Pearson Edexcel

Mark Scheme

Winter 2020

Pearson Edexcel IAL
In Geography (2001)
Paper 4: Geographical Research

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Question 1 – Evaluate the view that the level of development is a more important factor than the magnitude of the hazard in explaining their impact.

- Research why tectonic hazards have different impacts on contrasting locations
- Research a range of disasters to examine the importance of hazard magnitude, socio-economic and geographical factors in explaining their effects.

Indicative content

The focus of this title is the complex relationship between hazards and the disasters that sometimes ensue – the research foci identify the need to understand the varied outcomes and the complexity of the relationships and that the causes of disasters may only be partially explained by the magnitude of the hazard.

The framework chosen may be by the following.

1. Type of tectonic hazard – there are three main types – earthquakes, volcanoes and (secondary) tsunami – best approach would probably be case-study led.
2. Scale of hazard and/or scale of disaster – case-study led using various measurements of intensity/scale mapped against measurements of scale of disaster and the impact of local and not so local geographical factors.
3. Developed/developing world contrasts using concepts of variations in socio-economic factors

Key analytical points

- A clear understanding of the distinction between hazards and disasters is an essential pre-requisite of a good report.
- The definitions need to include an overview of 'development', 'disaster' and the varied nature of 'impacts'.
- However, the main theme will be how human action/inaction turns a hazard into a disaster.
- Some may recognise that disasters often have a distinctive socio-economic profile even in highly developed societies because of land-use zoning and uneven resource allocation
- The scale of natural disasters will be affected by;
    1. Size and frequency of event –if the event is very large, e.g. Japanese tsunami
    2. Location of event – remoteness, difficulty of access.
    3. Timing of event – time of day/year.
    4. Socio-economic issues, including building quality, population densities in vulnerable areas and ability to escape/evacuate.
    5. Quality of governance which impacts on;
        - quality of warning/prediction techniques
        - quality of prior planning, e.g. building design

In summary

- The scale of those disasters is clearly consequential upon a series of factors both natural and human but ultimately mega-hazards are likely to be devastating wherever they occur – less extreme events are probably more disastrous in some areas than others because of level of development but remember that this can vary within an country.

Case studies used are likely to include:

1. California – Loma Prieta
2. Nyiragongo
3. Haiti v Chile
4. Iceland – Eyjafjallajökull
5. Hawaii
6. Asian, Japanese and Chilean tsunami events.

Question 2 – Evaluate the view that environmental factors are the most cause for variations in food insecurity.

- Research the varied causes of hunger in both the developed and the developing world.
- Research a range of locations to examine how environmental, economic and political factors contribute to food insecurity.

Indicative content

The focus of this title is the **relative** importance of environmental factors when compared with economic and political issues.

The framework chosen may be by the following.

1. Different causes of food insecurity across a range of countries at different stages of development including examples from both the developed and the developing world
2. Different types/levels of food insecurity and how these may be more or less local.
3. A 'case-study' approach by area/region with different examples illustrating a variation in the significance of economic, political and environmental

Key analytical points

- Ultimately, at a global level, the environmental constraints are limiting because of the complex relationship between food supply and the basic resource of available land and the quality of the soil.
- This problem is exacerbated by the overarching problem of climate change and a catastrophic decline in biodiversity which places major constraints on future food supply. The significance of this will grow!
- Evidence for this might be drawn from sub-Saharan Africa with well-known 'case-study' led material on desertification in the Sahel but also from the developed world exploring the impact of, for example, High Plains irrigation in the mid-west and/or the drought in south west USA.
- These ideas might be explored through the application of Malthusian/Boserupian theory to suggest how technology (driven by economics) might provide a solution to resource constraints by moving away from 'traditional' agricultural practices to more technologically innovative methods.
- Significant changes in tastes driven by increased economic prosperity have led to more pressure on resources; especially notable is the increase in meat consumption in (some) emerging economies.
- Political decisions may be exacerbating differences in food supply and thus food security, both within countries and between them.
- Global governance will be needed to address environmental catastrophe and there is no sign whatsoever of that emerging emphasising the role of politics both locally and globally.

In Summary

The question is set in the present '...are environmental' but it is legitimate to see this in terms of potential threats. *Senso stricto* the current geography of food insecurity is probably not dominated by environmental issues but by economic and political factors that control distribution rather than supply and it is distribution which dominates food insecurity.

Case studies are likely to include:

1. Global environmental issues
2. The Sahel
3. USA production methods e.g. feedlots and intensive agriculture e.g. growth of corn
4. Land ownership issues – Ethiopia/Saudi Arabia

Question 3 – 'It is impossible to protect most cultural landscapes in an increasingly globalised world'. Discuss.

- Research the reasons why globalisation poses threats to cultural landscapes.
- Research a range of contrasting locations to explore the extent to which cultures and cultural landscapes are threatened by a variety of factors.

Indicative content

The focus of this title is whether or not the freer movement of people, capital and across international borders has impacted on the will and/or ability to protect distinctive cultural landscapes

The framework chosen may be by the following.

1. Case studies of different societies/places with contrasting types of cultural landscapes with contrasting values attributed to those landscapes.
2. Case studies to illustrate how different cultures and their associated landscapes are protected by international agencies (UNESCO) national and local governments
3. Some might take a theoretical approach to discuss the possibility of affording protection – hyperglobalisers both positive and negative, sceptics and transformationalists.

Key analytical points

- Cultural landscapes are inevitably palimpsests with some showing through the present-day landscapes more clearly than others.
- Not all such landscapes are valued especially if they do not sit comfortably with dominant ideologies – for example Dharavi can be seen as a distinctive cultural landscape with high social capital.
- For example, there has been a long-term tension between the landscapes of indigenous peoples and colonising (largely European) peoples – these tensions pre-date the modern era of globalisation.
- However, the pressure on them has been exacerbated by globalisation e.g. ancestral landscapes of indigenous native Americans in Alberta or similar pressures in Amazonia as Latin American governments seek to increase oil output.
- There is no unambiguous relationship between the preservation of some cultural landscapes and globalisation – for example tourism might fund the preservation of Bath, Sienna, Paris through UNESCO world heritage status.
- Some cultural landscapes would be regarded and backward looking and regressive – Jamaican plantations might not be worthy of preservation.

In summary

- The keywords in the title are 'impossible' and 'most' – at one level this might be argued to be a truism.

- Expect examples of 'success' in the preservation of some cultural landscapes (rare outside the developed world) might be cited

Case studies used are likely to include:

1. World heritage sites.
2. The indigenous landscapes of North America.
3. Amish communities.
4. The English countryside

Question 4 – 'Rising life expectancy around the world suggests that health risks are decreasing everywhere'. To what extent do you agree?

- Research variations in life expectancy globally and between and within countries.
- Research a range of locations with different life expectancies to explore the contrasting trends in health risks.

Indicative content

The focus of this title is the that the largely although not universal increases in life expectancy reflect reductions in health risk.

The framework chosen may be by the following.

1. Contrasting histories of health risk from the developed and the developing world
2. Different causes of health risk including environmental factors (including air and water pollution) socio-economic status, poverty and geographic factors such as climate, and how these are changing.
3. Models of health risk (ETM, Kuznets).

Key analytical points

- Global life expectancy is 72 years at birth and has been rising - People are living much longer worldwide than they were two decades ago, as death rates from infectious diseases and cardiovascular disease have fallen.
- At the same time, countries have made great strides in reducing mortality from diseases such as measles and diarrhea, with 83% and 51% reductions, respectively, from 1990 to 2018
- However, there are very significant national variations with the range currently for 52 to 84.
- Even with big improvements in longevity in low-income countries, the types of health challenges faced by countries such as Bolivia, Nepal, and Niger are far different from those faced by countries such as Japan, Spain, and the United States.
- However, the health challenges of many middle-income countries such as China or Brazil are also closer to those in the US.
- Local variations are largely driven by variations in wealth/income within countries – there is a direct relationship between levels of deprivation and mortality rates as evident in Glasgow as it is in Mumbai or Lagos.
- These latter variations are closely related to levels of development and the availability and costs of inoculation/treatment (e.g. AIDs/HIV) but whatever the cause pollution may play a central role
- There are significant threats to positive trends in life expectancy , not least the increasing struggle to maintain effective antibiotics, dietary challenges and the rise of environmentally related premature deaths

In summary

- The correct answer is 'yes' but…..
- The depth and detail of the qualifications and an acknowledgement that the current improvement might not be sustainable will be the key differentiating factors

Case studies used are likely to include:

1. National contrasts Japan v Sierra Leone
2. Contrasts within countries – UK/USA
3. Contrasts within cities – 'life on the line' (London)