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MARKSCHEME

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GEOGRAPHY

Higher Level and Standard Level

Paper 1

Core Theme – Patterns and Change

SECTION A

1. **Populations in transition**

    (a) **Describe the predicted population structure of this country in 2025.**   *[3 marks]*

    The pyramid exhibits a broad base / youthful structure *[1 mark]*. Concave shape / rapidly tapering / chimney effect *[1 mark]*. A further *[1 mark]* for quantification or further observation *e.g.* a comment on the uneven sex ratio / identification of a high (youthful) dependency ratio.

    Do not credit explanatory answers.

    (b) **Distinguish between a population projection and population momentum**.   *[2 marks]*

    Population projection is an estimate/prediction of a future population *[1 mark]*.
    Population momentum refers to population growth/decline which continues despite fertility rates falling/increasing *[1 mark]*.

    (c) **Explain the economic impacts of an ageing population on a named country.**   *[5 marks]*

    A valid country should be chosen as an example *[1 mark]*.

    Award *[1+1 marks]* for each valid **economic** impact, provided that it is developed by means of explanation or detail.

    Possible impacts could be: increased dependency ratio; potential shortage of labour; reduced revenue from taxation; reduced savings/investment; increased demand on state pensions; increased demand on services/welfare for the elderly; increased insurance premiums; lower economic growth; introduction of mandatory pension schemes; issues of younger family members having to care for the elderly.

2. **Disparities in wealth and development**

(a) **With reference to the graph, describe the regional trends in the progress made towards meeting the 2015 target.** *[3 marks]*

Developed regions have experienced a very slight decrease over the 15 year period *[1 mark]*. Developing regions have experienced an increase over the 15 year period but are further from the targeted 100 % *[1 mark]*. Other valid trends should be credited. Some quantification is needed for the final *[1 mark]*.

(b) **Suggest *two* reasons why developing regions have made good progress towards meeting this MDG.** *[2+2 marks]*

Two reasons should be identified and explained for *[2+2 marks]*.

For example:
"Increased government investment in education *[1 mark]* increases the number of schools so the percentage enrolled in education has risen *[1 mark]*."

Other reasons could be: more schools being built using international aid money; the work of civil society and governments in increasing the number of girls attending school which will impact on overall numbers; rapid urbanization is making schools more accessible to the children of former rural populations; debt relief allowing governments to spend more money on education.

(c) **Explain how progress in education can help regions advance towards meeting *one* other MDG.** *[5 marks]*

Award *[1 mark]* for identifying a valid MDG (eradicate poverty and hunger; promote gender equality; reduce child mortality; improve maternal health; combat disease; environmental sustainability; develop a global partnership).

The rest of the response should look at how progress towards increased primary education will help a country/region progress towards meeting that MDG. Award *[1 mark]* for each basic explanation, with additional *[1 mark]* for extension and/or exemplification. Possible *[4×1 marks]* or *[2×2 marks]*.

Possible explanations will be determined by the MDG chosen.

For example:
MDG reduced child mortality *[1 mark]*.
As female literacy rates increase through primary education, infant and child mortality rates tend to fall *[2 marks]*.
Literate women are more knowledgeable about primary health care *e.g.* Kerala India *[2 marks]*.

3. Patterns in environmental quality and sustainability

(a) **State *one* physical factor and *one* human factor not shown on the diagram that contribute to a loss of biodiversity.** *[2 marks]*

Award *[1 mark]* for each factor.

Possible **physical** factors include: natural hazards such as floods, disease, droughts, volcanic eruptions, fires.
Possible **human** factors include: deforestation, mining, expansion of agricultural areas, expansion of settlements, overexploitation of susceptible species leading to their extinction.

(b) **Explain how any *one* of the factors *given on the diagram* contributes to a loss of biodiversity in tropical rainforests.** *[4 marks]*

The explanation will depend on the factor chosen, but should provide details of precisely how the factor can contribute to a loss of biodiversity, as opposed to simply causing or leading to deforestation. Award up to *[2 marks]* for explanations of the factor *e.g.* causes of deforestation, reserving the final *[2 marks]* for comments which show a clear understanding of how this reduces biodiversity.

No credit may be given for explanations of a second factor, or for explanation of any factor not shown on the diagram.

(c) **Explain *three* reasons why biodiversity in tropical rainforests should be preserved.** *[3×2 marks]*

Award *[1 mark]* for each basic explanation, with additional *[1 mark]* for extension and or exemplification.

The reason for preservation MUST be linked to biodiversity.

Possible reasons include: the economic value of plant and animal species found therein; the importance of biodiversity in maintaining a healthy forest structure, with its implications for watershed protection; the importance of a healthy ground cover for soil protection; enhancing the value of rainforests for ecotourism; conserving global genetic diversity; concepts of stewardship/environmental ethics.

4.   Patterns in resource consumption

(a)   Identify and rank the top *three* renewable sources of energy shown on the graph from highest to lowest.   *[2 marks]*

The top three are: Biomass, Hydro and Geothermal, in that order *[2 marks]*. Award *[1 mark]* if all three are identified, but not ranked correctly, or if any one of the three are incorrectly identified. No credit may be given if only one of the three is correct.

(b)   Suggest *two* reasons why some areas of the world are unlikely to depend entirely on renewable energy sources.   *[2×2 marks]*

Award *[1 mark]* for each basic reason, with additional *[1 mark]* for extension and/or exemplification.

Answers can suggest reasons with validity at any scale: local, regional or national. Possible reasons include: abundant reserves of fossil fuels; insufficient capital to develop alternative energies; conscious decision to rely on nuclear power; need for portable, emergency sources of power; lack of sufficient opportunities for renewable energy; lack of political will; lack of local conditions for any renewable energy.

(c)   Analyse how the global pattern of oil production has changed in recent decades.   *[5 marks]*

Answers may focus on spatial and/or temporal changes.

Answers should refer to sub-global regions in terms of how production is changing over time, and/or how it is changing as a proportion of the world total. Many responses will focus on the "peak oil" scenario. There should be some comment on how demand and price is driving the exploitation of oil in remote and/or previously uneconomic sources *e.g.* further off shore or tar sands in Alberta, Canada. Award up to *[2 marks]* for valid descriptions of changes *[2 marks]* for related analysis with the final *[1 mark]* being reserved for either.

SECTION B

5. **Discuss the ways in which the consumption of *one or more* resources can be reduced.**   *[15 marks]*

    The main ways in which the consumption of resources can be reduced are by reducing demand (by changing pricing, access or availability), by changes in habits of recycling, reuse (government policy, civil society demand, education, fiscal incentives, legislation, change in societal values), by resource substitution, and conservation. The relative importance of these will depend on the resource (and location/s) discussed.

    Responses that arrive at a clear conclusion, after a sound discussion with a specific resource/resources referred to, are likely to be awarded band E or above.

    Marks should be allocated according to the markbands.

6. **"It is impossible to eliminate disparities in wealth and development." Discuss this statement.**   *[15 marks]*

    This question may be considered from any scale: global, regional or national. It is possible to gain full marks looking at a single scale (it is also possible to score highly with a mainly social rather than spatial analysis).

    Candidates are expected to demonstrate a clear understanding of the three key terms – disparities, wealth and development – in their answers, though they may choose to take as wide a view as they like of such concepts by including, for example, non-economic wealth, or social rather than economic development.

    It is expected that answers will include a variety of different strategies designed to help reduce disparities, both in favour of, and against, the statement and will offer substantiation by means of detail or examples for the ideas presented.

    Responses that arrive at a clear conclusion either agreeing or disagreeing with the statement, after a sound discussion including both sides of the issues, are likely to be awarded band E or above.

    Marks should be allocated according to the markbands.

7. **Examine the view that gender inequalities are a major obstacle to development.**   *[15 marks]*

There are many possible approaches to this question.

Responses could explain what development is and successfully link the concept to increased gender equality.

Responses are likely to identify and discuss the relative importance of all the MDGs that in some way relate to gender empowerment (Goals 1, 3, and 5 especially).

The answer should examine either how not addressing gender issues will hinder development or explain how addressing them will help nations and communities develop. Allow for broad interpretations of development. Candidates could also identify other factors (other than gender inequality) which are also obstacles to development – this would be a valid approach as long as gender inequality is examined and their reasoning is justified.

Responses that arrive at a clear conclusion either agreeing or disagreeing with the viewpoint, after a sound discussion, are likely to be awarded band E or above.

Marks should be allocated according to the markbands.