GradeMax



Mark scheme (Results)

January 2019

Pearson Edexcel International Advanced Level in Geography

Paper 4: Geographical Research

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 be 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 – 'Ineffective governance is the most important reason why tectonic hazards sometimes become disasters'. Discuss.

- Research the varied factors why some tectonic hazards turn into disasters.
- Research a range of disasters to examine the role of governance in their management.

Indicative content

The focus of this title is the complex relationship between hazards and the disasters that sometimes ensue – the research focus identifies the need to understand the cause of tectonic disastrous outcomes and that relationship. The question suggests that ineffective governance is the principle reason for disastrous outcomes.

The framework chosen may be by the following.

1. Types 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 – case-study led using various measurements of intensity/scale mapped against measurements of scale of disaster and the impact of governance.
3. Scale of disaster– case-study led using various measurements of scale of disaster (loss of life/insurance losses/economic damage) mapped against scale of event.
4. Developed/Developing world contrasts using concepts of variations in governance.

Key analytical points

- A clear understanding of the distinction between hazards and disasters is an essential prerequisite of a good report.
- The definition of 'ineffective governance' needs addressing as do the reasons for it – is it a function of low levels of development and poverty rather than a lack of will.
- However, the main theme will be how human action/inaction turns a hazard into a disaster.
- 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. Development/Wealth 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
        - quality of rescue services.

In summary

- The scale of those disasters is clearly consequential upon a series of factors both natural and human but the quality of governance is significant although obviously not the 'most important' in all cases.

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 overproduction and over nutrition are the most important food problems in developed and emerging countries.

- Research the varied causes of food supply inequalities in developed and emerging countries.
- Research a range of locations in developed and emerging countries to examine how overproduction and over nutrition affect people and the environment.

Indicative content

The focus of this title is the relative importance of both changing production methods and changing food consumption in countries in varying stages/states of economic development.

The framework chosen may be by the following.

1. Different issues relating to food insecurity across a range of countries at different stages of development including overproduction and over nutrition.
2. A 'case-study' approach by area/region with different examples illustrating a variation in the significance of overproduction and overconsumption.

Key analytical points

- There is clearly a significant issue with overproduction of food although the definition needs careful attention – overproduction in what sense?
- There is a good deal of food waste but it is not necessarily a consequence of overproduction so much as low and subsidised production costs as well as super-sized portions especially from fast-food outlets.
- Food waste on the 'farm' is also an issue – examples of this might include feedlots.
- Significant changes in tastes have led to greater waste because of growing fussiness over what is and what is not acceptable – this is especially true with the increase in meat consumption in (some) emerging economies.
- Over nutrition and obesity are significant health issues in many countries, not least in the USA and some European countries – it is also a growing issue amongst the emerging middle-classes in emerging countries.
- However, with increasing inequalities in many developed societies and a growing gap between urban elite and rural poor in many emerging societies there are significant issues of undernutrition in poor communities.
- There is also the emergence of an urban poor/underclass in many large cities across the developed and emerging world.
- Malnutrition is also a significant issue with significant dietary deficiency in many countries across a range of incomes.

In summary

- Important and troublesome but probably not the 'most important' food problem so the title can be rejected.

Case studies are likely to include:

1. USA production methods e.g. feedlots and intensive agriculture e.g. growth of corn
2. Food waste in processing – e.g. fast food chains
3. Food banks and soup kitchens.

Question 3 – 'In our globalised world there is greater cultural diversity within countries than between them'. Discuss.

- Research the reasons why the degree of cultural diversity varies from place to place.
- Research a range of locations to explore cultural diversity both within and between countries.

Indicative content

The focus of this title is whether or not the migration of people as well as ideas has led to cultural homogeneity across international borders whilst leaving some areas/regions within countries largely unaffected.

The framework chosen may be by the following.

1. Case studies of different societies/places with contrasting levels of cultural diversity.
2. By level of development and/or urban/rural contrasts within countries.
3. Some might take a theoretical approach – hyperglobalisers both positive and negative, sceptics, transformationalists.

Key analytical points

- Cultural diversity needs to be deconstructed as does the apparatus for assessing how one evaluates 'more' or 'less'.
- Both internal and international migration as well as receptiveness to new ideas/media are likely to cause higher levels of cultural diversity with the diaspora of different cultures spreading but with marked regional differences within countries.
- Political decisions are central to the development of more culturally diverse societies.
- Internal and international migration are most significant in countries with significant internal diversity, e.g. China but much less so in others with less diversity, e.g. Japan.
- This is especially true of global hub cities with high levels of flux in the population, e.g. London, Singapore where there is, arguably, the development of a 'global' culture at least in skeletal form
- Some other causes of cultural diversity are closely connected to migration – specifically levels of interconnectedness (globalisation indices frequently include measures of migration).
- Ethnically mixed societies might create new cultural forms/hybrids ('Singlish') but can also impact negatively by reducing diversity.
- Mass tourism is a 'part' of migratory movements and tends to lead to the development of facilities that can replicate the domestic cultures of that mass market which can limit diversity.
- Globalisation of production chains and media is arguably a significant set of processes but these are often closely associated with movements of labour.

In summary

- This could be argued either way – some societies have relatively less cultural diversity within them – Iceland/Japan – and interstate contrasts may well be greater.
- On the other hand in many large countries with a long history of cultural assimilation and diversity (USA) there may well me more diversity within than between such states and isolated places.

Case studies used are likely to include:

1. Japan/UK/France
2. Iceland
3. London/Singapore
4. Tuvalu/Thailand
5. Amish communities.

Question 4 – Evaluate the view that pollution poses the most serious threat to human health.

- Research the varied nature of pollution and its contribution to overall health risk.
- Research a range of locations with different types of pollution to explore how they impact on both short- and long-term health risks.

Indicative content

The focus of this title is the degree to which pollution in various forms may dominate health risk in some places.

The framework chosen may be by the following.

1. Different causes of health risk including environmental factors (including air and water pollution) socio-economic status, poverty and geographic factors such as climate.
2. Models of health risk (ETM, Kuznets).
3. By health risk, e.g. malaria, TB, Ebola, obesity, asthma, cancer epidemic.
4. By level of development especially after natural hazards (GNI/GDP/HDI).

Key analytical points

- 'Pollution' needs very careful deconstruction especially to focus on both indirect human action (e.g. plastic waste disposal impact on fish) affecting the food chain and direct contamination of water and air sources ingested by humans.
- Health risk can be expressed in two dimensions – geographic extent and threat to individuals which needs identifying to address how to assess 'most serious'
- The best, indirect, measures are probably life expectancy and DALYs.
- The impact of major health risks is largely determined by poverty and limited access to basics such as clean water and sanitation which ultimately are caused by inadequate sanitation.
- Poverty is a term that needs deconstructing carefully (absolute and relative) – some students will include health risks associated with quality of built environment, sewage disposal and lack of access to freshwater.
- These latter causes are closely related to levels of development and the availability and costs of inoculation/treatment (e.g. AIDS/HIV) but whatever the cause pollution is central.
- The role of inequalities is very significant – the higher the level of inequality the lower the life expectancy – an issue that relates to governance (postcode lottery).
- Some diseases (some cancers) may be a product of development suggesting an inverse relationship between development and health risk and links to air pollution are possible.

In summary

- To some extent this depends on the adequacy/breadth of the definition of pollution – if it incorporates water borne diseases caused by insanitary conditions (as it really should) then there is a strong case to be made.
- If a narrower definition is offered, then it is possible to conclude otherwise.

Case studies used are likely to include:

1. Diarrhoea caused by contaminated water and subsequent dehydration
2. Malaria and other vector borne diseases originating from contaminated water sources
3. Growth of cancers in the developed world especially related to environmental factors.