

# THINKING SKILLS

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Paper 9694/01  
Multiple Choice

<i>Question Number</i>	<i>Key</i>	<i>Question Number</i>	<i>Key</i>
1	A	21	D
2	C	22	A
3	D	23	B
4	E	24	E
5	D	25	E
6	C	26	E
7	D	27	D
8	C	28	B
9	C	29	E
10	B	30	C
11	E	31	A
12	C	32	B
13	A	33	C
14	B	34	B
15	E	35	D
16	D	36	C
17	B	37	A
18	C	38	C
19	C	39	B
20	E	40	D

# THINKING SKILLS

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<p><b>Paper 9694/02</b> <b>Critical Reasoning</b></p>
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Generally speaking, the paper was done well. There was a wide range of responses, from the candidates who gained full marks with very high quality answers to those who simply copied parts of the stimulus material into their answer booklets, and were restricted to single figure marks.

## Question 1

On the whole this question was well answered. Candidates found the scenario accessible and engaging and were able to evaluate the credibility of the evidence. Some candidates were also able to consider the plausibility of different possible courses of events. Weaker candidates tended to speculate and write stories about what happened, but to a lesser extent than in previous years.

- (a) Those candidates who knew that a vested interest is a motive to lie about events because there is something to be gained or lost by lying were able to say that Mr Tlali had a vested interest to lie to defend himself from the accusations of his neighbours (especially if he had hit Vaidhya). Candidates who did not know what a vested interest was tended to say that Mr Tlali was interested in walking in the park and were thus unable to access the marks.
- (b) Some candidates confused relevant and reliable, but most were able to access at least one mark, and many were able to get full marks for saying that Hua-Ann did not say anything of direct relevance to the dispute, but that her character references were indirectly relevant.
- (c) Most candidates were able to assess the reliability of Mrs Kapoor's and Vaidhya's evidence by talking about their bias, the conflict between their accounts, and Mrs Kapoor accepting her son's evidence without question. Some candidates referred to the physical evidence, which was also acceptable. Weaker candidates tended to say that Mrs Kapoor's evidence was reliable because she agreed with other witnesses about the time of the dispute/that there was a dispute. There is, however, no question over the time or existence of the dispute, so assessment needed to focus on issues which were contentious.
- (d) Most candidates were able to provide an acceptable conclusion with some evaluative reference to the evidence. The strongest candidates produced a thoughtful argument which evaluated the evidence and considered the plausibility of different courses of events. Weaker candidates made sweeping statements about what a twelve year old boy would or would not do, or what an old man would or would not do.

## Question 2

On the whole, candidates responded well to the provocative subject matter and provided thoughtful answers. Some candidates, however, allowed their preconceptions about the subject matter to interfere with their critical thinking.

- (a) Most candidates were able to identify one reason, but there was a tendency to confuse evidence and reason.
- (b) There were many strong answers to this question with candidates justifying their view well.
- (c) The best candidates were able to say that it was only partly reasonable to use evidence from the business world to support the claim that 'we need more women leaders' because, although the business world dominates the political world, they are not identical. Weaker candidates tended to quote parts of the passage or disagree without focusing on the question.

- (d) A number of candidates allowed their prejudices about the subject matter free rein in this question. Some of them matched the sweeping generalisations from the original stimulus passage, which meant that they did not write strong arguments. Teachers should remind candidates that the stimulus passages are written to contain flaws and weaknesses so that candidates can evaluate them. Candidates should write their own arguments to be as free from weakness as possible. Although it was possible to attain full marks with an argument which fully supported or fully opposed the conclusion, the arguments which were most likely to be judged coherent tended to argue that, although there is a case for us to have more women leaders to ensure representativeness, leaders should be chosen for their characteristics such as integrity or decisiveness. These characteristics are not generally determined only by gender, so gender should not be a primary concern in choosing leaders. Teachers might also work with candidates on the ways in which reasons support conclusions.

### Question 3

This question was generally found to be the hardest, although it was better done than in previous years. It focuses on scientific reasoning, which involves drawing conclusions, using evidence and reasoning to support a claim, and interpreting numerical and visual data. Candidates have been particularly poor at interpreting and drawing conclusions from numerical and visual data, and this year was no exception. However, there were some very strong answers to part (c), which involved evaluating and using the evidence.

- (a) (i) Only a very small number of candidates gained full marks for this question. Given a pie chart in which 71% of total casualties were in a car, and 9% were on bicycles, most candidates agreed that people in Hampshire were 62% more likely to be injured in a car than on a bicycle. This demonstrates a very poor grasp of fairly basic interpretation of figures. Subtracting one percentage from another does not give percentage of probability. More able candidates recognised that this is not how to find likelihood, or that there are likely to be more cars on the roads, or that a figure about casualties does not tell us just about injuries.
- (ii) Most candidates were able to access two marks by saying that some concerns increased whilst others decreased, so the claim could not be reliably concluded. A very few considered the significance of the different concerns or the amount by which they rose or fell.
- (b) Most candidates were able to identify one reason, but there was confusion between reasons to support the conclusion and evidence that supported the reasons. Some candidates interpreted population as 'number' which affected their answers. This misunderstanding was common to candidates who had English as a first or non-native language.
- (c) This question asked candidates to use and evaluate the information in the stimulus material to answer a question. Most candidates were able to use the information, but very few evaluated it. This would be an area to work on.

### Question 4

As ever, the open nature of this question helps some candidates to express themselves at their own level, but for others, particularly the unprepared, the lack of directed questions can be problematic. Candidates seemed to engage with the subject matter, but not really with the argument itself. For example, the argument exaggerated the annoyance of listening to other people's music on iPod speakers in public transport. Candidates tended not to pick up on the exaggeration, or the fact that the exaggeration meant that the conclusion was weakly supported. They did, however, say that you have to turn your iPod up on the bus or the train because they are noisy environments. This response was irrelevant to the issue. Candidates were also quick to defend young people's ability to appreciate music – but only a small number were able to say that the paragraph at the end about young people not appreciating music was irrelevant to the main argument.

- (a) Most candidates could not identify the main conclusion. They did not even make the mistake which in other years has been common, of identifying the most important intermediate conclusion, 'that we need to take action' as the main conclusion. Instead, they chose claims from the first or last paragraphs, 'young people are damaging their hearing,' or 'young people do not appreciate music.' This depressed performance. There is a clear need for teachers to work with candidates on what it means for a reason to support a conclusion.

Some candidates paraphrased the text, or wrote random quotations from it with no indication as to their structural roles. These candidates did not access marks. A number of candidates attempted to analyse the whole argument as it is set out in the mark scheme – and many of them did so very well. Teachers should note, however, that this is a time consuming exercise. The whole argument is analysed in the mark scheme to aid teachers when they are working with classes. In order to attain full marks, candidates need only identify the main conclusion, the 'key reasons' – the claims highlighted in bold type in the mark scheme - and give some indication of structure. This would include labelling an intermediate conclusion (normally one which is supported by other key reasons and which gives support to the main conclusion), or in this case, labelling the counter argument as such would have been sufficient.

- (b)** Many candidates were able to identify some unstated assumptions or weaknesses in the argument, although most continue to provide weak disagreement or counter argument rather than evaluation of the reasoning presented. Some continue to quote parts of the text and call this 'unstated assumption.' Assumptions are missing parts of the reasoning – they are not written down.
- (c)** Candidates who had misidentified the main conclusion tended to struggle with this part of the question. Although candidates are not penalised twice for the same mistake, it is very hard to write an argument to support or challenge the claim that 'young people are damaging their hearing' as this is a matter of fact rather than persuasion. Evidence could support or refute this claim – but candidates do not have access to evidence in exam conditions. One very successful further argument here related to freedom of choice. Less successful arguments included suggestions that music needs to be loud for it to be fully appreciated.

# THINKING SKILLS

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Paper 9694/04  
Applied Reasoning

## General comments

This paper produced a healthy variety of responses from candidates. The average candidate found the Problem Solving and Critical Thinking parts of the paper equally accessible (i.e. gaining roughly 40% of his/her total marks on Problem Solving).

## Comments on specific questions

### Question 1

Most candidates were able to access this question, with about half achieving 4 marks or more. There were far fewer numerical errors than in previous Problem Solving questions. This was probably simply due to the relatively low numbers in the question stem.

- (a) (i) Most candidates were able to offer a solution to this, even if they missed the optimal solution.
- (ii) The answer to this question built logically on the answer given in (a). Some candidates gave lengthy explanations of their thought processes, which were not credit-worthy according to the mark scheme. In general, written explanations need not be offered unless explicitly asked for in the question.
- (b) A satisfying number of candidates appreciated that it was the balance of the visibility criterion and the cost which had to be investigated. Those who attempted to answer the question without using a table were much more likely to confuse the times and costs of the different fireworks.

### Question 2

Some candidates did not gain any marks on this question. This was clearly because a number of candidates were inexperienced in moving between the times in different time zones, so they were reduced to guessing which way the times were altered.

- (a) A mixture of simple time miscalculations and uncertainty about what to do with 'local time' left this question badly answered. Some of this appeared to be the result of naïve misuse of calculators.
- (b) Those who had trouble with (a) tended to struggle with this question (and all the rest of **Question 2**).
- (c) For some candidates who failed to master the time differences, this was the only opportunity to gain marks in **Question 2**, since a generous stipulation in the mark scheme credited correct calculations which ignored time differences here. Very few candidates correctly calculated a suboptimal journey time - almost all either correctly calculated it via Amsterdam and San Francisco or failed to calculate it correctly.
- (d) The involvement of the daily restrictions on the flights at this late stage of the question posed a difficulty for a number of candidates. Candidates produced a range of convincing answers to (ii). The mark scheme was fairly generous here and any viable explanation was credited.

### Question 3

As usual, it was the evaluative **part (b) (iii)** that candidates found most difficult. In general, there was a very pleasing level of creative argument offered by candidates.

- (a) Some candidates did not do well because they identified pieces of evidence and illustrations instead of reasons. It was felt that a candidate needed to have extracted two of the intermediate conclusions in order to have isolated the key structure of the argument. Furthermore, omitting the final section of the main conclusion ('we need an 'about-turn') limited many candidates' scores.
- (b) This question involved close scrutiny of the CAP codes and careful analysis of how they could be applied. The scope for guessed answers left less room for candidates distinguishing themselves in **parts (i) and (ii)**.

As usual, the evaluative **part (iii)** was clearly found tough by candidates. There were still a number of candidates who attempted to identify a strength in the argument, but who merely quoted the part of the source where it occurred. This does not gain any marks. Also, many picked up on the extrapolation from the questionnaire to the whole UK population as being a weakness. However, without some explanation of *why* it was weak, this gained no marks. For instance, a comment about why the sample might not be representative (since using those who actively respond to questionnaires does not tend to give a representative sample) would be needed.

- (c) The majority of candidates argued in favour of greater regulation of the advertising industry. Since this followed the direction of the two most clearly argued sources (documents 1 and 4) it is perhaps unsurprising that these tended to be less critical and innovative, on average.

A few candidates were sidetracked by the invitation to discuss the cause of irresponsible advertising, and failed to convincingly argue for one side or the other of the discussion. But most candidates benefited from writing an introductory paragraph on this key issue. It certainly led to more heartfelt evaluations of the arguments.

Some candidates managed to produce a 'top-band' answer (gaining 13 marks or more). These were characterised by a sustained critical attitude, in which reasoning was scrutinised and the credibility of sources was reviewed. Those who concluded that greater regulation was needed, and who answered this question well, tended to take the example offered in document 2 as a counter-argument, and then explain its flaws. As mentioned above, this required a more innovative spirit, and was less favoured by candidates. The more mediocre answers which pursued this line of argument tended to become bogged down in personal examples of the pernicious effects of advertising. Although good illustrations of the viewpoint, they did not allow for a sufficiently *critical* attitude to the arguments on offer. The weakest answers of this kind tended to orientate themselves around the implicit conclusions 'advertising is wrong/bad' and forget that the issue is legislation. This condemned most of these answers to the bottom-band.

Those who argued for the conclusion for no greater regulation of the advertising industry were more aligned against the reasoning of documents 1 and 4. Creative use of the other three documents, combined with insights that candidates introduced about human nature (that education was always a better solution than legislation) and the free market, produced some very cogent and well-expressed answers.

Overall in this question, candidates seemed to thrive on the variety of types of source (anecdotal, statistical, reasoned argument etc.), and the contemporary relevance of the subject matter. As always, when a topic excites candidates this led to more heartfelt appeals to the wide variety of experience that candidates had of the advertising industry (which were often uncritical and simplistic, as is the danger with raw anecdotal evidence); but it also produced a higher standard of mature and balanced critical arguments.