Mark Scheme (Results)

Summer 2022

Pearson Edexcel International Advanced Level
In Geography (WGE04/01)
Paper 4: Researching Geography

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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 – 'No tectonic disaster is entirely the result of physical processes'. Discuss.

- Research the varied reasons why some natural hazards can become disasters.

- Research a range of tectonic hazards to examine the reasons why there are differences in their consequences for people.

Indicative content

The focus of this title is the relationship between hazards and disasters and the role of people in creating the latter form the former

The framework chosen may be by the following.
1. Type of tectonic hazard – one section on earthquakes of varying magnitudes, one on volcanic eruptions, one on tsunamis
2. Scale of hazard and disaster – case-study led using various measurements of intensity/scale mapped against measurements of scale of disaster and the impact on people and property.
3. The use of a risk equation to address hazards, risk, vulnerability, capacity to cope and disasters.

Key analytical points

- The UNO definition of a disaster is **a serious disruption to the functioning of a community**, which causes human, material, economic and environmental losses beyond a community's ability to cope.

- The severity of a disaster depends on both the physical nature of the extreme event and the social nature of the human populations affected by the event.

- A core point here is that different people, even within the same region, have different vulnerability to natural hazards.

- Wealth is one of the most important human factors in vulnerability. The poor are less able to afford housing and other infrastructure that can withstand extreme events. They are less able to purchase resources needed for disaster response and are less likely to have insurance policies that can contribute.

- For example, some coastal areas contain expensive beachside real estate populated mainly by the rich, leaving the rich more vulnerable to tsunamis, storm surges, and other coastal hazards.

- Education is another important factor in hazard impacts. With education, we can learn how to avoid or reduce many impacts. When populations are literate, then written messages can be used to spread word about hazards in general or about specific disasters. Even without literacy, it is possible to educate a population about hazards in order to help it reduce its vulnerability. important for natural disasters.

- The quality of both formal governments and informal governance in a population is another important factor. Governments can advance policies that reduce vulnerability. They can establish agencies tasked with reducing vulnerability.
- The capabilities of the available technology can also play a large role in disasters. Technology can improve our ability to forecast extreme events, withstand the impacts of the events, and recover afterward. Technology is closely tied to wealth, education, and governance. Wealthier, more educated societies are more likely to have more advanced technology
- However, some disasters are so unexpected and so large as to overwhelm even the most sophisticated systems of mitigation and adaptation

In summary

- The title is essentially a truism given that earthquakes on uninhabited islands are not disasters given that a disaster is defined by its impact on people

Case studies used are likely to include:

1. Iceland – Eyjafjallajökull
2. Mount St. Helens
3. Great Sichuan earthquake 2008
4. Loma Prieta/San Francisco
5. Asian, Japanese and Chilean tsunami events.

Question 2 – "Food insecurity is decreasing in the developing world but is increasing in the developed world'. Discuss.

- Research the varied causes of trends in food insecurity in both the developed and the developing world.

- Research a range of locations to examine why food security varies from place to place

Indicative content

The focus of this title is the trends in food insecurity rather than the absolute numbers

The framework chosen may be by the following.
- Different causes of food insecurity across a range of countries at different stages of development including population growth.
- A 'case-study' approach by area/region with different examples illustrating constraining trends in food insecurity.

Key analytical points

- A key issue to be resolved here is what constitutes 'food insecurity and how it might be measured in order to facilitate a reasonable comparison – some may extend this to investigate the meaningfulness of the developed/developing aspects of the question and more especially the local variations e.g rural/urban contrast in sub-Saharan Africa and south Asia.

- Food (in)security is measured in a number of ways; one of the most useful is the FIES (Food Insecurity Experience Scale) survey which consists of eight questions designed to assess the adequacy of an individual's access to food.

- In 2017 27% of the world population were food insecure, roughly half of the people in low income developing countries with 10% in high-income countries.

- In recent years, several major drivers have put the world off track to ending world hunger and malnutrition in all its forms by 2030. The challenges have grown with the COVID-19 pandemic and related containment measures.

- This is reflected in disadvantaged communities in both the US and Europe especially in minority ethnic communities

- 2017, Sub-Saharan Africa had the highest prevalence of food insecurity (55 percent) and severe food insecurity (28 percent), followed by Latin America and the Caribbean (32 percent food insecure and 12 percent severely food insecure), and South Asia (30 percent and 13 percent). Food insecurity and severe food

insecurity were lowest in North America and Eastern Europe and Central Asia.

- However global trends, at least until 2020 present a more complex picture; for example, 10% of adults lived in households classified as marginally food insecure, and 10% reported living in household with moderate or severe food insecurity picture.

- These figures rose sharply in 2020 precipitated by the Covid-19 crisis which has had significant impacts on both supply and food costs.

- Agencies and NGO's in the UK (the Trussell Trust) and other developed countries suggest a rising trend in food insecurity reflecting growing inequalities whilst the picture in the developing world is, at least until 2020, rather more encouraging although very uneven.

- Population increase (or decrease) obviously impact on the data – candidates may explore the differences between absolute numbers and relative numbers

In summary

- The trends are complex and not easy to shoehorn into a simplistic developed/developing world division – variations within countries have increased markedly. As global and national inequalities have increased.

Case studies are likely to include:

- Food insecurity in the Sahel and south Asia
- Food insecurity in the UK/USA
- Land purchases in Africa undermining national food supply
- Rising population/income in India and China
- Urban/rural contrasts in south Asia

Question 3 –   Evaluate the view that globalisation is more likely to increase cultural diversity than to decrease it.

- Research the reasons why cultural globalisation varies in its impact and significance.

- Research a range of locations to explore how globalisation affects cultural diversity.

Indicative content

The focus of this title is whether or not the increasing interconnectedness implicit in globalisation causes greater cultural diversity or reductions in it.

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 to allow some assessment of how it is be measured, as does the apparatus for assessing how one measures levels of 'globalisation'.

- The impact on cultures is obvious but not possible to quantify; there are many systems of measuring cultural diversity but none of them have become universally accepted – recognising where one 'culture' ends another begins is clearly highly subjective.

- Issues may arise over the nature of those processes which will differ at both national and local level – the growth of connections allowing the spread of dominant cultures through Americanisation and/or the movement of people that leads to greater ethnic diversity which may bring with it greater diversity.

- Assimilation can lead to a loss of cultural diversity as local distinctive communities lose their language e.g. Koreans in Japan, Italians in the US – in these cases greater connectedness may lead to decline in diversity.

- There may be a significant role for government in driving the process of either cultural assimilation or maintaining diversity

- There are significant rural/urban contrasts in many countries especially those with poor internal 'connectedness'. Nonetheless it is simplistic to assume that remote communities are largely homogenous e.g. cultural diversity in Afghan villages.

- By contrast in some global hub cities with high levels of flux in the population, e.g. London, Singapore there is, arguably, the development of a 'global' culture

at least in skeletal form blurring the boundaries between previously culturally distinctive communities.

- Thus, ethnically mixed societies might create new cultural forms/hybrids ('Singlish') but can also impact negatively by reducing diversity.
- Indigenous cultures are always changed by globalisation and the increased connectivity it implies but there will be a wide range of views as to whether greater disparity within one culture the development of a distinctly 'new' variant of that culture.

In summary

- There is always 'some' impact of globalisation on societies but the question asked here is not easily answered by a yes/no/maybe analysis– better to suggest that the impact is complex e.g. Japan post-Perry.

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 global programmes are the most successful way to manage health risks.

- Research local to global strategies used in managing health risk.

- Research a range of locations to investigate the challenges of managing health risks.

Indicative content

The focus of this title is the efficacy of global (as opposed to national or local) programmes to manage health risks

The framework chosen may be one of the following.
- Comparison of health risks states in various stages of connectedness to the global economy and how this has impacted on their management of these risks
- Different causes of health risk at a range of scales including environmental factors (including air and water pollution) socio-economic status, poverty and geographic factors such as climate to establish the most productive way of talking these risks

Key analytical points

- Health risk can be expressed in two dimensions – geographic extent and threat to individuals which needs identifying to address how to assess what is the best way of evaluating, 'most successful'.

- The best, indirect, measures of 'success' are probably life expectancy and DALY's which will broadly support the positive impact of global programmes but some will comment that comparison is difficult

- But 'global programmes' also needs to be deconstructed given that it may be related to vaccine developments or more systematic programmes of infection control

- They operate through agencies such as the WHO but also many NGO programmes.

- Planning and managing a global health initiative involves many steps and many actors.

- These include establishing a robust supply chain, addressing corruption, thinking about the intersectionality of poverty and gender and considering how the programme may advance or hinder the larger goal of health equality

- Examples include the Global Fund to Fight AIDS, Tuberculosis and Malaria; GAVI, The Vaccine Alliance; Global Alliance for the Prevention of Obesity and Related Chronic Diseases, and the Peers for Progress

network. These funding programmes tend to support research to determine the magnitude of the problem, develop and implement interventions and, in the case of low-and middle income countries (LMICs), build research and workforce capacity.

- Many of the reports are likely to be focussed on the spread of Covid-19 and the many travel restrictions imposed in the attempts to manage its impact – that involves national decisions but in a global context especially over travel; however it required local and national scale rules over 'lockdown' which varied considerably from place to place and from time to time
- Local and national programmes are likely to dominate when the health risk is essentially environmental and thus needs national/local management so anti-pollution programmes (clean air acts and water quality rules for example)
- However, some global health risks as with global warming and the spread of infectious disease demands a global approach if it is to be effective
- There are very few precedents for the successful management of environmental health risks although the programme to protect the ozone layer is a useful exception here.
- There are UN programmes to address poverty (a major cause of health risk) but these depend on national financial contributions which are highly variable and politically contentious.
- The trend has been for a significant number of national governments to cut back on their foreign development aid budgets and the current global vaccination programme is a sad reminder of the dominance of national interests over global need.

In summary

There are some global threats which demand global action. Pandemics are an obvious example as is global warming and global inequalities. Global action has a very patchy record. National and local programmes to reduce the health risks associated with inequalities and environmental threats have a better record in many countries albeit with uneven outcomes within countries.

Case studies used are likely to include:
- WHO and vaccination programmes – malaria, Covid 19 and polio
- USA and UK – internal geography of the impact of Covid 19
- Ozone depletion policies – global dans of chloro-fluorocarbons

- Cuba to show role of governance at a national level
- Clean Air Acts – controls of water pollution through Public Health Acts