VICTORIAN CURRICULUM AND ASSESSMENT AUTHORITY

2008 Geography GA 3: Written examination

GENERAL COMMENTS

The 2008 Geography examination paper was well received by students and teachers and the responses were quite impressive. Students were able to write geographically and display their understanding of key geographic concepts and mandated topics.

Students were required to apply their geographical skills when analysing the data provided and there was some excellent detailed and accurate geography writing. Although teachers had referred to the *VCE Geography Study Design* in structuring their topic coverage, there is still a need for students to be aware of the significance and importance of the key knowledge and skills outlined for Units 3 and 4.

Areas of Strength and Weaknesses

Strengths

- Most students finished the paper. A significant proportion of students requested an extra examination script booklet and many students wrote several pages of relevant information.
- The quality of many answers was particularly high; this was an improvement on the 2007 responses and students appeared to have acted on advice given in the 2007 Assessment Report.
- Students appeared to have a better understanding of the full course of study and the requirements of the course.
- The knowledge of the Murray-Darling Basin was, generally, impressive.
- Students showed knowledge of and applied the information to their case studies better, suggesting that the case studies had been learnt more thoroughly. Students appeared to be better informed, as the written responses were detailed and relevant and very recent issues were discussed.
- Better responses made more effective use of relevant data to quantify their responses.
- Local fieldwork was well understood and discussed appropriately.
- Students who understood and followed instructional terminology were able to answer correctly and earn high marks.

Weaknesses

- Many students appeared to have difficulty interpreting what the questions were asking of them. These students appeared to have difficulty interpreting unseen data.
- Many students had difficulty deconstructing a question and breaking it down into its constituent parts.
- Despite improvement in the knowledge of the Murray-Darling Basin, some students wrote too generally and their answers confused fact and fiction.
- Many students were unaware of the differences between human, and natural and physical features.
- While it is pleasing to see so many students writing in detail, many students wrote ‘all they knew’ responses, without considering the question set. Students must read the questions carefully and ensure that they answer the question asked of them.
- Although geographic concepts were understood and applied by many students who had greater confidence in using these independently and integrating them in their responses, many other students still had a poor understanding of important geographical concepts. When describing distribution, many students forgot that a description of a distribution pattern does not necessitate an explanation for the pattern.
- Instructional terms were still not fully understood, especially the use of the terms ‘evaluate’ and ‘justify’. Students must focus on the instructional term in the question so that they can direct their answer to exactly what the question requires.
- Although many students drew well-labelled maps of their global phenomenon, many students produced incorrect, poorly mapped efforts. Locations of key features on the world map were often incorrectly plotted; however, there was some improvement from 2007.
- Directional terms were not always applied correctly, for example, ‘north’ not ‘up’, and ‘west’ not ‘left’.
- Although the poor quality of some students’ handwriting made reading papers quite difficult, the quality of the handwriting was clearer than in previous years.

SPECIFIC INFORMATION

Note: Student responses reproduced herein have not been corrected for grammar, spelling or factual information.

For each question, an outline answer (or answers) is provided. In some cases the answer given is not the only answer that could have been awarded marks.

Question 1
Question 1a.

Marks	0	1	Average
%	2	98	**1**

The Gulf of Carpentaria

Overall, this question was generally well done as students used the data well. Most students were able to recognise the correct response.

Question 1bi-ii.

Marks	0	1	2	3	4	Average
%	19	3	14	6	58	**2.8**

Most students accurately interpreted Question 1b. In supporting the quote, the more successful students clearly made the link that there needed to be either high runoff spatially associated with a high population, or low runoff spatially associated with a low population. Rejecting evidence required a low runoff/high population or high runoff/low population. Students then needed to support their claims with examples.

Although this question tested students' level of understanding of the spatial concept of spatial association, this term was not required to be used.

The following is an example of a more successful answer.

> Supporting*: Drainage Divisions with low percentages of Australia's total water runoff are also areas of low population distribution, for example, The Western Plateau Division produces 0.4% of Australia's total water runoff and this region has a population density of less than 1 person per sq km.*
>
> Rejecting: *The Timor Sea Division (21.5%) and the Gulf of Carpentaria Division (24.7%) are the highest contributors to runoff in Australia; however, they have a very low concentrated population distribution of less than 1 to 10 people per sq km.*

Students who found this question challenging did not make the accurate links and used less obvious examples from the data booklet. Some students brought in outside information that was not relevant to the question.

> *The reason that South Australia's Gulf Division is low is because too many people are using it for household and industrial purposes.*

Less successful students did not understand the directions of the question, confusing the terms 'reject' and 'support'. Some did not understand the term 'reflect' and their responses referred to population densities **causing** runoff and vice-versa.

Following is an example of a less successful response in this case.

> *The population in the north of Australia is less than 1 person/square km and therefore the amount of runoff in coastal environments is less.*

Poor responses also included examples where students discussed rainfall patterns and climate.

> *There is a strong spatial association between a high % of runoff and population of less than 1 person/square km. This is due to the warmer climate in the north of Australia.*
>
> *The Western Plateau Division has low runoff because it is in the middle of the desert and no-one would want to live here as there may also be desertification and people would not be able to grow their crops. That is why more people live in the larger cities.*

Question 2
Question 2a.

Marks	0	1	Average
%	65	35	**0.4**

It appeared that many students found this question difficult. The term 'unique' caused problems, with many students, for example, discussing the variability of rainfall in the Basin, which is not a 'unique' feature. Instead of identifying a natural or physical geographic characteristic, they identified a feature that was **human**, such as making reference to agriculture or the growing of a specific crop. Other weaknesses included natural or physical characteristics that could have been true for many regions in Australia and were not unique to the Murray-Darling Basin.

Acceptable answers referring to the natural or physical characteristics of the Murray-Darling Basin included those that referred to the complexity and size of the river network, species such as the Murray Cod, the saucer-shaped Basin, the location of Australia's three longest rivers within the Basin (Murray, Darling, Murrumbidgee), precipitation varying from the Alps to the dry interior, and the extensive flat undulating plains that dominate most of the Basin, etc.

Following is an example of a more successful response.

A significant natural geographic characteristic of the Murray-Darling Basin is its native fish populations. There are many species of fish which are distributed in many parts of the Murray-Darling Basin and which are endemic to the Murray-Darling Basin. One such species is the Murray Cod.

Question 2b.

Marks	0	1	2	3	Average
%	7	25	39	29	**1.9**

Generally students were successful in gaining at least two of the three marks for this question.

The most successful students described a distribution pattern which provided the pattern: dispersed, scattered, uneven, clustered.

The linear pattern of the four larger fruit and vegetable growing areas situated on the Murray River.

The linear pattern of the four smaller areas lying roughly north-south on the eastern part of the Basin from near Canberra to near Dubbo.

These students also gave some quantification.

6 out of the 11 sub-regions of fruit and vegetable growing are located along the Murray or Murrumbidgee Rivers.

These students also mentioned an exception.

An exception to the general pattern are the three small (20 km x 20 km) sub-regions to the south-east of Dubbo, in central-east NSW and the one, slightly larger (30 km x 20 km) sub-region located east of Moree on the Queensland/NSW border.

Less successful students failed to identify any distribution pattern and did not quantify their statements. Teachers must remind students not to provide lists of all locations in response to distribution questions.

Some students correctly identified that there was a strong spatial association with both rivers and rainfall patterns and the distribution of fruit and vegetable regions. However, such responses did not answer the question asked and so could not gain any marks.

Some students tried to explain the reasons for the distribution and again, this was not what the question asked. Teachers must ensure that students understand the meanings of the instructional terms, such as 'describe'.

Less successful answers also included inaccurate statements, such as 'the coast of the Murray-Darling Basin' or 'the east coast of the Murray Darling River', 'an 'even' distribution', 'fruit growing extending all the way to Brisbane', etc.

Question 2c.

Marks	0	1	2	3	4	Average
%	5	9	21	41	24	**2.7**

This question was generally well answered. Most students gave their stance on the plan's likely sustainability, and used figures for rainfall and crop water needs to support their view.

The majority of students saw the plan as unsustainable, citing the disparity between the Broken Hill-Menindee lakes annual average rainfall of less than 300 mm p.a., and the water requirements of rice (over 1100 mm p.a.) and fruits such as citrus at just over 800 mm p.a. More successful answers noted the different water requirements of the particular fruit types graphed in Figure 2c., and gave insight into the special nature of the proposed region, such as:

- rice is highly water intensive and so water could not be used efficiently without problems of water availability being overcome in the future
- only possible with a lot of water stored in Lake Menindee and with above-average rainfall
- would need water transferred from the Darling River, and given the existing stress the river is in and other uses in Western NSW, it would be unsustainable in the present circumstances
- irrigation would have to be used; it might be possible, but not profitable.

A small number of students said the plan was sustainable, citing Mildura as a fruit growing region with a similar annual average rainfall and noting that irrigation would be necessary. Without specific reference to the rainfall amount and respective crop water needs, it was not possible to gain full marks.

Question 2d.

Marks	0	1	2	3	4	Average
%	10	14	27	29	20	**1.9**

There was a great range in the quality of the responses to this question.

Students were asked to evaluate how effectively one strategy selected from the list manages or could manage water resources in the Murray-Darling Basin. Better responses evaluated this by giving a judgement either agreeing, disagreeing or partially agreeing with the statement. Less successful students gave no evaluation at all.

More successful responses described the strategy chosen to manage water in the Murray-Darling Basin. They stated how this strategy worked, rather than simply stating its effectiveness and desirability. For example, better responses, when considering improving irrigation techniques, made specific reference to drippers, sprinklers, open trough irrigation, centre pivot sprays and the reduction in wastage, salinity or greater efficiency.

Less successful answers concentrated on the existing characteristics or situation that needed to be fixed, or merely gave a more superficial argument stating that if their particular chosen strategy was carried out, certain benefits would result.

The question asked for one location within the Murray-Darling Basin. In general, answers were specific, for example, the Macquarie Marshes, Shepparton irrigation area, the Mallee, Broken Hill, the Goulburn Valley, Griffith, Barmah-Millewa forest, and the Coorong, etc.

Less successful responses referred to broader examples, such as along the Murray, the riverine system, fruit and wheat areas, and the whole Murray-Darling Basin. They tended to describe a strategy that could have been relevant to any location.

More successful students made reference to the effectiveness or otherwise of their chosen strategy in managing water at their chosen location and ensured that their response related to water management. These students were specific and precise, whereas weaker students tended to make sweeping, generalised statements.

More successful students also quantified their response in some way, particularly when dealing with the strategy as it applied to their chosen location and the management of water.

The following is an example of a successful response.

> *This strategy could very effectively manage the water within the Barmah – Millewa forest. The forest is a RAMSAE listed site which protects migratory birds relying on water resources, and is the world's largest river red gum forests (66,000 ha). The trees rely on seasonal flooding of at least 300 GL annually for set durations in order to survive and provide habitat for migratory birds as well as local fauna (such as fish species like the Murray Cod) and flora. Environmental flows would fulfil all these needs. However, this strategy would only succeed provided there is sufficient water in the Yarrawonga Weir(for flooding) and would result in likely conflict from neighbouring farmers/irrigators who fear that their water allocations will be cut as a result of environmental flows to the BMF.*

Question 2e.

Marks	0	1	2	3	4	5	Average
%	10	10	18	24	25	13	**2.8**

To answer this question successfully students were required to evaluate the statement, give the location, the nature of the conflict, the parties involved, and elaborate in detail.

Students generally understood the question well and used a range of examples, including the Murray mouth, the Macquarie Marshes, cotton growing at Cubbie Station, the Narran Lakes, and the north-south pipeline from the Goulburn River, etc.

Precision in the clear identification of the issues involved and a clear location of the interest groups marked the more successful answers. The more successful responses made a judgement about the statement – they specifically gave their opinion as to whether the use and management of the water within the Murray-Darling Basin is complex and whether conflicts are inevitable. They justified this judgement by reference to a specific conflict at a specific place, emphasising the nature of the conflict and the parties involved, for example, 'cattle and ranch farmers in the Yea and Mansfield region'. These students also qualified their stance by referring to one or more of, the complexity of water supply and uses in the Murray-Darling Basin, the fact that they may be cross-state, that there may be too many competing users, or the lack of sufficient water for everyone.

Less successful answers referred, for example, merely to conflicting views between environmentalists and farmers, recreational water use and other uses, or interstate generally. Some students rewrote the same material given for the previous question.

The following is an example of a successful answer.

> *Conflicts are indeed inevitable as water is a scarce resource within the Murray-Darling Basin, yet supports over 2 million people for different needs directly. This is evident with the conflict surrounding the Goulburn Valleys pipelines, including the North-South pipeline construction from Goulburn Valley (GV) to Melbourne (Sugarloaf Reservoir) and to Bendigo and Ballarat, in each case for urban use. The Victorian and federal governments plan to construct the pipeline which will deliver 75 GL/year for urban use, based on 225GL/year savings derived from improved water management technologies (e.g. plastic or clay lining of water channels or enclosing water in pipes). The other 150GL/year saved will supposedly go, equally, to the Goulburn valley farmers and environmental flows. However, farmers in the GV claim that the Goulburn river can't support the extraction with the river rated to be in the worst health out of 23 rivers in the Murray-Darling Basin and over 16 orchards in the GV closing in the last 12 months due to the lack of water. Recently, the Greens political party have attempted to resolve the conflict by stopping the pipeline. They lodged a legal request to alter the Water Trading act to make water extraction from the Murray-Darling Basin to areas outside the Murray-Darling Basin against the law. Thus the statement in the question is strongly supported.*

Question 3

Question 3a.

Marks	0	1	2	Average
%	20	15	65	**1.5**

Although many students answered this question successfully, many either failed to classify their resource and simply gave a description, or failed to justify their classification. There was often confusion as to the type of classification needed. Some students chose to use terms such as a 'boating' or 'shopping' resource, rather than the more formal 'recreational' or 'economic' resource. Some students classified their resource as local, which was not acceptable as this was already indicated in the question. Acceptable classifications included human, renewable, commercial, natural, sustainable and recreational.

Following are examples of acceptable responses.

> *Organ pipes National Park is a sustainable, natural resource. The rock formations are all naturally occurring and it is sustainable as walking tracks and strict measures are enforced to ensure its sustainability.*

> *Chapel Street shopping strip is a human resource, totally built by humans and used for commercial and entertainment by locals and other visitors.*

Question 3b.

Marks	0	1	2	3	Average
%	5	13	34	48	**2.3**

It was disappointing that many students could not use the three spatial concepts appropriately in relation to their chosen resource. Location was generally well described, with many students indicating the location in relation to Melbourne and naming main roads and local government areas. Many students confused the terms 'distance' and 'scale'. It was not uncommon for some students to indicate the width or length of their resource and describe this as 'distance'. More successful answers indicated the distance in kilometres from Melbourne or nearby features such as main roads or similar resources in the local region.

Many students failed to adequately identify scale, simply stating that it is a local resource. More successful answers indicated that it was of a smaller scale than other similar resources in the region or stated the approximate area covered. Less successful responses referred to a scale on a map or drew a linear scale.

The following are examples of successful responses.

Location

Cape Schanck on the Mornington Peninsula, 7 km from Gunnamatta Beach on the south east coast…

Mt Buller is located NE of Melbourne. It is found in the alpine region of Victoria and is located in close proximity to the six other alpine resorts in Victoria.

Distance

Mt Buller is a distance of approximately 3 hours and 50 minutes from Melbourne and 30 minutes from Mansfield.

Tarra Bulga NP is a distance of approximately 240km east of Melbourne, 25 km north of Yarram and 22 km south of the La Trobe Valley.

Scale

Recreational activities take place at a range of scales, from large scale activities such as the Grand Prix Carnival to small scale activities such as individuals making use of the various fitness stations located around the park.

Tarra Bulga NP covers 1552 hectares of land within the Gippsland region of Victoria.

Question 3c.

Marks	0	1	Average
%	10	90	**0.9**

Most students were able to answer this question successfully, either naming or describing a policy. Following is an example of this.

A management policy in response to the negative impact of pollution of Albert Park Lake is the installation of a water filtration system.

Some students wrote far more than was needed for this one mark question.

Question 3d.

Marks	0	1	2	Average
%	14	38	48	**1.4**

The best responses showed an understanding of the term 'sustainability'. They added costs and other activities for ongoing repairs or conservation to features in the resource. They also referred to the benefits of the policy as well as saying how effective or important this would be in the future management of the resource.

Successful responses were able to give a clear opinion as to the likely future sustainability of the policy identified in the previous question and then were able to provide clear reasons for their opinion. Some students were able to provide a table showing the strengths and weaknesses of their selected policy in terms of its future sustainability with a concluding comment.

Less successful answers failed to state whether or not the policy was effective and failed to mention the future of the resource as a result of the policy. The following is an example of this.

The installation of a water filtration system in Albert Park Lake is likely to be sustainable in the future. It can continue to be replaced over time and can continue to ensure the water flowing into the lake is clean and free of any pollution. It is able to be easily cleared if necessary or replaced over time, and is therefore able to be sustained in the future.

Question 4

Question 4a.

Marks	0	1	Average
%	5	95	**1**

Few students had difficulty quantifying the infant mortality rate of 100/1000 live births and total fertility rates of seven children per woman for Mali from the scatter graph.

Question 4b.

Marks	0	1	2	3	4	Average
%	10	19	27	26	18	**2.3**

Students were asked to describe the overall pattern on the scatter graph, making specific reference to the countries located in groups A and B. Many students had trouble identifying the general pattern. While there were some excellent answers, most were poor, as students tried to establish a spatial relationship between the data that was not evident. The scatter graph is not spatial; it records locations which are spatially arranged. A simple statement such as, 'as total fertility rates per woman increases in a country, so does its infant mortality rate' was rare.

Students were generally competent at reading the variables for individual countries, and identifying the fact that those countries in Group A had low(er) total fertility rates (TFR) and infant mortality rates (IMR) while countries in Group B had high(er) statistics for both variables. Some students commented on the countries in Group A being below the Replacement Rate while those in Group B were above it. However, few students were able to identify the overall pattern shown by this graph, namely the positive correlation between total fertility rates and infant mortality rates, i.e. as one variable increased, so did the other (or as one decreased, so did the other variable).

Less successful responses failed to describe the overall positive correlation between the two variables, failed to identify specific countries in either Group A or Group B, failed to quantify their description or failed to identify anomalies to the overall pattern. Of greater concern were the students who attempted to explain why such patterns were evident. Students must ensure that they read questions carefully and follow instructional terms to access the full mark range. Far too many students incorrectly believed they had to explain the pattern and, in doing so, produced overly general statements of no relevance to the question.

The following are examples of successful responses.

The pattern shows that as fertility rates increase, so do the infant mortality rates. This is shown in Group B with countries such as Afghanistan having a high fertility rate of 6.5 and a very high mortality rate of roughly 156. This is also shown in Group A, Denmark, with a low fertility rate of 1.8 and low mortality rate of 5. An exception is Saudi Arabia with a low fertility rate of 4 but high mortality rate of roughly 12'.

Generally, nations who have an infant mortality rate of below 100 per 1000 live births have a total fertility rate below 4 births per woman. A majority of nations, about 2/3, had these characteristics, including the seven developed nations in Group A which includes Australia. Thirteen of the countries shown had total fertility rates below replacement fertility rates of 2.1, suggesting they had reached Stage 4 or 5 of the Demographic Transition Model. However, most of the nations lie between the levels of Group A and the seven nations in Group B, which have both high infant mortality and fertility rates. For example, Mali has more than ten times Singapore's infant mortality and six more births per woman on average. Angola was an exception with an infant mortality rate of over 180/1000.

The following response shows that the student understands the graph, but failed to gain full marks due to the lack of country names and statistics.

This pattern shows that it is typical for more economically developed countries to have lower birth and infant mortality rates than less economically developed countries. The countries in group A, which are MDECs tend to fall beneath the replacement rate of 2.1 and have quite low infant mortality rates, compared with those in group B which are all LEDCs and have high birth rates and infant mortality rates.

Question 4c.

Marks	0	1	Average
%	49	51	**0.5**

Many students could not accurately define the term 'replacement rate', which is the number of children that a woman needs to give birth to, on average, to ensure that the population remains stable and naturally retains its numbers. Some students incorrectly stated that it was 'the number of babies a woman had to have to replace herself and her husband'. This answer did not show an appreciation of the fact that not all women reproduce, some have more children than others, and that infant mortality rates and gender imbalance are influencing factors.

Many weaker students could not show their knowledge by linking replacement rates to women, and/or preferred to simply say that it is 'when birth rate matches death rate'. Many weaker answers simply stated that it was 2.1, and/or it resulted in a 'stable' population, so failed to define or explain the term. Few students acknowledged that this rate of 2.1 was an average rate.

Following is an example of a successful response.

The replacement rate is that of 2.1 children per woman, which will lead to neither population growth nor decline but rather population stability in the long term.

Question 4d.

Marks	0	1	2	Average
%	20	43	36	**1.2**

Students were asked the significance for a country's future population of a replacement rate below 2.1. Most students could identify the problems of a declining population. Some students suggested the need for governments to address the issue with either pro-natalist policies or targeted migration programs.

The following are examples of successful responses.

Having as birth rate below the replacement rate suggests that the rate of natural increase will decline and that the population itself will eventually decline if immigration levels are not relatively high.

A replacement rate below 2.1 suggests a decreasing population due to low birth rates or fertility rates which is unable to sustain a country's population into the future. This can negatively affect the economy, dependency ratio and pensions' or ' The population will start to get older as less babies are being born there are less people to support the older population. The population will eventually decline.

Question 4e.

Marks	0	1	2	3	4	Average
%	7	11	24	29	29	**2.6**

Most students identified a country, such as China, Kenya, Uganda, Australia, Italy, Sweden or Germany, and discussed at least one factor that had influenced that country's population growth or decline (for example, birth rate, death rate, total fertility rate, infant mortality rate, life expectancy). More successful students described two different population change factors, and clearly assessed why one factor was more influential than the other. They could support their opinion by drawing on actual population statistics. They completed their answer by making an evaluative statement about which of the two factors outlined was more important in contributing to population change. Factors included migration, the baby bonus, the post-war baby boom, the availability of contraception/religious issues, living standards, HIV, education of women, etc. Many students forgot to evaluate.

Less successful students were unable to be specific about how a certain country's population could change, and simply hypothesised. This was adequate provided change factors and the end result were discussed. Such answers fell short, however, when it came to being able to evaluate why one factor was more important than the other, when some elaboration or quantification was required to justify an opinion.

Some students tended to state that the factors were mainly political, historical or social. This was generally acceptable provided the 'factor' was linked to birth rate, death rate, total fertility rate, infant mortality rate, or life expectancy, etc., and finally how population numbers were affected. Unfortunately, many less successful students mentioned the political factor of the One Child Policy without linking this to the effect on birth rate, total fertility rate or population change. Similarly the socio-economic factors of women's education, careers and late motherhood were often mentioned, but this was not linked to birth rate or total fertility rate and population growth or decline. Likewise, health improvements were

mentioned without drawing the conclusion that the infant mortality rate and life expectancy would increase, infant mortality rate and mortality rate would fall, resulting in population growth. There was often garbled, inaccurate coverage of China's population changes since 1949.

The following are examples of more successful responses. The first answer would have been enhanced by the use of statistics to show the actual population decline after each instance.

One factor that effects change in population in Italy is migration trends. In Italy a high number of young adults emigrated out of Italy to other countries which lowered the population of Italy. The death rate effects change in population and in Italy the death rate dropped due to improved medical facilities, improved hygiene and better food. I think the death rate is more significant than migration.

In Kenya, the rate of population growth has changed from 4%+ p.a. to 2.8% p.a. between the 1970s and today. This was predominantly due to the social characteristics being altered by the measures undertaken by the national government, USAID and UNFPA. By dispelling cultural myths about the need for large families, improved access to reproductive health education and contraception, infant and maternal mortality rates have declined: total fertility rates have halved from 8 to 4 per woman. While HIV/AIDS would also have slowed population growth rates with more than 2.2 million Kenyans affected, I believe that social factors rather than HIV/AIDS led to the decline in population growth because the HIV/AIDS infection rates are amongst the lowest in Africa.

In Australia 2 factors contributing to changes in its population have been change in migration flows and birth rate. From 1900 to 2005 the population of Australia has multiplied by 5 to being approx 22 million at the moment. Although immigration has accounted for only 1/3 of population growth as apposed to 2/3 being due to births, migration is the factor that is most significant as many of these births would be a result of people who have migrated to Australia.

Question 4f.

Marks	0	1	2	3	4	Average
%	13	15	30	25	16	2.2

Students were asked to consider a given statement referring to trends of declining infant mortality rates, declining birth rates and rising life expectancies producing an ageing global population, and discuss the statement in relation to one country's population policy.

It was disappointing that many students did not clearly establish a population policy to address the issue of ageing in a country. Rather, they wrote everything they seemed to know about a particular country's demographic characteristics. This question clearly invited students to discuss the problems of an ageing society and policy measures that might or might not have been put in place to address this issue.

Students addressed a range of countries, including China, Italy, Australia, Sweden, Germany and Japan. Policy responses mentioned included cash incentives to have children, such as the baby bonus used in Australia and Italy, age selective migration to fill shortages of skilled workers in the workforce, superannuation schemes to reduce public expenditure on pensions and funding for aged care.

Many students discussed the statement well but did not mention it with relation to the population policy of a country. The following answer illustrates this.

This statement matches my case study on Italy. Italy has a declining mortality rate, declining birth rate and rising life expectancy. The women of Italy want to have careers outside of home and not stay home and be a housewife. This has really affected Italy's population with a replacement rate of 0.1 (?) which has caused the population of 60+ to outweigh the population of 20+.

Following is an example of a better answer.

Trends of declining infant mortality rates and declining birth rates, together with rising life expectancies are producing an aging global population. This is seen when looking at Italy's population and a policy they are implementing to try and counter this aging population is the incentive of baby bonus. When first introduced 1000 euros were rewarded to those for their second and each child after that, however now this payment is being given to parents after each child is born' or 'Australia has several policies aimed at dealing with aging population problems. The $5000 baby bonus encourages couples to have children….' These responses link the answer to the population policy.

The following is an example of a successful response.

This statement is demonstrated in Italy where a fertility rate of 1.19 is a result of social aspirations (i.e. the desire of women to have an education and career), cultural expectations (i.e. the desire for material possessions, a home and career), inflexible work systems and the availability of contraception. Furthermore, Italy is a developed country and thus has the medical knowledge and nutrition levels to ensure a low infant mortality (below 5/ 1000 live births). Similarly, Italy has high life expectancy in keeping with its advanced socio-economic status. These factors have led to both an ageing and declining population which has increased the dependency ratio of 1:1.5 (i.e. workers to non-workers) and has forced the government to reform the pension system so that pensions can be dipped into from the aged of 57. A baby bonus is also offered, yet this token amount of 1000 Euros on the birth of a child has been deemed ineffective. Such policies have not prevented the continued ageing of Italy's population. Immigration rates are not high enough to maintain the current population numbers and therefore cannot reverse the ageing trend.

Question 5

Question 5a.

Marks	0	1	2	3	Average
%	11	11	24	55	**2.2**

This year's maps were generally of a lower quality than those of previous years; colouring was often untidy, labelling was scribbled and often mapping was inaccurate. Topics included HIV/AIDS; desertification; greenhouse emissions per capita; tourism; global fishing; climate change. Some topics were better understood and mapped than others. Teachers should ensure that information is correctly presented if any mapping is required in the examination. More successful students had prepared their map and knew their case study well.

Question 5b.

Marks	0	1	2	3	4	Average
%	15	11	31	18	25	**2.3**

Successful students targeted two clear factors and mentioned locations where this factor was important so the key word of the question, 'distribution', was clearly addressed. This elaboration linked the factor and the explanation. Often the distribution was described but there was no reasoning given, especially for topics such as climate change, or the students focused on results rather than causes. Even for desertification, factors were 'next to deserts' rather than 'overgrazing, over cultivation or use of fuel wood'. Sometimes these were listed but not explained; it seemed that the word 'explain' in the question was overlooked.

There was some weak knowledge displayed regarding desertification, for example, 'desertification is located on the equator in the dry humid places'. Global warming maps of temperature rise predictions often failed to describe factors in the distribution of the mapped details – the physics of land masses in the north compared to sea in the south. Many students produced prepared answers about fossil fuel use without reference to the mapped temperature rise or the topography of areas where sea level rises were seen. The modelled, predictive nature of the maps was missed by many. Use of carbon emission by country is a much better approach to this topic. Answers on fishing often had shaded all coasts and could not then claim that population distribution explained fishing distribution.

Question 5c.

Marks	0	1	Average
%	35	65	**0.7**

This part was done better than the previous two parts. Students who had not done well in Questions 5a. and 5b. were often able to label a relevant example for this section. The need to locate and name was more consistent, though there were some generalised 'Africa' answers for HIV/AIDS. Many students did not locate their example accurately for this question, nor did they state on the map or the key whether it was positive on people or negative on the environment. It was important that the example matched the topic, for example, Lake Victoria for Nile Perch does not match a marine fishing environment.

Question 5d.

Marks	0	1	2	Average
%	18	29	53	**1.4**

This question was very well handled. Successful answers could clearly describe a positive impact on people or negative impact on the environment at the location they had mapped in Question 5c. Better responses also gave very good elaborations about the impact with very good quantifying, which can be attributed to students' excellent knowledge of their chosen phenomena.

Question 5e.

Marks	0	1	2	3	4	Average
%	13	11	25	28	23	**2.4**

This question received mixed responses. Successful answers clearly outlined a specific management strategy to deal with their chosen impact in Question 5d. For example, 'Life and Hope', a local group in Bangkok raising awareness about HIV/AIDS.

Justifying the strategy proved difficult for some students as they clearly did not understand this instructional term. 'Justify' means to give sufficient evidence to support or prove a viewpoint. Many students went into an 'evaluation' rather than a justification.

Some very detailed answers were given to this section that confused 'evaluate' with 'justify'. Though closely linked, tables of detailed criteria were more closely linked to strategies already in place and useful to judge if the strategy was working rather than reasoning if the strategy would be effective, even if it is not as yet fully functional. Students were asked for strategies not policies, and though blurred, a strategy needed to be location-specific and the best answers targeted the specific location of Question 6d. Many answers were too vague, relating to the topic and not the example as asked for in the question. The conviction that local carbon programs will fix the local problems, for example, sea level rise on Pacific and Indian Islands or temperature rise on the Barrier Reef, without reference to the world, was incorrect.

Successful answers also demonstrated a thorough knowledge of their strategy through strong quantification. Many students described the strengths and weaknesses of the strategy at their given location and outlined how effective it might be.

Less successful responses mentioned a strategy but did not elaborate their strategy in sufficient detail.