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Geography

Higher level and standard level

Paper 1

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Core theme – patterns and change

Section A

1.   Populations in transition

(a)   (i)   Identify which country has greater gender equality.   **[1]**

country B

(ii)   Using data from the graph, describe how gender equality in country A differs from the world average.   **[3]**

For full marks, responses must comment on at least three of the four indicators and make some reference to data.

Possible statements:
- economic participation and opportunity – country A (0.80) is scoring better than the world average (0.60)
- political empowerment and health and survival – country A is almost the same as the world average at (0.2) and (1.00) respectively
- educational attainment – country A (0.60) falls well below the world average (0.90).

(b)   Suggest **two** possible reasons why women in countries like country B have a high level of political empowerment.   **[2+2]**

*In each case, award **[1]** for a valid reason, and **[1]** for further explanation, exemplification and/or detail.*

For example: Country B could have a quota system **[1]** that guarantees a minimum percentage/number of positions in government for women **[1]**.

Other possibilities could include:
- affirmative action policies
- women's rights advocacy groups
- state encouragement of female education up to tertiary levels
- large percentage of women in the civil service
- a female head of state could encourage more female involvement
- an education system that boosts confidence in girls and women.

Do not accept responses that country B is more developed – this is unfortunately not accurate and also too vague an answer.

(c)   Explain **two** reasons why the life expectancy in many low-income and
       middle-income countries is increasing.   **[2+2]**

*In each case, award [1] for a valid reason, and [1] for further explanation,
exemplification and/or detail.*

For example: Improved water quality **[1]** reduced cases of water-borne
diseases **[1]**.

<u>or</u>

Access to antiretroviral therapies **[1]** increased life expectancy in many Sub-
Saharan nations **[1]**.

Other possibilities could include:
• better access to healthcare
• improved reliability of water supplies
• the work of civil societies and MGOs such as MSF/WHO
• improved food security and access.

2. Disparities in wealth and development

(a) Describe how the **percentage of total financial aid** varies between the regions on the graph. **[3]**

Three valid descriptions are needed and there must be some reference to data for the award of the full [3] marks.

Possibilities could include:
- Sub-Saharan Africa has the greatest percentage of total financial aid at 45 %
- Southeast Asia has the smallest percentage of total financial aid at less than 5 %
- only two regions get above 10 % of total financial aid
- all other regions below 10 %.

Award up to a maximum of [2] for a simple list with values.

(b) Suggest **two** reasons why poor people in Sub-Saharan Africa do not receive very much financial aid per person. **[2+2]**

Award [2] for each valid reason, provided it is developed by means of explanation, exemplification and/or detail.

For example: Number of poor people (population in need) is so large **[1]** that the financial aid/money when divided amongst them ends up being very little **[1]**.

Other possibilities could include:
- some of this aid may be being used to pay off external debts
- aid may reach only certain groups/regions
- corruption may result in little trickle down
- may be tied aid
- aid may be used for projects other than to help alleviate poverty.

(c) Explain how remittances can improve the quality of life of recipients. **[4]**

An understanding of what remittances are should be included, this can be clearly stated or implied **[1]**. There also needs to be a statement that explains how this increases the income of the recipients/families in the country of origin **[1]**. The remaining **[2]** marks should be awarded for explaining how the money can be used to improve the quality of life of the recipients. This can be a simple explanation of two "ways", or one "way" that is developed through extension/exemplification.

Possibilities include:
- encourages saving
- used to support extended family
- improved children's education
- access to healthcare
- home improvements
- big screen TVs, white goods, *etc*.

3. **Patterns in environmental quality and sustainability**

(a) Rank the **three** countries with the largest areas of rainforest from highest to lowest. **[2]**

DRC > Gabon > Congo **[2]**

This is the only acceptable answer.

(b) Referring to the data in the table, describe the trend in rainforest loss between the 1990s and 2000s. **[3]**

In general, the rate of loss increased in almost all countries between the two time periods **[1]**.

*Each of the following statements merits an additional **[1]**, up to a maximum of **[2]**:*
- Equatorial Guinea reduction to zero
- Gabon reduced rate by 0.10
- the Democratic Republic of the Congo has increased the most – more than doubled.

There must be some reference to data for full marks.

(c) Explain **three** reasons why it is important to maintain the biodiversity of tropical rainforests. **[2+2+2]**

*For each reason, award **[1]** for identifying and/or describing a valid reason, and **[1]** for explaining its importance in terms of **biodiversity.***

For example: It is good for ecotourism **[1]** because of a wide variety of species for visitors to see **[1]**.

Other possible reasons include:
- ecosystem services (soil, water, habitats)
- water filtration / nutrient recycling / climate amelioration
- biological resources (food, medicine, genetic stock, breeding stock)
- aesthetic value (tourism, appreciation of need to conserve)
- ethical value (role/responsibility of people in preserving planetary ecosystem and preventing loss of endemic species of flora and fauna)
- cultural benefits (recreation / cultural integrity of indigenous groups).

The second mark should not be awarded for generic answers that do not link clearly to biodiversity.

4. **Patterns in resource consumption**

(a) State the minimum ecological footprint in global hectares for a country with a GNI of US$20 000 per person. **[1]**

Accept 2.1 to 2.2 **[1]**

(b) Referring to the graph, describe the relationship between GNI per person and ecological footprint. **[3]**

*Award **[1]** each for any three of the following:*
- positive relationship or description that matches positive
- identifying an anomaly
- a valid comment about spread/range
- a clustering of nations with low values for both variables.

Three valid descriptive points are needed and there must be some reference to data for full marks.

(c) Suggest **one** reason why country A does not fit the general pattern. **[3]**

*Award **[1]** for identifying how it does not fit the trend eg higher GNI per person than would be expected given its ecological footprint.*

*Award **[2]** for identifying and developing/exemplifying a valid reason such as:*
- very good environmental policies **[1]** including things like recycling/less landfill **[1]**
- highly efficient area-intensive agriculture **[1]** which leads to high yields and involves the use of a smaller land area **[1]**
- low use of fossil fuels **[1]** due to access to renewable energy **[1]**.

(d) Using examples, distinguish between recycling and resource substitution. **[4]**

*Award **[1]** for showing an understanding of recycling, **[1]** for showing an understanding of resource substitution, and **[2]** for examples.*

For example: Recycling is when old newspapers are processed to make new paper products, whereas resource substitution involves finding a new resource to replace an existing or depleted one, *eg* using ethanol instead of petrol. **[4]**

Section B

Level descriptor	AO1 Knowledge/ understanding	AO2 Application/ analysis	AO3 Synthesis/ evaluation	AO4 Skills	Paper 1 Section B Marks 0–15
A	No relevant knowledge; no examples or case studies	No evidence of application; the question has been completely misinterpreted or omitted	No evaluation	None appropriate	0
B	Little knowledge and/or understanding, which is largely superficial or of marginal relevance; no or irrelevant examples and case	Very little application; important aspects of the question are ignored	No evaluation	Very low level; little attempt at organization of material; no relevant terminology	1–3
C	Some relevant knowledge and understanding, but with some omissions; examples and case studies are included, but limited	Little attempt at application; answer partially addresses question	No evaluation	Few or no maps or diagrams, little evidence of skills or organization of material; poor terminology	4–6
D	Relevant knowledge and understanding, but with some omissions; examples and case studies are included, occasionally generalized	Some attempt at application; competent answer although not fully developed, and tends to be descriptive	No evaluation or unsubstantiated evaluation	Basic maps or diagrams, but evidence of some skills; some indication of structure and organization of material; acceptable terminology	7–9
E	Generally accurate knowledge and understanding, but with some minor omissions; examples and case studies are well chosen, occasionally generalized	Appropriate application; developed answer that covers most aspects of the question	Beginning to show some attempt at evaluation of the issue, which may be unbalanced	Acceptable maps and diagrams; appropriate structure and organization of material; generally appropriate terminology	10–12
F	Accurate, specific, well-detailed knowledge and understanding; examples and case studies are well chosen and developed	Detailed application; well-developed answer that covers most or all aspects of the question	Good and well-balanced attempt at evaluation	Appropriate and sound maps and diagrams; well structured and organized responses; terminology sound	13–15

5. "Falling fertility rates are no guarantee of reduced resource consumption." Discuss this statement, referring to examples. **[15]**

There are many possible approaches to this question, and each should be marked on its merits.

It would be expected that responses show a clear understanding of fertility rates. This can be defined, stated or implied. It would also be expected that most responses agree with the statement. Even though fertility rates are falling (global fertility is 2.5 in 2013), population momentum and increased longevity mean populations are still growing significantly in most regions. Many Sub-Saharan nations still have predicted doubling times of less than 30 years (*eg* Ethiopia), despite falling fertility. So falling fertility does not immediately equate with fewer people consuming fewer resources.

There should also be some understanding that when fertility does fall it is generally as a result of, or goes hand in hand with, increases in the standard of living. In the present development paradigm this is associated with increased consumption of resources. Falling fertility is thus often accompanied by an increase in a country or region's ecological footprint.

There are some obvious long-term benefits of falling fertility such as the need for smaller houses, possibly resulting in less pressure on resources and space. Responses could also look at some of the issues related to fertility rates falling below replacement level but their answer must be in relation to how this impacts upon resource consumption.

Responses should make use of examples but responses that focus on describing population policies in some nations and not the consequences of falling fertility rates on resource consumption in that country will be self-limiting as this is not the question.

For band D expect some description of costs and benefits of falling fertility rates on resource consumption. This need not be balanced.

For band E expect some explanation of costs and benefits of falling fertility rates on resource consumption and there should be some attempt at an evaluation of the statement.

For band F expect some explanation of costs and benefits of falling fertility rates on resource consumption and there should be some attempt at an evaluation of the statement, with effective use of examples.

Marks should be allocated according to the markbands.

6. "Global climate change will increase disparities in development." Discuss this
statement, referring to examples.   **[15]**

There are many possible approaches to this question, and each should be marked on
its merits.

It is hoped that candidates will interpret global climate change as having a wider
meaning than "global warming". The disparities in wealth and development may be
considered at any scale: regional, national or sub-national. Disparities can be spatial
but they can also refer to different groups within areas. It is anticipated that responses
will refer to some of the consequences of climate change – many of which are already
evident. These consequences then need to be built upon in terms of how they impact
upon wealth, gender gaps.

Responses at band D are likely to provide descriptive, possibly anecdotal, accounts of
the links between global climate change, wealth and development, with only limited
attention paid to the idea of disparities, and little or no attempt made to contest the
statement.

At band E, responses will either focus their attention on the issue of disparities or begin
to contest the statement. For example, they might demonstrate a clear understanding
of disparities, possibly by comparing or contrasting the likely impacts of global climate
change in different countries or in different regions of the same country; or effectively
contest the idea that global climate change will increase disparities by offering
arguments or examples where disparities are likely to be reduced.

At band F, responses will incorporate both these elements, and offer an
evidence-based conclusion/evaluation of the statement. The discussion of cases
where disparities will be increased and cases where they will be decreased need not
be equal in depth for the award of full marks.

Marks should be allocated according to the markbands.

7. "Only high-income countries can effectively develop sustainable sources of energy."
Discuss this statement, referring to examples.   **[15]**

There are many possible approaches to this question, and each should be marked on
its merits.

It is expected that candidates will mention more than one type of sustainable energy
and attempt to distinguish between them. The question also demands some
comparison between high-income and low-income countries in terms of the uptake of
sustainable energies/renewables.

Many responses may look at the successful strides many lower income nations are
making in the effective use of renewables such as India with biogas, China with hydro
electric power and solar energy, and Brazil with ethanol.

Responses at band D are likely to provide a descriptive account of sustainable sources
of energy and their merits, without any real attempt to link the discussion to examples
that reveal the idea that adopting sustainable sources of energy could be regarded as a
costly venture that only high-income countries can afford. Responses at this level may
conclude that some forms of sustainable energy are less costly than others to introduce
and implement.

At band E, responses are likely to demonstrate <u>either</u> a clear understanding that
changing to sustainable sources of energy implies significant economic and possibly
social costs, but that such a change is essential for development to be ecologically
sustainable <u>or</u> contest the statement by, for instance, offering examples that
demonstrate that even some non-wealthy countries have made great strides in
changing to sustainable sources of energy.

At band F, responses should incorporate both these ideas, though not necessarily in
equal depth, and should provide a conclusion that matches the arguments advanced.

Marks should be allocated according to the markbands.