



Mark Scheme (Results)

Summer 2019

Pearson Edexcel IAL
In Geography (WGE04) Paper 4

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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 evidence that earthquakes always have more serious impacts than volcanic eruptions.

- Research the reasons why earthquakes and volcanic eruptions have different impacts.
- Research a range of disasters to examine the reasons why there are different economic and social impacts on communities.

Indicative content

The focus of this title is the assertion that earthquakes have a more serious impact on communities than volcanic eruptions.

The framework chosen may be by the following.

1. Type of tectonic hazard – one section on earthquakes of varying magnitudes, one on volcanic eruptions.
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. Developed/Developing world contrasts using concepts of variations in governance to explain variations in impacts.

Key analytical points

- ‘Impact’ also needs careful deconstruction – many will separate impacts on people through death and injury and impacts on property as measured by both insured losses and economic losses.
- Volcanic eruptions are more predictable in terms of their location but less so temporally although warnings are often obvious – nonetheless significant losses can occur both as a direct result of eruption and indirect – death tolls can be large.
- Evacuation is often possible to save lives, but property damage is largely unavoidable although zoning might help using past eruption maps.
- Long term impacts of eruptions can be very significant including climate change and species loss.
- Earthquakes are less effectively mapped and even when good spatial information is largely their magnitude is unpredictable which makes preparation problematic.
- Evacuation is generally not possible given the unpredictability of timing –property damage may be limited by zoning but also by enforcement of building codes.
- Answers might differentiate between short term and long term impacts which will differ for every event.

In summary

- There is more evidence to support the contention in the question but it should allow for exceptions.

Case studies used are likely to include:

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

Question 2 – ‘Population growth is the most serious challenge to food security facing developing countries’. Discuss.

- Research the varied causes of food insecurity in the developing world.
- Research a range of locations in the developing world to examine how population growth affects food security.

Indicative content

The focus of this title is the relative importance of population growth as a factor in determining food security.

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 population growth.
2. An approach that covers the question at a range of scales from global to local.
3. A ‘case-study’ approach by area/region with different examples illustrating a variation in the relationship between population growth and food (in)security.

Key analytical points

- A key issue to be resolved here is what constitutes ‘population growth’ and more especially what scale to employ – global/national/local?
- ‘Most serious’ challenge also needs some deconstruction to establish what constitutes ‘most serious’ and to introduce other possible alternatives.
- At a global level population growth has slowed down significantly since the 1980s although there are marked variations at the global region level down to the local level.
- Local population changes may lead to problems of exceeding carrying capacity but these are often precipitated by migration and large-scale population displacement rather than variations in human fertility.
- In some of the regions with high fertility land, availability has been impacted both by climate change and the commercialisation of agriculture with negative consequence on subsistence communities – some of this has been through foreign companies.
- Food cost is a significant factor in locations with marginal food supply.
- Overproduction of food in some regions and the change in diets associated with development are significant issues in food supply.

In summary

- At a local scale this might be tenable but in general the relationship is not easy to establish given that food insecurity is often found in areas of relatively light population densities.
- Some might wish to distinguish between absolute numbers suffering short-term acute hunger and relative numbers – the former has increased but the latter has declined.

Case studies are likely to include:

1. Desertification in the Sahel
2. Land purchases in Africa
3. Famine in Rwanda
4. Rising population/income in India and China.

Question 3 – Evaluate the extent to which the most connected places are always the most culturally diverse.

- Research the reasons why cultural diversity varies from place to place, at a range of scales.
- Research a range of locations to explore how connectedness impacts on cultural diversity.

Indicative content

The focus of this title is whether or not connectedness inevitably causes greater cultural diversity.

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 measured, as does the apparatus for assessing how one evaluates ‘connected’.
- Issues may arise over the nature of that connection – 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.

In summary

- Connected places are not necessarily culturally diverse so 'always' probably needs to be rejected although there is always 'some' impact – 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 - 'Health risk always declines as countries develop'. Discuss.

- Research the changing causes of health risks as countries develop economically and socially.
- Research a range of locations at different levels of development to investigate reasons why health risks vary.

Indicative content

The focus of this title is the relationship between health risk and (economic) development.

The framework chosen may be by the following.

1. Comparison of states in various stages of economic development and/or a timeline for one state as it has developed.
2. Different causes of health risk including environmental factors (including air and water pollution) socio-economic status, poverty and geographic factors such as climate.

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 'declines'.
- The best, indirect, measures are probably life expectancy and DALY's which will broadly support the positive link with economic development.
- But 'development' needs to be deconstructed too – in other words it might extend well beyond purely economic development to embrace social and political factors.
- 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, both of which are clearly related to development.
- However, there are clearly some health risks that are poorly related to development or even directly related; these include obesity, heart disease and possibly some environmentally induced increases in cancers.
- The role of inequalities is very significant thus within 'developed' societies there are communities with 'developing world' life expectancies and associated health data e.g. infant mortality rates.
- The higher the level of inequality the lower the life expectancy – an issue that relates to governance (postcode lottery) and lifestyle decisions as well as poverty.

In summary

- This is broadly true but is simplistic and it is simply not true that the relationship works in a linear way – thus within groups of countries e.g. developed countries the relationship with GDP per capita is weak.

Case studies used are likely to include:

1. USA
2. India and/or China rural/urban contrasts
3. Urban inequalities through London 'life on the line' material
4. Cuba to show role of governance.

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