

# **Markscheme**

**May 2024**

**Geography**

**Higher and standard level**

**Paper 2**

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**Paper 2 Section C markbands**

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

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

## Section A

### Changing population

1. (a) (i) Estimate the percentage of governments globally that have raised pension age. [1]  
30 (allow 29–31)
- (ii) State the policy that has the smallest range of values for the regions. [1]  
Prevent abuse

- (b) Suggest **two** reasons why countries have different policies to manage the challenges of an ageing society. [2+2]

*Allow [1] for each valid reason why there are different policies and [1] for development or exemplification.*

For example: A more economically developed country would have more money to spend [1] on providing pensions to support the elderly population/policies to increase birth rate/reduce burden on working age group [1].

Other possibilities include:

- The culture of the country values old people – reduces the burden on governments.
- Type of government: free market versus state control – some countries have focus on private pensions which takes burden off the state.
- Political pressures from different age groups – ageing population may have voting power.
- Different size of ageing population/stages of demographic transition - an ageing population is not as much of a challenge in some countries as in others.
- Speed of ageing may differ/starting population age may be lower – where ageing is more rapid policies may be more severe/face greater resource constraints.
- Tax structures may be different – broader tax base may spread the cost.
- Different retirement ages – where retirement age is higher there may be less pressure.
- Past policy decisions – past systems e.g. pension schemes may shape direction of present/future policies.
- Migration – some countries can increase work force by allowing migration/some countries attract ageing population e.g. Spain.

- (c) Explain **two** ways in which voluntary internal migration could limit economic development. [2+2]

Award [1] for a way economic development is limited and [1] for development/exemplification.

For example: Source areas lose workforce/labour market disparities [1] so business finds it difficult to fill vacancies [1].

Other possibilities include:

- Source areas lose revenue from taxes - less investment
- Destination areas are overcrowded so services are put under stress – costs of transport, education, healthcare.
- Destination areas have employment pressure – unemployment/wasted labour supply/growth of informal jobs that do not pay taxes
- Funds are diverted to deal with the migrants

- Less spending locally in source regions
- Brain drain – may concentrate skill works in certain regions/urban centres/loss of entrepreneurial skills.
- Increased housing costs – affordability for low- and middle-income groups

## Global climate – vulnerability and resilience

2. (a) Describe the changing distribution of oak–hickory forest. **[2]**

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

Possibilities include:

- Moves north/less in south
- Increases in the northeast
- Decreases in west/central USA/increases in the east
- Covers a larger area
- Becoming more coastal
- Greater amount on the border with Canada
- Less fragmented

- (b) Explain **two** different reasons for an increase in methane gas emissions. **[2+2]**

In each case, award **[1]** for a valid reason for increase and **[1]** for development/exemplification that explains the increase in release of methane.

For example: increased burning of fossil fuels releases methane **[1]** and this is due to population growth/industrialization/increased wealth **[1]**.

Other possibilities include:

- increased temperatures **[1]** lead to melting of Arctic permafrost where methane is stored **[1]**.
- Increased landfill – anaerobic decomposition of organic waste releases methane
- More land used for rice farming – methane produced by microbes in the soil.
- Higher numbers of livestock farms – methane produced by ruminants as part of digestive processes.
- Leakage from fossil fuel industry – fracking releases methane into atmosphere/mining releases methane from coal measures and surrounding rocks
- Deforestation – release of methane by microbes in exposed soils
- Natural sources – volcanoes/deep sea mud volcanoes/ meltwater from glaciers
- Increase traffic e.g. cars/planes/shipping – fuel used releases methane.
- Growth of GMC – the changing diets increase consumption of meat which releases methane in production/increase in use of gadgets uses electricity that produces methane in production/use of cars.

- (c) Explain **two** geopolitical strategies used to reduce the effects of climate change. **[2+2]**

Geopolitical strategies [linked to international relations] can address reduction of emissions, mitigation or adaptation.

In each case, award for **[1]** a valid geopolitical strategy and **[1]** for development/exemplification of *geopolitical strategy* that reduces the effects of climate change.

For example: Inter-governmental meetings e.g. COP **[1]** to agree cuts in carbon emissions to reduce global warming **[1]**.

Other possibilities include:

- Carbon trading between governments – EU Emissions Trading System/creates financial incentive to reduce emissions.

- Carbon offsetting policies – regional regulations of the aviation industry to reduce carbon emissions e.g. ICAO
- Multi-government government incentives to plant trees – capture carbon
- Geopolitical strategies to promote renewable energy – EU solar energy strategy.
- Technology transfer/collaboration – sharing expertise and technology partnerships e.g. advanced battery development.
- Support for vulnerable countries to overcome effects – financial support for infrastructural resilience/green finance to promote investments in sustainable energy in LICs.
- International institutions (IPCC/UN) – reports provide evidence. UN SDG goal 13 to reduce emissions



## Global resource consumption and security

3. (a) Describe what is meant by resource stewardship. [2]

The responsible/sustainable use of resources/so that they may be available for all [1] / continue to be used into the future [1].

*Accept other valid definitions/wording about sustainable use/management of resources.*

- (b) Suggest **two** ways in which economic development may lead to an increase in the availability of food. [2+2]

*In each case, award [1] for how economic development increases availability of food and [1] for explanation/exemplification.*

For example: Advanced/improved technologies e.g. vertical farming [1] lead to increased numbers of harvests per year / yields per hectare [1].

Other possibilities include:

- Expansion of agricultural land - GMOs allow for production in previously marginal areas/irrigation schemes.
- Expanded trade - importing different types of food from further away is possible.
- Improved farming practices – soil conservation, pest management etc increase food production.
- Investment in education and training – improved knowledge and skills/technologies/decision making.
- Demand for higher value food with rising incomes – incentivizes farmers.
- Infrastructural development such as storage and transport – increases market access/food availability via distribution.

- (c) For **one named** country, explain **two** factors that negatively affect energy security. [2+2]

*In each case, award [1] for the factor that affects energy security and [1] for explanation/exemplification that is relevant to the named country.*

Max [2] if no country identified or if country not relevant to factors identified. Both factors should relate to the same country.

For example: (named country UK) Reduced availability of North Sea oil and gas supplies [1] due to diminishing discoveries/reserves/resource depletion [1].

Other possible factors include:

- Disruptions to pathways e.g. pirates
- Political decisions to close gas pipelines/storage facilities – decreases reserves
- Price volatility/market instability - price hikes in oil/gas due to speculation
- Conflict in supply regions e.g. Middle East - reduces supply/increases price
- Climatic factors affecting wind/solar production – intermittent production.
- Population growth/economic development in China – demand outstrips supply
- Natural disasters/hazards – earthquakes disrupt supply chains/cause outages.
- Energy dependence/import reliance – increase supply vulnerability due to disruption.
- Environmental regulations/concerns can constrain production in certain areas/sectors – e.g. transition to clean energy sources.
- Energy poverty – inadequate access to modern energy sources for certain sections of society

- Limited domestic resources/narrow energy mix – e.g. South Sudan
- Economic issues result in lack of investment in infrastructure/ability to afford some forms of energy – hinders ability to meet energy needs.
- Rapidly growing economy – surge in energy demand that cannot be met.
- Cybersecurity threats – can disrupt supplies and cause blackouts.
- Global climate change reduces water supplies – impacts on availability of HEP

## Section B

4. (a) Describe the changes in sustainable clothing sales revenue in the United Kingdom (UK) from 2014 to 2020. [2]

- Decrease (of approx. 3 million) 2014-15 [1]
- Increase (approx. 28 million) from 2015 to 2020 [1]
- 2018-20 slower rate of increase [1]
- Overall increase [1]

*Some quantification of either/both points needed for full marks.*

- (b) Suggest **one** way in which the survey of city populations that supported sustainable fashion could be biased. [2]

*Award [1] for a valid suggestion and [1] for further development.*

Possibilities include:

- Only selects a small number of cities
- Cities do not represent all geographical areas
- Cities not taken from LICs
- Cities not representative of all types of city – they are tourist cities that may not have a typical demographic

Answers should be related to resource showing the 5 major global cities.

For example: The cities do not have any examples from South America or Africa [1] which means that the views of people on these continents are not represented. [1]

- (c) To what extent does the evidence in the infographic support the view that the impacts of sustainable fashion are all positive? [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. Valid point must be an interpretation of information and not just a straight lift from the resource.*

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

*Support*

- *Ethical clothing sales are on the increase/revenue from sustainable clothing sales.*
- *Has positive impact on the environment*
- *More sustainable use of resources*
- *Reduce amount sent for incineration and landfill*
- *Support from large cities for sustainable fashion*
- *Growth in purchases from all age groups*

*Non-support:*

- *Lots of jobs in fast fashion*
- *Gender – taking away jobs of women*
- *Support for families at home*
- *Cheap fashion important for GDP*
- *Support varies with ages*
- *Some countries do not produce much waste*

- *Not all places have same level of support – low in western cities*

Do not credit simple quoting of data from. the resource – it needs to be given a context.

For example: The information in the infographic supports the view that the impacts of sustainable fashion are positive as it shows the revenue from sales in the UK have increased. **[1]** They have risen from 32 million GBP in 2014 to 58 million in 2020. **[1]** All age groups have increased their purchases of second-hand clothing. **[1]** However the impacts have not been positive for the economy of Cambodia **[1]** as disposable fashion is 16% of their GDP and employs a large number of women in the industry **[1]**. Overall, however sustainable fashion has a positive impact **[1]**.

### Section C

5. “The consequences of megacity growth are mainly felt by individuals.” To what extent do you agree with this statement? [10]

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

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

- Responses should show knowledge and understanding of the challenges that are the result of megacity growth. These can be seen as: social – poor quality housing, health, wealth gap, poverty, crime and public safety; economic – unemployment, underemployment, economic development, rising costs of living; environmental – air pollution, general pollution, water pollution; infrastructural – transport provision, congestion, water supply, electricity
- Responses should show knowledge and understanding of the above consequences on individuals and societies e.g. the impacts of megacity growth may provide job opportunities for individuals whilst providing economic growth for societies, poor individuals have to live in slums whilst society has to deal with consequences of poor housing such as water pollution or increased crime.
- Responses should show knowledge and understanding of the positive and negative consequences of megacity growth
- Responses should show knowledge and understanding of the consequences for both urban and rural areas – rural depopulation, brain drain, demographic changes

Good answers may be well-structured (AO4) and may additionally offer a critical evaluation (AO3) which focuses on the relative impacts of megacity growth on individuals. Responses may focus on a comparison between individuals and society, impacts on individuals with different wealth profiles and impacts on individuals in different places [urban/rural]. Some answers may compare different types of impact – e.g. social v environmental. Some answers may compare the impacts in place with different levels of development or rates of development. Some answers may comment on temporal variations of impacts as rates of megacity growth vary.

**For 5–6 marks**, expect a weakly-evidenced outlining of some of the impacts.

**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 acknowledges more than one side of the argument
- Or a critical conclusion (or ongoing evaluation) informed by geographical concepts and/or perspectives.

**For 9–10 marks**, expect both traits.

6. “The effects of global climate change are uneven across the world.” To what extent do you agree with this statement? **[10]**

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

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

- Responses should show knowledge and understanding of the characteristics of climate change – hotter temperatures, extreme weather events, increased drought
- Responses might show knowledge and understanding of the effects of climate change on environmental systems and how these are uneven in different parts of the world – glacier melt, sea level rise, ocean acidification, saltwater incursions, shifting biomes, changing migration patterns, wildfires, expansion of deserts, floods
- Responses might show knowledge and understanding of the effects of climate change on individuals, communities and societies – health, food security, water security, migration, mortality, ocean transport, economic development
- Responses could show knowledge and understanding of how environmental and human effects are uneven over space – regional variations, biome variations, hemispheric variations.
- Responses could show knowledge and understanding of how effects are uneven between places at different stages of development
- Responses could show knowledge and understanding of how effects are uneven between genders and age groups
- Responses could show knowledge and understanding of how some places and societies will be impacted similarly, e.g. gender / wealth / similarities in low-lying places

Good answers may be well-structured (AO4) and may additionally offer a critical evaluation (AO3) which focuses on the relative impact of climate change on environmental and human systems. Other critical evaluation may refer to spatial variations in impacts such as a comparison of nations/regions. Some answers may comment on temporal variations of success.

**For 5–6 marks**, expect a weakly-evidenced outlining of some of the effects of climate change on different places and people.

**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 acknowledges both sides of the argument
- Or a critical conclusion (or ongoing evaluation) informed by geographical concepts and/or perspectives.

**For 9–10 marks**, expect both traits.

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