

GCE

Critical Thinking

Advanced GCE A2 H450

Advanced Subsidiary GCE AS H050

Report on the Units

January 2008

H050/H450/MS/R/08J

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Chief Examiner Report

Changes in the number of entries for each unit would seem to suggest that more and more centres are organising their teaching of the 4 units to tie in with the 4 exam sessions. Thus, Unit 1 and 3 entries increased noticeably whilst Unit 2 and 4 entries were essentially static or fell slightly. The largest change was in the significant increase in Unit 3 entries.

Candidate performance was not always consistent across the units. We saw some strong performance on Unit 1 where candidates seemed familiar with the format of the paper and were adept in producing targeted answers. In Unit 2, candidates demonstrated many skills but, once again, did not always appear to be familiar with some of the more technical aspects of the subject, such as the use of principles. Performance of the early questions in the Unit 3 paper was very strong. However, answers to question 4b remain an issue. I would stress that marks in this paper are given for the application of principles rather than giving details of theories. Many candidates are not developing their ideas in enough detail to produce a coherent argument that attempts to resolve their dilemma. Performance on Unit 4 seemed broadly in line with previous sessions.

Overall, the performance of candidates was broadly in line with previous sessions.

F491 Credibility of Evidence

General Comments

The candidature for the January examination has continued to rise, now approaching 15,000. Encouragingly, this cohort has evidenced the best differentiation in the history of F491, with a spread of 5 to 78 out of a possible 80 raw marks. A significant number of candidates gained marks in the 60s with the most able achieving in the high 70s. The numbers gaining less than 20 raw marks were greatly reduced, in line with the overall rise in the level of performance.

Candidates tended to give more full bodied answers that directly focused upon what was being asked. Those gaining the highest marks did not always have the most eloquent expression, indicating that it was the skills of critical thinking that were being tested rather than quality of language. In fact some of the highest marks were attained by shorter targeted answers.

Section A was the most strongly answered with increased numbers of candidates gaining over 20 marks. Weaker candidates continued to gain the greater part of their marks from the corroboration and conflict questions in Section C, although some fell short by identifying consistency and inconsistency rather than direct corroboration and conflict. The stronger candidates typically gained marks for Q5 suppositional reasoning and Q7e quality of evidence, whilst the weaker were unable to evidence these skills.

Time management was a strength in this session, with the vast majority completing the paper. Those that did not reach the final two questions, often evidenced answers that spread onto the extra page and beyond, suggesting that more focused answers might have been a better strategy.

Comments on Individual Questions

Section A

- This was well answered by the full range of candidates, who tended to focus upon secrecy, prompting answers relating to vested interest to lie and the limited possibility of eye witnesses and corroboration. Stronger candidates identified the sophisticated expertise required to understand advanced science, whilst others reflected upon the workings of the military. It was extremely rare to see answers devoid of any context, although a few continued to make the mistake of referring to the specifics of the Philadelphia experiment, rather then to secret military experiments in general.
- 2 Stronger responses homed in on the possibility of mistaken identity, whilst the weaker came up with a plethora of reasons why the Eldridge might legitimately have been in Norfolk. The weakest made tortured attempts to explain how a ship in Philadelphia could have been seen from Norfolk, not taking on board the distance indicated on the map. Others digressed into speculation about the weather.
 - Candidates evidenced a firmer grasp of the credibility criteria in this question. Strong candidates often gained the full 18 marks, writing full bodied quality answers that identified relevant references to support their assessment. The weakest assessed sources within the documents such as Einstein, rather than the documents themselves. There was less evidence of inappropriate criteria, although 'nature of claim', 'reliability' and 'corroboration' had an airing.
- It was encouraging that candidates evidenced a firmer grasp of the credibility criteria when answering this question. Strong candidates often gained the full 18 marks, writing full

bodied quality answers that identified relevant references to support their assessment. The weakest, however ably, assessed sources within the documents such as Einstein, rather than assessing the documents themselves and were thus unable to access some of the available marks.

Answers for Document 4 often gained more marks than those for Document 1 where weaker candidates tried to assess the unknown, 'we don't know who wrote the article' or gave three very similar answers based around the accuracy of Wikipedia's credibility. They identified 'expertise', reputation' and 'neutrality' without clearly distinguishing reputation for accurate information from their vested interest to provide it, or from Wikipedia's presentation of it, in an unbiased way.

Section B

- **4 (a)** Only the weakest of candidates did not identify the inference that the experiment had not taken place.
 - (b) Candidates identified a range of reasons relating to what might have happened to potential documents, some of these being unnecessarily inventive and long. winded.
- Although most candidates were able to identify a correct claim for Cunningham, the weakest chose claims that would be difficult to assess in terms of credibility. For example Cunningham's claim to have been chosen for the experiment because of his relevant training, could not be assessed via either his ability to see or his expertise as claimed by the weaker candidates. Some confused the visibility of the ship with limited ability to see eg 'Cunningham's claim is weakened by his ability to see because the ship was invisible.'

Only the strongest of candidates identified the crew's claim that nothing like what was in the letter had happened. Weaker candidates mistakenly identified what had been claimed in the letters sent to Jessup or what unmuseum.com had concluded about the Philadelphia experiment. Others confused the Eldridge's crew with that of the merchant ship.

Some candidates were unable to access the mark for assessing credibility, by naming the criterion and following it immediately with a supposition eg *'Cunningham's claim is weakened by his ability to see, if he was on board the ship.'* This appeared to be a centre-related weakness.

More candidates than in previous sessions attempted to identify what must be supposed. The majority focused upon the strength of the sources being eye witnesses to the experiment, unless Cunningham's perception was impaired by the resulting disorientation from the experiment; or in the case of the crew, unless another crew had been used.

Pleasingly almost all candidates used the same credibility criterion to compare the credibility of the two sources. However significant numbers assessed only one of the sources against this criterion, omitting an assessment of why the other source was weaker eg 'The credibility of Cunningham is stronger because he was an expert in the field of what this experiment required.' Others claimed that the crew was not there, perhaps as a result of the confusion between the two crews.

Section C

In relation to corroboration and conflict some candidates limited their possible marks by only addressing one point of corroboration and conflict instead of two. However where the points were raised, they were on the whole accurately identified.

- 7 (a) Many candidates gained full marks in this question, but weaker candidates came adrift in the precision of the statement of the point of corroboration. For example Einstein being employed by the navy in explosives at that time does not directly corroborate the claim that he was involved in this experiment.
 - (b) As in previous sessions some candidates were unable to access two of the six marks, because they gave two conflicting references without the statement of the point of conflict that they were intended to support. Others were distracted by inconsistency rather than direct conflict.
 - (c) Most candidates identified the sides of the dispute accurately and stronger candidates had no problem in identifying the individual sources. The weakest candidates listed the documents without identifying the sources within them. Problematic sources were accurately identified but only the strongest accessed the mark by going on to explain why this was so.
 - (d) Only the strongest candidates gained two marks as many accurately identified which side had the most weight, but omitted to give a numerical justification, or more often gave it inaccurately.
 - (e) This question was answered in a more focussed manner than in previous sessions, with the majority relating their assessments to the sides of the dispute giving specific assessments. Weaker responses did not identify sides, whilst the weakest assessed documents, or did not refer to credibility criteria, or simply reeled these off in a list merely stating that a source possessed it or exhibited it without justifying why.
 - (f) This question was well answered with the majority of candidates referring to the experiment in a judgement that reflected their prior assessment. A minority of weaker responses judged whether or not the ship disappeared.

This session evidenced a more accurate use of technical language from a greater proportion of the candidates. Accurate spelling was also more widely evidenced, although 'navel experiment' appeared in more than few scripts. Poor writing and weak grammar was a limiting factor in many weaker scripts, where marks could not be accessed due to problems in ascertaining the intended meaning.

It was very pleasing to observe a marked improvement in the level of performance. Candidates' answers evidenced a greater use of the credibility criteria than in previous sessions and assessments were more carefully considered. Having one less question on the paper had the desired effect of enabling more candidates to complete all questions and the stronger candidates had more time to present precise but developed answers.

F492 Assessing and Developing Argument

General Comments

The entry this January was slightly less than last year and perhaps reflects centres deciding to take F491 first. Overall levels of performance were similar to previous sessions, although there are bound to be differences in an entry of only 4,000 compared to 25,000 in summer sessions. Candidates continue to show good skills in the multiple choice section and many are able to analyse the passages with great accuracy. As with other sessions, candidates found the flaw questions challenging and have great trouble forming principles. These are certainly amongst the more difficult questions in the paper and centres may wish to focus on these areas.

Comments on Individual Questions

1 – 20 Multiple choice

Candidate performance on the multiple choice questions was again very strong and very much in keeping with recent sessions. Performance was distributed over the mark range with 57 candidate, scoring 18 or above. Closer analysis reveals that most questions differentiated well between candidates. Questions 3,9 and 11 were found to be the easiest by candidates whilst question 7 was found to be the most difficult. The difficulty of question 7 would seem to be linked to the structure of the argument presented – the main conclusion is the first sentence and the intermediate conclusion the last sentence. Overall, candidates continue to demonstrate very high, praiseworthy, levels of skill in this section of the paper.

21

The vast majority of candidates were correctly able to identify the main conclusion. Some candidates moved 'more' in their answer ("...to encourage women to have more children") and were only awarded 1 mark.

22

Many candidates found this question straightforward and scored well. We continue to see candidates that have not attended to the instruction to 'use the author's exact wording where possible'. As a result, many marks are lost on this question because candidates have paraphrased the original wording/changed or missed key words/added additional information, such as numerical evidence.

23

Although most candidates recognised that there was a counter-argument in the first paragraph, there was widespread confusion about which section of text was the reason and which section of text was the conclusion. Far too many candidates put both reason and conclusion in the space for the reason and a similarly large proportion gave the numerical evidence about the birth rate for the reason.

24a and 24b

Both questions were answered well by the overwhelming majority of candidates. Common answers to part (a) were that women now needed to work to meet the increasing cost of living. In part (b) a lot of candidates understood the idea of equal pay or status, whilst others commented that women must now be taking over jobs that had previously been stereotypically male.

24c

We were able to award marks on this question as many candidates were able to comment that 10% over 30 years was not very much. Far fewer candidates picked up on the nuances of the fact that if the figure was 60% just after the baby boom (when it might be thought that many women would have been at home) a figure of 70% doesn't represent much change. A still smaller number of candidates commented on the fact that 10% over 30 years must be a consolidated change and not a 'blip' in one year's statistics.

25a and 25b

Despite the fact that there are 3 potential flaws in the paragraph many candidates were unable to offer a name or description that fitted. Amongst those candidates who did know the flaws, restricting the options was the most common choice. Many, incorrectly, chose 'generalisation' seemingly on the basis of the author's reference to 'everyone'. This isn't a generalisation in critical thinking terms but is part of the appeal to popularity. In part (b), many candidates tried to comment on all 3 flaws whilst others continue to offer a counter-argument or merely disagree with the author (eg the author is wrong to say that there aren't enough resources to go round). As with past sessions, these types of answers do not attract credit. The better candidates wrote short and accurate answers to this question, demonstrating their knowledge of flaws and the skill of explaining the problem in the context of the passage.

26

The vast majority of candidates could clearly see a problem here but were not always able to articulate their thoughts. Many made no reference to the evidence at all in their answer, making comments like 'the teenagers not in education might have good jobs'. Although this was given 1 mark it lacked the detail of the better answers that, for instance, showed how the low percentage might be expected as many teenagers would not be in education since the leaving age is 16 and teenagers would include everyone up to and including 19 years of age.

27

A good number of candidates were able to break down the figure over the 21 years and compare it to average salaries to make the figure seem more affordable. Others recognised that the 'average' might not be the amount spent by many parents as this figure could be skewed by a few parents spending a lot more (the cost of private education was frequently mentioned as an example). Incorrect answers often focussed on the 'eye-watering' comment that was often seen as a strength or the fact that not all children stay at home until they are 21.

28

The vast majority of candidates spotted the impact of rising house prices or the desire of parents to be looked after by their children.

29a and 29b

Although most candidates could see a slippery slope at work, far fewer were able to express the problem with such reasoning. Many disagreed with the author saying that children living at home might not be dependent on their parents. We were able to give credit for answers that showed the exaggerated/unsupported leap in the reasoning, although very few candidates scored 3 for showing how there are *several* unsupported steps. A slippery slope by definition needs to have several steps in it.

30

It was pleasing to see so many candidates spot either of the two examples of hypothetical reasoning.

31

Very few candidates spotted the inconsistency in the paragraph and many continued it in their own arguments in question 39. Clearly a very demanding question.

32

Once again, answers revealed that most candidates do not know what a principle is. 'Teenagers who have babies will ruin their future' was a common, but incorrect, type of answer. Other candidates wrote quite long commentaries on the dangers of teenage pregnancy. Common correct answers focussed on the fact that teenage pregnancies are wrong/bad/immoral.

33

Most candidates scored at least 2 marks on this question. Some credit was lost by giving answers that lost some of the meaning of the original text, such as 'the author believes there are advantages in being an only child' that lack the reference to the research or what these advantages might by. However, it is clear that most candidates had analysed and understood the arguments at work in this second document. Consequently we were able to award 4 marks to a great many candidates.

34a

It was good to see so many candidates understanding that a challenge to Adler's theory is not the same as it being proven wrong or that one theory being proved wrong does not mean that they all will be wrong. 'Just because...' was a helpful phrase used by many candidates. A large percentage of candidates seemed to think that this was a flaw question and tried to explain the issue in terms of an ad hominem or post hoc flaw. Neither answer received any credit.

34b

A lot of candidates were able to see the problem of the time period (often illustrated by the peculiar idea of the Victorians) and the fact that society is very different now. One or two very interesting answers focussed on the inaccurate nature of research in the early 1900s (compared to the more thorough research of today) which casts doubt on the validity of the findings

35

Many candidates did not see the comparison at work in this question and gave answers that did not clearly refer to parents with one child and parents with several children. Others merely repeated the question in their answer, stating that you had to assume that parents with one child gave it more attention. The most common correct answer made reference the issue of division of time – both sets of parents have the same time, but parents with several children have to divide it out. Only a very few candidates got at the idea that parents with a single child mustn't work longer hours/have more demanding jobs etc compared to parents with several children.

36a

Both answers seemed to be given in roughly equal measure.

36b

Most candidates repeated the question in their answer: 'You have to assume that more attention from parents increases academic performance'. Some commented that 'attention from parents had to be the only factor in improved academic performance'. Neither of these answers received credit. It is clear that candidates were not going back to the resource material for the proper context of this question and therefore did not pick up on the fact that the greater attention was being given to only children. The very few candidates who did see this wrote extremely accurate answers, making an explicit comparison between only children and children with siblings.

37

A great many clear, concise and thoughtful answers were given. Common reasons focussed on the contrary nature of teenagers and the fact that the pro-baby messages would be aimed at a different, older age group. Some candidates gave reasons that offered only very limited support to the conclusion (e.g. many teenagers may want a career and put off having a baby until they are older) and these were awarded 1 mark. Given the explicit wording of the conclusion in the question, it is worrying that so many candidates ended their argument with a completely different conclusion. 'The pro-baby message is not responsible for the rise in teenage pregnancy' is a common example.

38

Answers in the bottom band (0-3) tended to consist of a long list of things that our parents have done for us with the conclusion at the end. Such answers lacked any development or structure. This is an area on which centres may wish to focus their attention. Slightly better middle band answers (4-6) included a sense of duty or fairness in repaying all that effort or the sense that we would be setting an example to our own children. Intermediate conclusions were not always clear and many of them were in fact the conclusion used twice. Candidates must recognise that an intermediate conclusion is something that moves the argument forwards and does more than merely summarise the reasoning that came before. We saw comparatively few top band (7-10) answers, but those that we did see were impressive. Candidates were able to include: the poor quality of care in the NHS/care homes compared to that from a loving child; the sense of worth that children would feel in looking after their parents; the benefit to our relationship with our parents; a closer relationship for our children with their grand-parents; freeing up state resources to reduce taxes or improve the NHS; and many other interesting reasons. These arguments were well-constructed and featured clear intermediate conclusions and other argument elements such as hypothetical reasoning and principles. The increasing use of these additional elements is a welcome improvement in candidates' answers

39

The nature of the conclusion seemed to cause candidates many problems. Over the course of this specification it is clear that candidates are most at ease with black and white conclusions. In this more subtle case, very few spotted that the opposite of 'it would be wrong to encourage more women to have children' is 'it is not wrong to encourage more women to have children' or 'it is right to encourage more women to have children.' Most candidates ended up concluding that 'we should encourage more women to have children.' Although the arguments often contained interesting ideas (commonly picking up on issues raised by the counter-argument) there was too little sign of structure and development. Candidates also seemed to be drawn to extreme statements or slippery slopes. It was often suggested that more babies would lead to the collapse of the NHS or vast numbers of un-educated young people as schools would be unable to cope with the extra children. Accordingly, most of the answers were awarded middle band marks. As with question 38, the few top band answers were notable for their excellence and their use of more reasoned thinking. Examples of this would be the way that candidates were able to consider the impact on already stretched family finances or alleviating the tax burden on those in work.

F493 Resolution of dilemmas

General Comments

The overall aim of the examiners was to recognise and reward the specific skills of Critical Thinking. A few candidates produced excellent answers, in which those skills were used perceptively and with sophistication, but many did not.

The main factors which prevented candidates from achieving higher marks were:

- That they did not do precisely what the question asked them to do, which is what the mark scheme rewarded;
- That they spent too long on some questions for the small allocation of marks available, they then ran out of time on the final question, which carried half the marks for the whole paper;
- they did not use the evaluative skills they had learned in the AS course.

Comments on Specific Questions

- 1 (a) This was generally done well. Most candidates could identify and explain two problems of definition, although some managed only one (some of them apparently thinking that the problem of some people believing one thing while others believe another is two problems, not one).
 - (b) This was harder, mainly because of the requirement to link practical difficulties with the problems of definition identified in Q1a, but examiners were quite generous in their interpretation of that requirement and many candidates achieved high marks.
- Was done well by almost all candidates, and many of them achieved full marks. Even candidates whose other answers were relatively weak produced good answers to this question. There were two ways of approaching this question: begin from the documents and think how the data might influence opinions, or identify factors influencing opinions and try more or less successfully to support them from the documents. Both approaches were credited. Some candidates wrote a lot more in response to this question than was justified to achieve a maximum of 6 marks.
- The intention of this question was that candidates should apply the same 2 criteria to the same 2 choices, but many applied different criteria to the two choices, which may be one reason why some unwisely devoted more attention to this question than to 4b.

Many candidates realised that the choice of making ID cards compulsory for certain sections of society only, was a strange and obscure one, which makes it surprising that so many of them chose to discuss it. Most candidates who chose to evaluate the choice of introducing a voluntary ID scheme imagined that the people who would choose to obtain one would be those who had expressed views in favour of a compulsory scheme in an opinion poll, but the best candidates realised that the crucial issue was how practically useful such cards would be and that one way of introducing a universal scheme would be to make life increasingly difficult for people who chose not to have one. Candidates who recognised ambiguity in the evaluation of some choices (such as a compulsory scheme) by some criteria (such as cost) received higher marks than those who saw only one side of the issue.

Although nearly all candidates made good use of the resource documents, and some of them did so imaginatively and skilfully, it was very disappointing that most approached the documents uncritically, despite the instruction that they should "where appropriate,

critically assess the material in the Resource Booklet." For example, most candidates made appropriate references to the hypothetical benefits of a National Identification Scheme as identified in Document 3, but not many of them pointed out that the source had a vested interest to select and present the evidence in a biased way, in favour of ID cards, and that the claims should therefore be taken with some reserve. Similarly, very few candidates recognised that because Muriel Gray's article (Doc 2) was written from an extreme point of view and contained some important factual inaccuracies, it did not need to be taken too seriously. Because evaluation of documents is a distinctive Critical Thinking skill, candidates who fail to use that skill in questions of this type significantly restrict the range of marks available to them.

- As on previous occasions, many candidates lost marks by failing to express the subject of their discussion in terms of a dilemma. Some candidates appeared to have been taught a format for expressing dilemmas, such as "Should we......even though....., or should we......, even though......". Despite the tendency for their answers to be a little formulaic, they achieved 4 marks out of 4. So other centres may like to consider training students to do something similar. Although markers are careful to avoid penalising candidates twice for the same weakness in their answers, it is unlikely that those who fail to identify a clear dilemma in Q4a will achieve a high mark for discussing and attempting to resolve such a dilemma in Q4b.
 - (b) This question required candidates to try to resolve the dilemma they identified in Q4a, with reference to principles and to the resource documents. Some weaker candidates wrote a general essay on the topic of Identity Cards without specific reference to a dilemma, principles or the resource documents. Many candidates did not attempt to resolve the dilemma they had (or should have) identified. By failing to show evidence of distinctive Critical Thinking skills, many candidates failed to exceed Level 2 in this question.

Many candidates gave brief, usually unconvincing, applications of a long list of principles. Developed discussions of two, or at most three principles generally achieved higher marks than brief applications of several principles, and this is likely to be the case in future examinations.

Some candidates tried to contrast ethical theories or principles which could not really be contrasted – eg Consequentialism, Utilitarianism, Prudentialism and Hedonism. In almost every case, their attempts to define the differences produced bizarre results. Candidates need to realise that theories which answer different questions or attempt different tasks can be used together, but not really contrasted. In the context of a dilemma, it is advisable to choose two theories which compete with one another and which are relevant to the subject. In this case, Utilitarianism versus Human Rights or Libertarianism versus Paternalism would have been good choices.

Most candidates took Utilitarianism as one of their principles, and most of them cited the slogan "The greatest good of the greatest number". Many candidates either stated or took it for granted that evidence from public opinion polls (as given in Documents) was the only way of measuring the happiness likely to result from alternative policies, which suggests that they did not have a good understanding of the theory. A few of the better candidates pointed out that the difficulty of estimating consequences is the biggest objection to Utilitarianism.

Relatively few candidates approached the subject from a Deontological perspective. Of those who did, several thought that "Kantian" and "Deontological" were simple synonyms. It is not easy to know what Kant would have thought of Identity Cards, and most of the speculations on that subject were unconvincing. A few candidates realised that the most fruitful Deontological approach to this subject came from the

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perspective of Human Rights, and a very few even traced particular rights back to the United Nations Declaration of 1948.

It was good to see that some candidates referred to the Social Contract. A few very good candidates succeeded in defending the introduction of ID cards in terms of Locke's version of the Social Contract. Potentially, Rawls's concept of the Veil of Ignorance might have provided a valid insight on this issue, but all or most of the candidates who referred to it gave no indication that they knew what it was.

F494 Critical Reasoning

Section A

Multiple Choice

General Comments

In general, candidates found the multiple choice questions a little harder than in previous sessions. As in previous sessions, candidates performed less well on questions which focussed on AO1, analysis of reasoning. They confused main and intermediate conclusions, struggled to decide what could be concluded from evidence or reasoning and were not even strong on the questions which required them to identify an argument. Questions which tested AO2, evaluation of reasoning, were done a little better. There seems to be considerable room for teachers to focus on analysis of argument and the logical links between reasons, intermediate conclusions and main conclusion.

Ω 1

This question, 'which of the following is an argument?' was thought to be an easy opening question. However, fewer than half the candidates got it right, indicating perhaps that some revision of the absolute basics of critical thinking might be necessary. The question discriminated well between most and least able.

Q2

This question asked candidates to identify the main conclusion. Again, fewer than half were able to do so. Most of those who chose the wrong answer picked an intermediate conclusion.

Q3

This question asked candidates to identify the function of a particular element. It discriminated well. Those who did not recognise that this was a response to an anticipated counter argument mostly thought it was a counter argument.

Q4

This question was found fairly easy, even by the least able candidates.

Q5 and Q6

These two questions were found to be particularly difficult. They discriminated between the best of the most able candidates. In Q5, candidates seem not to have realised that no conclusion could be drawn about Canadian trade on the basis only of information about the number of trucks crossing the border with the US. In order to draw any such conclusion we would need information about air freight and shipping trade. In Q6, candidates generally thought that, 'Old Canadian trucks were replaced with new trucks' could neither strengthen nor weaken the claim that, 'The increase in truck freight across the Canadian border led to an increase in carbon emissions.' However, this might weaken the claim if modern trucks produced fewer emissions and led to an overall decrease in the total emissions from trade even though there were more of them. The correct answer related to domestic truck travel, which could have no impact on emissions from international travel.

Q7 and Q8

These questions were found exceptionally hard, and discriminated between the best of the most able candidates.

Q9

This question on a weakness in an argument discriminated well any was found fairly hard. The majority of candidates chose C. This distractor suggested that there was a generalisation from a single example. Had this been the case it would have been a flaw. However, this was not the problem with the passage.

Q10

Most candidates were able to identify the valid argument, and the question discriminated well. The most commonly chosen distractor was a common sense argument rather than one in which the conclusion must be true if the reasons were true.

Q11

This question also required candidates to identify an argument. More than half the candidates chose the right answer and the question discriminated well.

Q12

This question required candidates to identify the function of an element. It discriminated well, with around 80% of the most able correctly identifying that the element was the main conclusion, but less than 20% of the least able. Many candidates chose intermediate conclusion, indicating that teachers would do well to work on the structure of arguments in which the main conclusion is not in the last line.

Q13

This was an assumption question. It discriminated well and was well done considering that assumptions are often found extremely hard.

Q14

This question was found the hardest on the paper, although candidates are normally able to answer questions about countering an argument well. It discriminated only at the very top end of the ability range. Most candidates thought that, 'It is better to eat healthily and look after your skin than to rely on cosmetic treatments for your looks' would counter the argument. This is probably true, and demonstrates that candidates were refreshingly balanced about this issue. However, the argument suggested that, because Botox treatments do prevent wrinkles, the people who use them are not wasting money. These people may also eat healthily and look after their skin, and this would be consistent with them not wasting money on cosmetic treatment.

Q15

This question was accessible and discriminated well. 64% of candidates chose the correct answer.

Q16

52% of candidates chose the right answer to this question. It discriminated fairly well between middle and lower ability candidates and strikingly between the top 25% and the rest.

Q17

This question was found quite difficult: 38% of candidates chose the correct answer. Most were distracted by, 'None of the boys is ever busy with clubs on Tuesdays.' However, it is possible that Peter and Zafar might do circuit training on Tuesdays. Circuit training is a requirement of being in a sports club, so they would be busy with their club if they were doing circuit training.

Q18, 19 and 20

These questions worked well: about 50% of candidates picked the right answer in each case and they all discriminated well, with Q18 in particular showing strong discrimination between most and least able. This was again a main conclusion question in which candidates were distracted by an intermediate conclusion in the last line of the passage.

Section B

General Comments

Most candidates produced thoughtful, reasoned responses, demonstrating clear and solid critical thinking skills. A minority of candidates did, however, expound on their own prejudices about feminism, feminists and the roles of men and women rather than answering the questions set.

Almost all candidates performed the right task in every question, which represents an improvement on previous sessions, and allowed real discrimination between candidates with strong thinking skills and those with weaker skills. There were a significant proportion of excellent answers to this paper, with many candidates demonstrating an extremely high level of critical thinking. There was also, however, a tail of weak performance.

Q21

Most candidates were able to identify at least some of the elements, and almost all were able to identify that d) was the main conclusion, which was pleasing. One area for improvement would be the explanation of the function of each element in the structure of the argument. Candidates are tending either to give a definition of an element, which does not explain its function in the structure of this argument, or to clarify the meaning of the element, which does not relate to the structure of the argument.

For example:

21b) 'It [feminism] is about much more than tinkering at the edges – and that feels threatening to a lot of people.'

Name: Intermediate conclusion.

Explanation:

A: 'this is supported by reasons and supports the main conclusion.'

This response defines intermediate conclusion. It does not show that the candidate has any understanding of the structure of this argument. In Rake's argument, this intermediate conclusion does not directly support the main conclusion. There are steps between this IC and the main conclusion. So this answer does not gain the second mark for explanation.

B: 'Rake is demonstrating how scary feminism can seem when it tries to change the relationships between men and women.'

This paraphrases the meaning of the passage rather than talking about the structure. So this answer does not gain the second mark for explanation of the function of the element in the structure of the argument.

C: 'It is supported by the reasoning and examples in paragraph 4.'

This answer clearly shows that the candidate has understood the structure of this part of the argument. It gains the second mark for explanation.

D: 'It supports the claim that feminism is calling for something many men and women find difficult'

This answer clearly shows that the candidate has understood the structure of this part of the argument. They have picked out the precise intermediate conclusion which is supported by this intermediate conclusion. It gains the second mark for explanation.

Q22

This question discriminated well. Most candidates performed the right task of breaking the argument in the paragraph down into example, reasons, intermediate conclusions and main conclusion of the paragraph.

Many candidates decided that the last line of the paragraph was the main conclusion, although in fact it was an intermediate conclusion which supported the main conclusion in the first line. Teachers may find it useful to work with students on arguments in which the main conclusion comes in the first line, with an intermediate conclusion in the last line. This is a common argument structure, which also occurs in multiple choice questions at AS and A2.

A significant minority of candidates accurately labelled elements as reason or intermediate conclusion, but gave no indication of whether they understood which intermediate conclusion was the main conclusion of the paragraph. This meant that they could not access higher marks.

The best candidates realised that there were two separate strands of reasoning, and showed how the elements in the argument related to one another, using either words or a diagram.

Ω 23

Overall, candidates performed fairly well on this question. Most candidates are now attempting the right task, and talking about weakness and strength in the reasoning. A pleasing number of candidates were able to identify significant weaknesses in Rake's reasoning, such as the straw person flaw. However, fewer candidates evaluated the impact of these flaws on the strength of the reasoning.

The strongest candidates focussed precisely on Rake's response to feminist bashers. These candidates were able to argue, for example, that; 'Rake's portrayal of feminist bashers as arguing from emotion and prejudice may misrepresent their position because it is entirely possible that these people have rational cases for opposing feminism. It is therefore a significant weakness in Rake's response that she does not consider and respond to any such rational arguments.'

Weaker candidates tended to refer to 'the argument' or 'the claim' in a vague, general way. They tend to name flaws but not really relate them to this argument. for example; 'Rake makes use of the straw person flaw in her argument. This weakens her argument.' 'Rake appeals to history in the first paragraph. This weakens the support for the claim.'

The weakest candidates disagreed with Rake and paraphrased her reasoning, or ranted around the issue of feminism, feminists, and male-female gender stereotypes.

Q24

Where there was evidence that candidates had not managed their time well, or had not been able to complete all the tasks in the time, this was the question that was most often not attempted. This was a shame, as those candidates who did attempt it were generally able to name several of the obvious flaws. The best candidates showed understanding of Rake's reasoning and referred to the original text to show that the blogger had misunderstood and failed to counter Rake's reasoning. Strong candidates made evaluative comments such as: 'The blogger may be right to say that some women admire female pop stars who sell sex and men who are macho stereotypes. However, this does not mean that this is not harmful in the ways that Rake suggests, as it may be precisely this admiration that leads to self-harm and eating disorders. So this does not really counter Rake's argument.'

Weaker candidates tended to list the flaws and say that the blogger's argument was not strong. The weakest wrote rants of their own expressing their opinions about feminism, women, life, the universe and everything.

Q25

This question tests AO3, Development of Reasoning. This is an area in which able candidates, in particular, could improve. It is not uncommon to mark scripts in which the candidate shows a very high level of understanding of strength and weakness in the reasoning in the stimulus passage in their answers to Q23 and Q24, but then writes a ramble or discourse on a theme in

this last question. These may be perceptive but they often lack structure and do not have strong links of support between reasons and intermediation conclusion. This means that they do not access the highest marks and occasionally cannot even access middling marks.

Most candidates were able to produce an answer to this question. Most of them wrote the claim given as a main conclusion and produced some reasoning or opinions related to the topic. Very few were utterly dreadful. However, very few candidates actually wrote an argument with examples which supported reasons which supported intermediate conclusions which supported the main conclusion. The most important task for candidates in this question is to write an argument in which these links of support are strong – they need an understanding of the logical links of inference.

Answers such as the following were not uncommon:

'Recent research has shown that men's and women's brains work differently. Women are better at multi-tasking than men. Women will therefore always be better at housework than men so they should stay at home.'

This candidate has produced some real and interesting evidence. However, the claims which follow are far too strong to be supported by this evidence, quite aside from making the Principal Examiner's head boil. Just because women are generally better than men at multi-tasking does not mean that they will be better at housework – there is nothing to suggest that housework necessarily involves multi-tasking. It is not impossible to clean the sink and then clean the floor in a linear progression. Nor does it follow from women being better at housework than men that they should stay at home. Nor is this precisely relevant to equality – there are several further links which need to be drawn.

Other common weaknesses in reasoning include generalisation and appeals to history:

'Men are stronger than women so a woman can't do a job on a building site.'
'There has never been equality in the past so it will always remain unattainable.'

Better candidates discussed the meaning of equality, considering absolute equality of treatment and equality of opportunity. The best candidates tended to use this discussion to inform their argument, suggesting that equality of opportunity might be attainable, but absolute equality is not. Better candidates also tended to draw examples from areas other than female-male inequalities including racism and economic inequality.

There is some evidence that candidates are being given tick lists of elements to include in their argument and working on the basis that including these elements will suffice to gain a good mark. It is true that good candidates tend to define their terms, anticipate and respond to counter argument and use strands of reasoning. However, where these are 'empty', ticking the boxes is not sufficient. An anticipated counter argument must be apposite, and a response to this counter argument should actually respond to it and give us a reason not to accept the counter argument. Strands of reasoning must be driven by logical support rather than simply listing different opinions relating to economic inequality or racism in the same paragraph.

Quality of Written Communication

Most candidates were able to write in clear, coherent English and communicate their thoughts and reasoning with reasonable clarity. Most were able to use technical terms such as names of argument elements, names of flaws, assumptions etc with some accuracy. This represents an ongoing improvement.

Grade Thresholds

Advanced GCE Critical Thinking (H050/H450) January 2008 Examination Series

Unit Threshold Marks

Unit		Maximum Mark	а	b	С	d	е	u
F491	Raw	80	59	50	41	33	25	0
	UMS	120	96	84	72	60	48	0
F492	Raw	120	77	68	59	51	43	0
	UMS	180	144	126	108	90	72	0
F493	Raw	80	59	52	45	39	33	0
	UMS	120	96	84	72	60	48	0
F494	Raw	120	75	66	58	50	42	0
	UMS	180	144	126	108	90	72	0

Specification Aggregation Results

Overall threshold marks in UMS (ie after conversion of raw marks to uniform marks)

-	Maximum Mark	Α	В	С	D	E	U
H050	300	240	210	180	150	120	0
H450	600	480	420	360	300	240	0

The cumulative percentage of candidates awarded each grade was as follows:

	Α	В	С	D	E	U	Total Number of Candidates
H050	9.0	26.3	47.5	68.2	83.8	100	1515
H450	11.1	29.6	63.0	81.5	92.6	100	29

1544 candidates aggregated this series

For a description of how UMS marks are calculated see: http://www.ocr.org.uk/learners/ums results.html

Statistics are correct at the time of publication

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