

2018 VCE Extended Investigation: Critical Thinking Test examination report

General comments

Students were expected to be able to comprehend, analyse, interpret and assess issues. They needed to provide interpretations and value positions rather than matters of fact, and they needed to consider conflicting views and produce clear lines of argument.

It is important to be aware that students' background knowledge is not assessed. Students who lacked familiarity with an issue they were discussing but who still produced a response demonstrating genuine critical thinking scored well.

Questions 1 and 2 were objectively scored. In other questions, there is reason for thinking that some responses are easier to justify than others, but it is expected that students will offer a range of views, and these different answers have to be judged on their merits.

In assessing arguments in this test it is important to be able to explain why a judgment is made by a student, but it is recognised that such explanations are difficult to make meaningful. Responses that seem general and formulaic are less valuable than specific and particular comments. The reasoning and explanations of students are often implicit in the responses they offer, but such implied reasoning may be inferred and rewarded.

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.

Questions 1 and 2

The drag-and-drop items required students to see how comments relate to each other in terms of a proposition, and how they can be envisaged as arguments about an issue.

Questions 1 and 2 are objectively scored as indicated below.

Question 1

Marks	0	1	2	3	4	Average
%	2	13	30	24	32	2.7

Students were asked to consider the proposition that permission to fly any kind of drone should depend on passing a test.

(The statements in the table below have been labelled 1–9 for the purposes of this report, but the statements were not labelled this way on the test. The italicised statements are the drag-and-drop items.)

For	Against
Drones can pose a safety risk and can compromise people's privacy. (statement 1)	<i>There are laws that restrict and control the use of drones.</i> (statement 2)
<i>Drones can carry cameras or even weapons.</i> (statement 3)	Flying a drone as a hobby is a harmless, enjoyable family activity. (statement 4)
Anyone flying a drone must have the necessary skills. (statement 5)	<i>Flying a drone is not difficult.</i> (statement 6)
	Drones are a smart technology with many valuable uses. (statement 7)
<i>Drone operators must demonstrate that they know all the rules.</i> (statement 8)	Restrictions on flying drones should only be introduced if and when there is a problem. (statement 9)

Categorising the drag-and-drop statements as 'for' or 'against' the proposition would be likely to place statements 3 and 8 as potentially supporting the free use of the drones, while statements 2 and 6 as potentially criticising of the free use of drones.

There were two empty cells on the 'Against' side of the table. Statement 1 offered a reason for controlling the flying of drones, which could be countered by statement 2 describing laws already in place controlling the use of drones. Statement 5 about the skills necessary for flying drones is mitigated by statement 6 that flying drones does not need great skill.

There were three empty cells on the 'For' side of the table, so students needed to decide which of the 'Against' side statements were related to them. Statement 3 offered potential dangers associated with drones, countering statement 4 that drones are harmless. Statement 8 asserted that knowledge of drone regulations must be demonstrated and, it can be inferred, this can be done with the introduction of a test. Statement 9 countered this by asserting that restrictions should not be introduced unless problems are evident, therefore, by inference, a test should not be introduced for the sake of having a test. Neither statement 3 nor statement 8 countered statement 7, which asserted the value of drones.

Question 2

Marks	0	1	2	3	4	Average
%	8	14	25	18	35	2.6

Students were asked to consider the proposition that there should be a national database of genetic information that includes everyone in Australia.

(The statements in the table below have been labelled 1–9 for the purposes of this report, but the statements were not labelled this way on the test. The italicised statements are the drag-and-drop items.)

For	Against
<i>A national database of genetic information would deter crime.</i> (statement 1)	Law enforcement should be subject to controls and restrictions. (statement 2)
The genetic information of individuals would only be available for purposes approved by parliament. (statement 3)	<i>A national database of genetic information would give too much power to the police.</i> (statement 4)
The interests of the community are more important than those of the individual. (statement 5)	People have a right to privacy. (statement 6)
	Genetic identification techniques are not perfect. (statement 7)
<i>Australia currently collects the genetic information of convicted criminals. Why should the innocent object to having their genetic information recorded?</i> (statement 8)	Genetic information can be used for purposes that individuals can reasonably reject. (statement 9)

Statement 3 and statement 4 both considered the possible misuse of the database. While statement 3 emphasised the way misuse of the database can be avoided, statement 2 focused on the increase of police power, with the implication that this would be a misuse of the database. Statement 6 focused on the rights of the individual to privacy, while statement 5 qualified this right. Statement 9 challenged the idea offered in statement 8, that the innocent have nothing to fear from a genetic database. Statement 2 spoke to the wider issue of law enforcement that offers a challenge to the underlying assumption of statement 1 that the ends (deterring crime) justifies the means (creation of a genetic database).

Question 3

Marks	0	1	2	3	4	5	6	Average
%	2	8	20	28	25	14	4	3.3

Question 3 invited analysis of a set of opposing arguments about whether Australia should trial a universal basic income (UBI). Students were required to choose the argument that they found the most convincing and explain why. They were also directed to analyse the arguments presented rather than offering their own opinion about the proposition.

In higher-scoring responses, students made use of the introductory statement and all the arguments provided to inform their understanding. Having selected the argument they considered to be the most convincing, students developed their judgment and explanation in light of their critical consideration of the information available. Lower-scoring responses tended towards paraphrase rather than interpretation of the available information.

The following high-scoring response provided a detailed and sophisticated elaboration of a central issue in argument D., about the possibility that a UBI will enrich the community. The response identified the appeal of a UBI, explained why more non-work time is appealing in the current circumstances, and related a UBI to the mental and physical well-being of individuals. The

response provided an explanation that showed an imaginative and sympathetic understanding of the issue.

D. If they do not have to work, some people will take their leisure activities seriously, so as to enrich themselves and society as a whole.

D is the most convincing as it plays on ones sense of community by stating that a UBI system could in fact enrich the community and make Australia a greater place to live. In today's society it is almost impossible to create and maintain healthy relationships as people are always working, as stated in argument D, if people have less time at work they will have more time to help grow themselves as a person and make social connections they otherwise would have been unable to create. By having a society in which everyone feels connected to each other and to their community, everybody will have a greater sense of life satisfaction leading to a socially, mentally and even physically healthier society overall. If people are enriching themselves this means that mostly our society will become filled with citizens who have greater skills and a healthier mindset compared to our current model of society in which people are often overworked and do not get the opportunity to attempt enriching themselves or grow their skill set. An enriched society further adds to the sense of community that would be felt by all citizens, and also assists some people's mental health which can also lead to positive developments regarding their physical health.

Question 4

Marks	0	1	2	3	4	5	6	Average
%	1	3	17	27	26	20	6	3.6

For Question 4, students offered their position for or against the proposition that nationalism should be discouraged in the interests of international harmony. The terms of this question allowed students to introduce arguments of their own, although most used the arguments presented, or a version of them.

In the following high-scoring response the student attempts to rebut the claim that, like the family, nationalism encourages sympathy and unselfishness, by arguing that the feelings encouraged by nationalism do not become international. The final sentence is a summation of the view.

Nationalism should be discouraged in the interests of international harmony. The very definition of the word nationalism is to devote ones interests to their own country rather than any other nation which can easily put a barrier in moving forward to achieve international harmony.

A strong national identity leads to extreme nationalism. This can be destructive as it creates an us against them attitude. This can lead to racism and xenophobia even though nationalism in itself is not racist, the implications of nationalism can be. This is extremely harmful in trying to achieve international harmony as acceptance of other cultures and the mutual understanding that one culture is better than the others is critical in achieving this goal. Nationalism can only hinder this as its social effect can be widely devastating.

Patriotism is also used as a weapon to separate people. It is a powerful tool to create hate for people who are 'other' which is not in the interests of international harmony. Nationalism and patriotism can induce violence to people that are seen as 'other' which creates a hostile environment for people of different nations.

Some people say that patriotism encourages sympathy and unselfishness like family attachment. This is true but only to the people of ones nation. While these are good qualities to have it encourages people to only be sympathetic to people of their nation which does not help in achieving international harmony. The sympathy and unselfishness must be spread to everyone not just the people of some ones nation.

The only way forward to achieving international harmony is through discouraging patriotism and encouraging the equal treatment of all cultures. When people put the interests of everyone over the interests of one nation that is when international harmony can be achieved.

Questions 5 and 6

These questions involved analysis and assessment of research questions and were generally well answered. The highest-scoring responses focused on what would be involved in answering a particular question. Responding to both questions involved envisioning how a research question might be answered.

Question 5

Marks	0	1	2	3	Average
%	2	19	49	29	2.1

The following high-scoring response selected question **A.**, recognising that the research would be dependent on a hypothetical change, and that conclusions would be speculative rather than rigorous or accurate.

A. Would consumers pay less for gas and electricity if these commodities were owned and managed by governments?

Question A would be the most difficult to answer because unlike all the other research questions, it aims to investigate the possible effects of a hypothetical change. While all the other questions can easily be assessed via an experiment or data analysis, question A would rely on prediction, which is inherently difficult to do accurately. Of course it is hard to predict the future, and this research question aims to predict the affect of a potential change in policy, while the specifics of the policy are unclear. What if the management by government is poorer than predicted, and costs blow out? This could not be predicted by the investigation, but it would instantly mean the answer to the question is not accurate. So while question A certainly could be investigated and answered, assuming the correct resources and expertise is available, its answer is not likely to be rigorous, or very accurate.

Question 6

Marks	0	1	2	3	Average
%	3	37	47	13	1.7

The following high-scoring response envisaged an experimental approach that would make D the easiest question to answer.

D would be the easiest to answer as it is very specific in the intervention being introduced, namely music by Mozart, and also clearly outlines the participant demographic and end goal. There are no ethical issues as music has no negative side effects whatsoever, and requires no physical handling of a baby by the experimenter. A conclusion can be reached simply by making babies listen to Mozart and other genres of music over a few days and recording results. An infant which constantly cries and doesn't go to sleep is an issue in many households worldwide, meaning the conclusion of the experiment is also significant in that it could affect almost every family on the planet. The research, whilst not complicated in nature, is clearly the easiest to answer.

Questions 7–10

The tasks of generating arguments for and against a proposition in Questions 7–10 were challenging for some students. Students found it more difficult to produce arguments against propositions than for propositions.

Question 7

Marks	0	1	2	3	Average
%	1	22	51	25	2

The following response provided a sound discussion of the experience of the city of Melbourne, arguing that walking is practical and that car transport is not convenient. The issue of cross-town traffic was considered, and alternative routes are recommended. The final sentence provided a neat summary.

The CBD of Melbourne has a broad spectrum of vibrant cultures and facilities. Many people work there, many people go for recreational purposes and many go to experience Melbourne's unique blend of cultures. Unlike many other cities, especially larger ones such as Los Angeles, London or NYC, Melbourne's CBD is quite small. If one wanted to walk through the city it wouldn't take very long (personally I can walk from Melbourne Central to Flinders st in 10 minutes, thus traversing the North to South sides of the CBD). If you didn't want to walk you can easily catch any of the numerous tram lines that run in a grid through the city, all of which are free as long as you are travelling in the CBD. The need for cars is almost obsolete if you are trying to get around the CBD.

Oftentimes you will wait longer in the traffic, than if you walked. One could argue that if you are instead trying to get through the city to reach the other side to go to some different place, driving through the city is the most direct route. While this may be true, there are many alternatives, such as a few 'city bypasses' that currently exist, and the many more that could be created in the future. This would enable drivers to avoid city traffic (bikes, trams, pedestrians), and reducing the travelling time. In effect, the presence of cars in the CBD creates issues for everyone wishing to experience the city, and in the end doesn't improve the driving time for most.

Question 8

Marks	0	1	2	3	Average
%	3	28	53	16	1.9

The following high-scoring response elaborated on and explained the negative economic impact of banning cars from the CBD and the impact on convenience and safety for individuals.

If cars are banned from Melbourne, both businesses and the individual will suffer greatly. Without a convenient way to bring large quantities of a company's product into the city, businesses will be forced to either relocate or downsize in order to avoid bankruptcy or shutting down altogether. How can this be expected to do anything but hurt Melbourne's economy? Further, all delivery services would be unable to deliver in the city, cutting out a massive portion of their customers and therefore profits. Uber, the most popular car service in Melbourne, would no longer be able to make trips to one of its biggest areas of profit – individuals could no longer use it in the city, creating another inconvenience. The safest way to get around, especially at night, would be ruled out in the city – one of the most likely places for anything unfortunate to happen to an individual. Banning cars in the centre of Melbourne could only hurt the city.

This is a strong argument because it utilizes multiple points from economic and personal standpoint in a side-by-side structure of reasoning. Its claims about the profits of businesses such as delivery businesses and Uber can be backed up with statistical evidence, this qualifying the claim that banning cars in the centre of Melbourne would do great economic harm to everyone. The implications of this argument are that the issues would be long-standing and, unless the ban was lifted, essentially unsolvable, making clear the need for cars in the centre of Melbourne and thus strengthening the argument.

Questions 9 and 10

These questions focused on whether citizens have a right to inconvenience others with their protests. Some students did not notice this nuance, and argued that there should be no right to protest.

It was evident from student responses that students found it easier to support the proposition in Question 9 than challenge the proposition in Question 10.

Question 9

Marks	0	1	2	3	Average
%	4	24	45	28	2

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

Argument:

The right to peacefully assemble grants Australian citizens a means to protest perceived injustices and potentially generate positive societal change without causing harm to others through violence or hate-speech.

In comparison to the alternative, wherein this right is revoked and Australians may resort to violent measures in an attempt to make a statement, the argument that peaceful protest is 'inconvenient' to others becomes irrelevant.

Why:

This argument is strong because I have explained the considerable benefits of the right to peacefully assemble with reference to the harmful effects of this right being hypothetically revoked, and then used the weight of this statement to comparatively defend the proposition against the possible argument that it is 'inconvenient to others'.

Question 10

Marks	0	1	2	3	Average
%	10	37	40	12	1.6

The following high-scoring response claims that there are other forms of expressing views without inconveniencing others. The student offered a clear summation of the line of argument.

Argument.

The right to peaceful assembly allows protest through physical gathering that can disrupt the crucial flow of business, travel and planned events and thus take a harmful toll on the community as a whole.

Some may defend this right with the claim that the only alternative is violence or other types of decidedly non-peaceful assembly, but this argument fails to address the calm and effective middle-ground of vicarious communication/protest through means such as letter-writing or social media appeal that convey a message peacefully but without widespread inconvenience to others.

Why:

This is a strong argument because it considers and explains the possible inconvenience caused by the right to peaceful assembly, alongside the possible argument of violence as an alternative, and then presents a peaceful and effective alternative method of protest and vicarious 'assembly' that removes the inconvenience to others of the proposition.