestation causing release of methane by microbes [1] – in exposed/waterlogged deforested soils methane results from breakdown of organic matter or loss of bacteria that act as methane sink [1]

NB: Needs to address increase in reason or explanation for 2 marks.

- (c) Explain **two** ways in which climate change may impact ocean transport. [2+2]

Award [1] for the climate change impact and [1] for how it impacts ocean transport routes.

For example: Melting Arctic sea ice [1] makes shorter polar shipping routes saving time/money [1]

Other possibilities include:

- Sea level rise [1] – higher sea levels can flood ports/docks – higher costs of maintenance [1]
- Extreme weather/ hurricanes at sea [1] – disrupt shipping routes, damage vessels, close ports, rough seas increase fuel/insurance costs [1]
- Changes in ocean currents/accelerate or weaken currents [1] – disrupt transport routes/increase or decrease costs [1]
- Introduction of environmental controls [1] – emission controls/cleaner fuels can increase costs [1]

3. Global resource consumption and security

- (a) Describe the relationship between Human Development Index (HDI) ranking and ecological footprint. [2]

Award [1] for any relevant point, up to a maximum of [2]. Candidates should quantify for full marks.

Possibilities include:

- There is a positive relationship/ as HDI increases, ecological footprint increases
- The relationship is strong.
- There is a cluster around the 'middle' values, such as Panama which has around 0.8 HDI and 3gha for ecological footprint.
- The USA can be considered an anomaly, with a disproportionately high ecological footprint of almost 8gha.

NB. Two elements of pattern plus valid quantification required for full marks.

- (b) Suggest **two** political reasons why some countries have difficulty reducing their ecological footprint. [2+2]

Award [1] for the reason and [1] for development/ exemplification linked to difficulty in reducing ecological footprint.

For example: Countries may have other priorities such as industrial development/job creation [1] and therefore the government will not invest in recycling schemes/conservation or reduction of fuel [1].

Other possibilities include:

- Dependency on fossil fuels [1] countries that rely on fossil fuels find it difficult to limit these industries [1]
- Political opposition/perceptions/short term thinking [1] – politicians focus on economic gains (to get votes) or reputations [1]
- Inequality between nations [1] – LICs say rich nations have produced the problem/they want to develop to support their population, rich nations dump waste on LICs [1]
- Weak government enforcement/guidance/corruption [1] – laws not enforced/developed, pollution and overuse continue [1]
- Influence of powerful industries/corporations [1] – pressurize government to weaken/delay regulations [1]
- Lack of international support/collaboration [1] – some countries lack funds/technology to implement green policies and rely on assistance [1]
- Public opinion/ perspectives/resistance [1] – voters oppose green policies for political/economic reasons. [1]
- Administrative problems [1] governments have difficulty in, cannot afford to implement strategies, find difficulty applying strategies to large populations [1]

- (c) Explain **two** ways in which changes to energy pathways can improve national energy security. **[2+2]**

Award [1] for the way the pathway has changed and [1] for development linked to improvement of national energy security.

For example: Diversity of energy supply [1] improve energy security if there is disruption to a specific source, such as oil or other fossil fuels [1].

Possibilities of changes to energy pathways include:

- Reduce reliance on imported energy/improve domestic production [1] – lower risk to geopolitical tensions/conflict [1]
- Improve resilience to natural disasters/climate change [1] – shift to renewables, decentralization of production to continue production if one area is impacted [1]
- Improve infrastructure/technology [1] – build new/modernize grids, production and storage to improve reliability, smart grids and battery storage balance supply and demand [1]
- Greater national energy efficiency [1] – improve efficiency of national grids e.g. smart grids, require low efficiency older production plants [1]
- Political partnerships / trade deals [1] – gives geopolitical stability as nations have shared interests [1]
- Invest in renewable energy [1] – less exposed to swings in price/more price stable [1]

Section B

4. (a) (i) State the direction from Herat to Kabul. [1]

East/ENE

- (ii) State the difference in population, in millions, between 2015 and 2022. [1]

7.3

- (b) Suggest **one** way in which the photograph shows evidence of how the level of economic development affects water availability. [2]

Award [1] for valid suggestion linked to the photograph with further [1] mark for development.

For example: The people doing menial tasks [1] carrying water using makeshift containers [1].

The people in the photograph have basic tools to carry water [1] indicating a lack of financial resources [1].

- (c) To what extent does the evidence in the infographic support the view that water insecurity in Afghanistan is the result of climate change? [6]

Award [1] for each valid point supported by evidence taken from the infographic, up to a maximum of [5].

Award a maximum of [4] if only one side of the argument is given.

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

For:

- Increase in drought/ Spatial importance of drought/ % of population suffering from drought
- Reduction in volume of water in rivers
- Future reduction of water is more than 2007-16

Against:

- Population growth
- National access to safe water/sanitation
- Urban/rural access to safe water
- Access to water from rivers originating in neighbouring countries
- In-country dams reduce flow downstream
- Poverty

Section C

5. “Physical factors are the most important causes of uneven population distribution at a national scale.”
To what extent do you agree with this statement? [10]

Marks should be allocated according to the mark bands.

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

- Responses should show an understanding that population distribution is influenced by a number of factors that include physical factors, economic factors, social factors, political factors and migration patterns.
- Responses should show an understanding of how physical factors provide positive and negative influences on population distribution. These factors could refer to climate, relief and vegetations. For example, areas with temperate climates, fertile soil, and abundant water tend to attract higher populations. Mountainous regions, deserts, dense rainforests and areas with extreme weather often have lower densities. Some candidates may refer to natural resources explaining how regions with valuable natural resources like minerals, oil, or fertile soils can attract populations for extraction and related industries. Reference may be made to accessibility with areas that have access to ports being more attractive to population whilst remote and isolated areas have sparser populations.
- Responses may refer to economic development and comment on areas that have industrial development attracting population whilst areas with limited economic opportunity have lower densities. This may be put into the context of core and periphery development.
- Some responses may refer to social factors and examine the concentration of population in areas that have quality educational facilities and high-grade healthcare. Other answers may reflect on cultural attractions for population. In some cases, social factors can be linked to political stability with reference to low densities in some areas that have been plagued by conflict.
- Some responses may reflect on the influence of political factors such as government policies and colonial influences. These comments may refer to the impact of conflict on population distribution or the contribution colonization may have had to transport and infrastructure systems that are factors that may give economic development that attracts population.
- When considering the extent of agreement candidates could adopt a variety of approaches. Some may review the relative importance of natural and human factors whilst others may focus on the importance of individual factors within the context of physical and human. An alternative approach would look at the role played by physical and human factors in different places. Some answers may look at the changing importance of factors over time and link this with the core-periphery model and migrations.

Good answers may be well-structured (AO4) and may additionally offer a critical evaluation (AO3) which focuses on the relative role of physical and human factors in the uneven distribution of population. Responses may address relevant key concepts in their discussion.

For 5–6 marks, expect a weakly-evidenced outlining of some physical and/or human factors in the uneven distribution of population.

For 7–8 marks, expect a well-structured account, which includes:

- either a well-evidenced synthesis which links together several themes from the guide and addresses both sides of the statement
- or a critical conclusion (or ongoing evaluation) informed by geographical concepts and/or perspectives.

For 9–10 marks, expect both traits.

6. “The most significant environmental impacts of climate change are on the hydrosphere.”
To what extent do you agree with this statement?

[10]

Marks should be allocated according to the mark bands.

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

- Responses should have an understanding of what elements of the environment are impacted by climate change [hydrosphere/biosphere/atmosphere].
- Responses should show an understanding of the impact of climate change on the hydrosphere. There may be comment on different elements of the hydrosphere with comment on water stored in the oceans and sea level changes. Some answers may refer to changes in the acidity of oceans. Candidates may also include refer to water in the form of ice with comment on changes in the amount of glacial ice, snow fields and permafrost. Some candidates may comment on changes to river regimes.
- There could also be reference to changes to the impacts of climate change on the atmospheric element of the environment. Comment could refer to temperature change, droughts and extreme weather events such as cyclones. Seasonal changes to rainfall could also be considered.
- Some answers may refer to the impact of climate change on geomorphic systems such as the impact of climate change on coastal systems and mass movement events.
- There is also the opportunity to discuss the impacts of climate change on the biosphere with changes in biomes, habitats and animal migration patterns. This could be linked to loss of biodiversity.
- The guide also refers to agricultural systems which allows comment on crop yields and soil erosion. In the context of significance
- When considering the extent of agreement candidates could adopt a variety of approaches. Some may review the relative impacts on different elements of the environment. An alternative approach would look at the relative impact in different places. Some answers may look at the interactions of change in different parts of the environment. Some candidates may focus on the ‘significance’ element of the question and refer to the magnitude impacts in different elements of the environment. Other answers may examine significance in the context of interactions such as comment on significance to specific groups – eg significance of hydrological, or other, impacts on agricultural production and those that rely on it.

Good answers may be well-structured (AO4) and may additionally offer a critical evaluation. (AO3) which focuses on the relative role of climate change in different elements of the environment. Responses may address relevant key concepts in their discussion.

For 5–6 marks, expect a weakly-evidenced outlining of the impacts of change on elements of the environment

For 7–8 marks, expect a well-structured account, which includes:

- either a well-evidenced synthesis which links together several themes from the guide and addresses both sides of the statement
- or a critical conclusion (or ongoing evaluation) informed by geographical concepts and/or perspectives.

For 9–10 marks, expect both traits.
