2024 VCE Geography external assessment report

General comments

In the 2024 Geography examination, many students attempted the whole paper, with few questions left unanswered. Students were able to demonstrate sound geographic knowledge, with some providing well above standard responses throughout the examination.

Responses generally showed a good level of geographic competency with appropriate use of geography-specific terminology. Most students utilised up-to-date case studies and statistics. Lower-scoring responses indicated generalisations, which were, at times, also out of date.

Students should exercise discernment in selecting the most appropriate case study and data to use to respond to questions. Higher-scoring responses used data that added to the depth of their response; lower-scoring responses used data indiscriminately. The application of relevant data in a strategic way is a focus area for guiding students into higher achievement. Responses that included all the numbers that had been learnt indicated an inability to discern what the question is asking. In general, however, the case studies used by students in written responses were appropriate and on-topic. There was a significant reliance on textbook knowledge evident across all areas of assessment. This was particularly evident with the use of Greenland as a case study for Land Cover Change and either Bangladesh or Niger as the population case study for a growing population.

There were a significant number of responses that were off-topic or demonstrated inadequate preparation, particularly in Questions 3 and 9, the two longer 10-mark questions. The use of the formulaic ‘Pattern, Quantity and Exception’ for Question 6 was not required and impacted negatively in some responses. Rigid application of this formula did not support focus on the changes between the two timeframes as the question required. Rote learning of responses, as was evident in some responses to Question 9 in particular, is not encouraged, as it does not support students to address the focus of questions asked in this examination. The application of key skills and key knowledge continues to be the focus of the examination.

Students should ensure they understand the command/instructional terms. Of note in the 2024 examination, questions that directed students to ‘analyse’ or describe ‘to what extent’ required they make a determination of assessment, level of agreement or accuracy and explain this further in their response. The explanation as to the accuracy of their determination was the most important part of the response. This permitted a variation of finite decisions that could be made by students. Responses could either agree or disagree with a statement; it was the geographic reasoning that was being fully marked. Answers should have included underlying analysis, such as positive/negative, social/economic or short-/long-term understandings. It was not possible to fully respond to such questions without first making a determination and then supporting/analysing.

In the Answer Book, lines are included beneath each question as an indication of the depth or length of the expected response; these do not account for variation in handwriting. Students are permitted – and encouraged – to use the extra writing space provided at the end of the Answer Book, if required. Students are to alert assessors should extra writing space be utilised in their responses. This was done well in 2024 by the majority of students. With more writing space included in the Answer Book this year, fewer students required supplementary booklets to complete their written responses.

Specific information

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

This report provides sample answers or an indication of what answers may have included. Unless otherwise stated, these are not intended to be exemplary or complete responses.

The statistics in this report may be subject to rounding resulting in a total more or less than 100 per cent.

Question 1a.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | Average |
| % | 3 | 8 | 30 | 22 | 37 | 2.8 |

The prompt to name the location of a specific example of deforestation is to support students in their response. Common case studies investigated included Cameroon, Borneo and the Amazon rainforest.

Two reasons were required to achieve full marks in this response. Two marks were awarded for each reason, which needed to link to a specific location or case study. Assessors were looking for:

* a statement of reason for deforestation for the current land cover change
* an extended list/narrative of the reason for the land use change at the selected location.

General commentary such as ‘deforestation is caused by logging’ was insufficient on its own to achieve full marks as this is below the expected level of understanding for a Unit 3 student of Geography. An additional contextual explanation that ‘deforestation is caused by logging to sell the timber for economic gain’ would, however, earn the full two marks.

Common errors included students not linking the general causes of deforestation to their specific location or case study. The use of implausible estimations and inaccurate data detracted from responses and could not be awarded marks.

Question 1b.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | Average |
| % | 7 | 5 | 15 | 19 | 25 | 16 | 14 | 3.6 |

This question required students to differentiate two separate methods by which the scale of deforestation was assessed. It required:

* two appropriate ways to assess deforestation at the selected location
* a description, not an explanation, of both methods shown. The description should be relevant to the site not just to the assessment methodology.

If one method was completed, a maximum of half the available marks could be awarded. There was no requirement for students to comment on the effectiveness of this assessment nor to explain each method of assessment in detail. Both methods of assessment selected by students needed to be specifically linked to the single case study / chosen location. High-scoring responses often referred to the scale of the two different assessment types, such as stating that the first method was a broad-scale assessment of deforestation, and the second a local scale. This was not required to achieve full marks but did distinguish stronger geographic responses from more generalised responses.

Question 1c.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | Average |
| % | 5 | 5 | 11 | 19 | 22 | 19 | 19 | 3.8 |

This question could be completed separately to the response given in Question 1b. When responses described more than one management technique, only the first was marked. Marks were awarded for naming and elaborating upon the management technique; however, the focus of this question was on the evaluation of the management technique’s effectiveness in addressing the deforestation impact at a specific location as identified by the student.

High-scoring responses:

* identified impact(s) linked to the management technique at this specific location
* elaborated upon the evaluation; for example, ‘weak but strengthening when …’
* gave a reason or stated the basis for their evaluation related to assessment, addressing specific impact at this location
* used data to support their evaluation of assessment.

The use of accurate, location-specific data to support the student’s evaluation of success or limitations of the management technique were hallmarks of higher-scoring responses.

Question 2

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | Average |
| % | 8 | 16 | 20 | 23 | 33 | 2.6 |

Many responses to this question were generalised and did not address the issue of change over a defined time. This was seen, for example, in responses that stated simply that ice and glaciers had melted in the selected location. The use of accurate data to support the depth and elaboration of the scale of the melt were often absent in responses. Greenland was the most commonly selected location; other locations selected included Bolivia and Pakistan.

High-scoring responses included:

* a general statement about the melting; for example, significant scale of retreat
* the specific time period for change; for example, ‘since 1970 …’
* a specific scale of change; for example, ‘12-metre retreat’
* further depth and elaboration of scale of change such as quantification of rate, or past, present or future changes.

Some responses provided detail about the Holocene period and its three main timeframes. This was not required and, on its own, often an insufficient response. If used as the basis to show that change has occurred over many timescales, however, this could be used to lay the basis for the current depth and elaboration of the melting ice scale of change over a defined period of time.

The following is an example of a high-scoring response:

In Greenland a defined period of time in which icemelt was significant was between January 2019 and December 2019. For this period a total of 600 billion tons of ice was melted in Greenland. Greenland showing the large scale loss of ice for that period. In Greenland furthermore 92% of Greenland's total ice

was melting at some point over these defined period of time and this period can contributed approximately one to two milliliters of sea level rise showing the large scale rate of ice melt in Greenland in this period.

Question 3

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| % | 3 | 5 | 10 | 13 | 14 | 14 | 13 | 10 | 9 | 5 | 4 | 4.9 |

This longer response required students to include more than one natural process, and at least one human activity. The focus of this question was the interconnection between these two components – human and natural. Responses that did not include this aspect were not able to achieve greater than six marks; this occurred in a significant number of responses. Many students were able to write about climate change as a human activity, but the geographic discussion in responses sometimes lacked detail and development. Some responses about climate change as both a human activity and as a natural process struggled for clarity. Common inaccuracies in responses included description of the albedo effect and the ozone layer, how they function, and the role they play in contributing to global warming.

Features of high-scoring responses:

* The information provided was unique to the selected location, rather than generic coverage with an unrelated example of a location.
* Both the concept and reality of climate change was evident.
* Discussion was written in full, rather than being presented simply as a list of causes of the phenomenon.
* The interconnection was often presented as the combination of natural and human processes working together to increase either the scale or rate of the melting.
* While a broad timescale may have been included, often to show how climate change is a natural process over millennia, the emphasis of the interconnection focused on the current time period.
* Use of appropriate, accurate data to back up statements related to the selected location.

Some low-scoring responses about the impacts of melting ice sheets and glaciers upon humans and the natural environment read as though they were prepared responses for a different question.

All students are encouraged to read the entire question when formulating their response, rather than focusing on keywords that do not cover all aspects of the question.

The following is an example of a high-scoring response:

The Natural process of decreasing albedo of Greenland’s ice sheet is contributing to its ice melt. Ash from volcanism, dust from deserts for around the globe as well as other impurities are blown onto Greenland’s ice sheet making it darker, making is absorb more radiation from the sun and more ice melt. These impurities called cryoconite which gather on the ice’s surface and form clusters of accelerated ice melt. This natural process that decreases Greenland’s ice albedo has a strong interconnection with the human activity of fossil fuel combustion, primarily in Europe through coal-fired power stations. This human activity releases soot into the atmosphere which is blown onto Greenland’s ice sheet by strong trade winds. The vast quantities of fossil fuel that has been combusted since the industrial revolution has resulted in approximately 1.9˚C of warming on average globally, due to the enhanced greenhouse effect. Thus, large quantities of soot reach Greenland. This accumulates on the ice surface and is covered by snow fall. Future melting uncovers these impurities which decreases the ice’s albedo further, contributing to ice melt. Recently it was determined that the average surface temperature in Greenland has increased by 2.8˚C. Thus, a significant signpost to the contribution continuing albedo from both natural and human source has on ice melt in Greenland.

Question 4a.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | Average |
| % | 6 | 23 | 46 | 25 | 1.9 |

Students were required to write about satellite images or remote sensing; the majority completed this accurately. A few students mistakenly wrote about the photographic images in the Data Book provided in the examination. High-scoring responses identified how the technology would be used, such as relating to change over time, by writing, for example, ‘from one year to the next’ or ‘before and after work on this land use change has occurred’. Students were to detail an example, such as comparing the previous width of a street with the possible new width. Students were also expected to discuss the merit of such images, such as their reliability or clarity in assisting the identification of land use change.

The following is an example of a high-scoring response:

In order to identify land use change in Varanasi, India, the analysis of satellite images could provide the process and scale of change on a spatial (size of region affected) and temporal (comparison of images from 2000 to 2024) distribution. By comparing satellite images from different years, the geographer could analyse the bird’s-eye view image of the area and geographic characteristics that may indicate likely land use change. For example, comparing the number of motor vehicles would imply a change from semi-residential to transport land use increases.

Question 4b.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | Average |
| % | 9 | 14 | 43 | 33 | 2.0 |

High-scoring responses to this question stated the geographic technique utilised and explained why this would be a good data source. Well-scoring responses included the use of ‘surveys of the local population’ or ‘the use of photographs as in the data book’ to determine the local impact of the change in land use to inform the geographer. Excellent responses referred to the difference in the local scale of this information as opposed to the wider information collected in Question 4a. Some responses mistakenly referred to a ‘secondary response’ instead of a ‘second response’, which is a primary data collection form not a secondary data collection form. No marks were awarded for answers that mentioned the use of satellite images or other forms of remote sensing; the question explicitly stated these were not to be included, but the statistics suggest this was a common error. Students are reminded to read the entire question carefully.

The following is an example of a high-scoring response:

Another source of data that the geographer could use in an investigation of the change in land use at Varanasi is data created via interviews. This can help to attain knowledge on how long the change took, its impact on residents, the ways the change happened and much more. This data is valuable as it is primary data that comes straight from the source and also considers individual perspectives which many other types of data do not.

Question 4c.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | Average |
| % | 4 | 7 | 25 | 33 | 30 | 2.8 |

Students were required to elaborate on a geospatial technique, providing its name and a description of its use. To fully answer this question, responses needed to describe the context of use of the geospatial technique at students’ specific fieldwork site and the land use change under review. Responses at times did not refer to the fieldwork site nor include any indication of the land use before and after change. While not explicitly stated in the question, and therefore not required for marks, it was nevertheless more difficult for responses to describe the use of the geospatial technique in fieldwork without stating the land use change at a given location.

A maximum of two marks were awarded if the technique described in the response was not a geospatial technique accompanied by a clear link to their specific fieldwork site. This occurred in a significant number of responses. Once again, students are reminded to read the whole question carefully.

The selection of land-use change case studies was varied. Many students wrote about urbanisation at the rural/urban fringe. Commonly selected Melbourne-based fieldwork sites included the Docklands, the land use change at Fishermans Bend or the former Alphington paper mill.

The following is an example of a high-scoring response:

One geospatial technology used at my fieldwork investigation about the impacts of industrial to mixed use residential land use change at Altona North Precinct 15 was a geotagged Survey 123 traffic count. I conducted a traffic count along the southern boarder of the precinct, which was Blackshaws Road. These results were then uploaded along with a location pin by Survey 123, where they were placed on a GIS map with other people traffic count. I used the data to identify traffic as a potential impact, with 71 cars recorded in 5 minutes.

Question 5

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | Average |
| % | 5 | 9 | 23 | 21 | 42 | 2.9 |

All students who attempted this question were successfully able to identify an ageing population. Most common case studies were Germany and Japan; some students also wrote about Australia. Most students were able to state one demographic characteristic, and often stated two for a full response. The use of these characteristics to then classify the country as ‘ageing’ was less successfully completed. The use of accurate data such as the elderly dependency ratio was a sound choice of demographic characteristic to include; however, an explanation of the support that this number gave to the country’s being classified as ‘ageing’ was often omitted or not explained well. A number of responses provided two demographic characteristics, but gave an explanation of how this contributes to the ageing classification for only one. Low-scoring responses included generalities, such as identifying the number of people above the age of 65 as a demographic characteristic and explaining this characteristic as having many older people.

The following is an example of a high-scoring response:

* Japan contains a large percentage of its population at the age of 65 yeas and above making up 25% of its population.
* Japan also contains a low total fertility rate (TFR) of 1.14 which is well below the replacement rate of 2.1
* This supports that Japan is currently in late stage 4 of the DTM, with low birth rates and high life expectancy leading to population decline.

Question 6

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | Average |
| % | 2 | 4 | 9 | 18 | 23 | 24 | 19 | 4.1 |

To fully respond to this question, students needed to refer to and use both maps provided in the Data Book. Responses needed to cover both time periods and correctly identify regions, not necessarily countries, across the distribution as presented in Figure 2. In describing the distribution, higher-scoring answers showed accurate quantification, effectively employed and included a level of geographical literacy, and showed concepts such as change, regions identified and global spread at each time period. Although it was not required, a significant number of responses did name specific countries.

The following is an example of a high-scoring response:

Within 2000, Europe was the primary region experiencing a population decrease, with countries such as Italy and Greece experiencing less than 0.2% natural decrease per year. Other than European countries and Russia in 2000 no other regions are experiencing natural decrease in comparison, highly concentrated to this region. Whereas, in predicted regions of population decrease in 2050, not only has it spread into the western regions of Europe it has also increased in intensity. With predicted 0.2-0.5% decrease per year in Italy and more than 0.5% in Greece. Yet, in addition to this East Asia and the Americas are predicted to experience natural decrease. In countries such as China, Japan, Canada and Chile predicted to experience natural decrease in 2050.

Question 7a.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | Average |
| % | 4 | 11 | 31 | 24 | 31 | 2.7 |

This question required an explanation for the high proportion of those aged 19 and under in the population structure of Country A, as shown in the Data Book’s population structure. Two reasons were required; one reason could only receive a maximum of half the available marks. Explanations needed to go beyond a description of the wide base and the ‘bottom heavy’ nature of the population structure. Responses could have included the high crude birth rate, higher than the 2.1 replacement rate; or a falling infant mortality rate alongside a persistently high crude birth rate; some answers could be partly descriptive. Country A’s position on the Demographic Transition Model – that is, late Stage 1 or early Stage 2 – could also have been used to explain the significant number of the population below 19 years of age. Social and economic reasons such as the need for rural labour, old-age security and replacement rates could be given. Religion was not an acceptable reason, unless it was specific to a country or society.

The following is an example of a high-scoring response:

One cultural factor potentially contributing to the high youth dependency ratio exhibited in Country A, Figure 3 is cultural norms around women's role as homemakers and childbirthers. This would contribute to the high proportion of youth by increasing the fertility window of women as well as their desire to have kids, thus increasing birth rates and youth dependency. One social factor could be reduced access to contraception. Countries where less funding and resources are put into the provision of reproductive services will thus have less means to reduce birth rates, contributing to high youth dependency.

Question 7b.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | Average |
| % | 7 | 10 | 20 | 25 | 21 | 10 | 6 | 3.0 |

Many responses did not fully answer this question. Most were able to provide a basic statement that life expectancy will increase. Responses were expected to use data from Figure 3 and include specific reference to Country A. The link between the infant mortality rate and the need for replacement children to support the family and older family members was commonly explored; the link between better health resources/access resulting in a lower infant mortality rate and improving life expectancy was also explained well. The nature of the changing impact over decades was less frequently addressed; clear responses that did address this part of the question may have included some reference to moving from Stage 2 to Stage 3 of the Demographic Transition Model and the consequence of this for the life expectancy of Country A.

A significant number of responses repeated the question as a statement; this did not score well. High-scoring responses commented on the population momentum and a resulting increased longevity due to improved life chances, with respect to health and economic prosperity, and higher rates of child survival. These responses also commented that such changes were accompanied by decreased births, meaning lower maternal death rates and thus an increased life expectancy rate.

Question 8a.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | Average |
| % | 16 | 19 | 28 | 21 | 15 | 2.0 |

Many responses misidentified the focus of this question, often focusing on Malthus’ theory and the point of crisis when resources are insufficient to meet the population’s needs. However, such responses did attain some marks if well expressed and explained. This question was, however, asking students to outline the main reasons for variations of population growth developed in Malthusian theory. Ideally, the variations in population growth would include the following.

* Working class will reproduce at a rate greater than food production, which is a population increase.
* A point of crisis is reached when food resources no longer keep up with population growth.
* The population checks of famine, war and disease will reduce population.
* A population increase will follow as society and economy recover.

Question 8b.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | Average |
| % | 4 | 6 | 12 | 18 | 22 | 21 | 18 | 3.9 |

Students needed to state their determination as to whether the provided data did or did not support Malthus’ prediction, and then explain how closely Figure 4 supported this prediction. Many students were able to stipulate that countries with high food insecurity and corresponding high fertility were supportive of Malthus’ prediction reaching a point of crisis. Populations with low food insecurity and low fertility were not necessarily supportive of Malthus’ prediction. Those responses that referenced the quantifying data in the provided graphic, using contrasting quadrants or country names to support or reject their reasoning, were able to attain full marks. Elaboration in higher-scoring responses showed an understanding of Malthus’ theory and/or provided further information relating to the examples.

The following is an example of a high-scoring response:

Malthusian theory predicted that as population grew exponentially, it would outstrip food and resources, which he predicted to grow arithmetically. Such as in Figure 4 where a total high fertility rate is positively associated with food insecurity. His theory also predicted that variations in population growth would occur from two main causes, positive and preventative "checks". Positive checks and natural variations which keep population growth in check, such as disease or famine, resulting in higher death rates which reduce population. Meanwhile preventative checks occur often often because of government or proactive actions such as policies to increase contraception thus reducing birth rates. E.g. The One Child Policy in China.

Question 9

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mark | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Average |
| % | 3 | 4 | 7 | 10 | 12 | 14 | 15 | 12 | 9 | 7 | 6 | 5.4 |

This question required students to analyse the causes of the issues and challenges of growing populations. Most students wrote about an appropriate country as their selected growing population. More than one cause was required to fully complete this question.

Responses that included analysis specific to the identified location rather than providing generic coverage of the causes of the issues and challenges of growing populations scored well. The highest-scoring responses classified causes as economic or social and identified resulting issues and associated challenges. Some strategies and responses could be interpreted as challenges with use of appropriate data to support the statement and add depth to the analysis given. Lower-scoring responses may have included thorough detail about issues and challenges in a country with a growing population and, if written well, even if they did not provide causes, could have obtained half the marks available. Many responses read as if they were a pre-prepared response.

Some responses misidentified and labelled issues as causes, and both causes and issues as challenges to be faced. In particular, responses tended to use the terms ‘issue’ and ‘challenge’ interchangeably.

A reminder of these terms:

* a cause contributes to changes in a population, such as growth
* an issue or issues may result from these changes
* a challenge is what needs to be responded to by the government or external organisations.

Nearly all students wrote about the case studies of either Niger or Bangladesh, though occasionally the focus was on Saudi Arabia. Of note, the rural-to-urban migration in Bangladesh was used as a cause of growing population. This was not accurate. Though there is a change in the distribution of the population, the country’s overall population does not grow in this instance. The migration of workers from external countries into Saudi Arabia for work, however, does cause the population to grow and was able to be utilised as a cause to respond to this question.