MARK SCHEME for the October/November 2012 series

9694 THINKING SKILLS

9694/21

Paper 2 (Critical Thinking), maximum raw mark 45

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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1 (a) During the inquiry, it was revealed that Dr Gully had provided Florence with a bottle of medicine, in order to help her to sleep. The bottle was labelled "Poison". How significant is this additional information in deciding how Charles Bravo died? [3]

Of some significance, but not much [1]. This could have been a means for Dr Gully to supply Florence with the poison which killed Charles Bravo [1], but there is no evidence that the medicine was tartar emetic rather than a harmless sedative [1]. The medicine may have been tartar emetic, since according to Source D one of its uses was as a soporific [1]. There is no evidence that Dr Gully wanted Charles Bravo dead [1], although his love for Florence may have made him want to free her from the suffering of her marriage [1].

Maximum 2 if only one side considered.

(b) How useful is the TV programme (Source E) in deciding how Charles Bravo died? [3]

Of some use, but not much / of no use [1]. Julian Fellowes is not a professional historian, and therefore has little expertise [1], and his investigations took place long after the event (poor ability to see) [1]. Furthermore, the purpose of the programme was probably to entertain rather than to provide reliable historical information [1]. The suggestion about the duplicate bottle is very speculative [1]. However, Julian Fellowes did examine the original evidence from the case [1] and come up with a plausible explanation of events [1].

Maximum 2 if only one side considered.

(c) Recent research has revealed that Mrs Cox inherited a large estate from a relative shortly after these events.

How significant is this additional information in deciding whether Mrs Cox murdered Charles Bravo? [3]

It is of some significance, but not much [1]. If Mrs Cox knew that she was going to receive this inheritance [1], it meant that being dismissed from her employment would not be ruinous for her, thereby removing a possible motive for her to have murdered Charles Bravo [1]. But her love for Florence would have been an alternative motive [1].

Maximum 2 if only one side considered.

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(d) How do you think Charles Bravo died? Write a short, reasoned argument to support your conclusion, with critical reference to the evidence provided and with consideration of any plausible alternative scenarios. [6]

Level 3 5–6 marks	A strong answer, which provides a reasoned argument including thorough evaluation of the evidence to support an acceptable conclusion in terms of probability and evaluates the plausibility of at least one possible alternative scenario.	
Level 2 3–4 marks	A reasonable answer, which evaluates the evidence, draws an acceptable conclusion in terms of probability and may mention at least one possible alternative scenario.	
Level 1 1–2 marks	A weak answer, which refers to the evidence, possibly including a simple evaluative comment. The conclusion may be unstated or over-stated.	
Level 0 0 marks	No credit-worthy material.	

Indicative content

As the title of Source B indicates, the three possible explanations for Charles Bravo's death are murder, suicide or accident. Candidates may legitimately argue in favour of any of these three explanations. Perhaps the most likely is that Florence poisoned Charles's water bottle and Mrs Cox helped her to cover up the crime. Either of them could have been in the habit of putting small doses of tartar emetic into his water in order to protect Florence from his sexual demands (Source D), and on this occasion they may have increased the dose either accidentally or deliberately. Charles might have had a supply of the poison in his room even if Julian Fellowes's speculative explanation is wrong, since he may have been dosing Florence's wine with tartar emetic in order to discourage her from drinking (Sources A and D). His insistence, throughout the lengthy and agonising process of dying, that he had taken an accidental overdose of pain relief, suggests that he did not think he had been murdered.

2 (a) In several areas of Scotland where midges are especially troublesome, there are no trees. To what extent does this contradict the claim in Source B that taller men are more likely to be bitten than shorter men?

It does not contradict the claim [1], which is based on the actual incidence of bites and does not rely on any particular explanation [1]. It may throw doubt on the researchers' explanation for this preference [1], but probably not, since the fact that midges prefer to rest in trees does not mean that they cannot rest elsewhere when no trees are available [1] and the preferred flying height is not necessarily linked to roosting in trees [1].

(b) Source C is taken from a report in a popular newspaper of the research described in Source B. How useful is this report? [3]

Of some use, but not very useful [1], because it gives fewer details [1]. Source C oversimplifies the findings by conflating the data for male and female [1]; in particular, the research does not support the claim that midges would be likely to bite Robbie Coltrane [1]. The explanation given in Source C for the attraction to overweight people is not the same as in the fuller report [1]. The figure 2.8 metres may be more reliable than the approximation "around two metres", since the approximation in Source B fits the hypothesis better and may

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therefore have been chosen for that reason **[1]**. A report in a popular newspaper brings the research to the attention of the general public **[1]**.

(c) "Women's reactions may be worse as they are more aware of their skin" (Source C). How effective is this as an explanation for women reacting more to midge bites? [3]

If "reaction" means being more aware and bothered by the bite [1] then it is quite a good explanation [1]. However, if it means the actual physical reaction, in terms of swelling, redness, etc. [1] then it is difficult to see the connection between greater awareness of skin and these physical reactions [1] unless one comes up with some complicated psychosomatic theory [1] or unless women tend to scratch bites and thereby make them worse [1]. There is also some problem in deciding what "being more aware of their skin" actually means [1].

(d) 'This research project will help people to avoid painful midge bites.'

To what extent do you agree with this claim? Write a short, reasoned argument to support your conclusion, using and evaluating the information provided in Sources A - C. [6]

Level 3 5–6 marks	A strong, reasoned argument, which uses and evaluates all or most of the evidence provided.	
Level 2 3–4 marks	A reasonable, simple argument, which uses and/or evaluates evidence.	
Level 1 1–2 marks	A weak answer, which makes some reference to evidence but consists of opinion and/or assertion rather than argument or an argument which makes no reference to evidence.	
Level 0 0 marks	No credit-worthy material.	

Indicative content

The research may have some marginal value in this respect, if people who are particularly likely to be bitten by midges become more aware of the problem and avoid going to areas where midges are active. But tall men cannot lose height and large women are unlikely to lose weight just in order to avoid midge bites. The most useful part of the research is likely to be the hereditary element, since in principle analysis of the DNA or scent of people who are not susceptible to midge bites could be used as the basis for the development of more effective repellents. According to Source B, this was the main purpose of the research, but the reports have tended to focus on minor aspects which might be of greater appeal to the general reader.

3 (a) Using the exact words from the passage as far as possible, identify the main conclusion. [2]

2 marks: Broadcasters and the public should be much more sceptical about opinions and evidence put forward by so-called experts.

1 mark: Broadcasters should be much more sceptical about opinions and evidence put forward by so-called experts.

1 mark: The public should be much more sceptical about opinions and evidence put forward by so-called experts.

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0 marks: Broadcasters and the public should be much more sceptical (about opinions and evidence).

- (b) Using the exact words from the passage as far as possible, identify three reasons used to support the main conclusion. [3]
 - The term 'expert' is very vague and problematic.
 - Someone who is introduced as an expert on a particular issue may actually not know much about it.
 - Anyone who believes in that information [information selected and presented in such a way as to benefit an employer] because it comes from an expert source is asking to be exploited.
 - A healthy dose of scepticism towards such claims is to be heartily recommended.
 - The experts whose opinions are presented on radio and television are usually people who simply like hearing the sound of their own voice.

(c) Evaluate the reasoning in the argument. In your answer you should consider any strengths, weaknesses, flaws and unstated assumptions. [5]

Level 3 4–5 marks	Evaluation of strength of argument with critical reference to strength/weakness, including some of: flaws, support given by reasons to intermediate conclusions, use of evidence, inconsistency, analogies, assumptions.
Level 2 2–3 marks	Single point of evaluation only (2 or 3 marks). Relevant extended counter-argument / Specific counter- assertions/agreements (2 marks).
Level 1 1 mark	Discussion of the topic without specific reference to the passage or general or single counter-assertion/agreement or weak attempt at evaluation.
Level 0 0 marks	No relevant comments. Summary/paraphrase of the passage.

Indicative content

Although it is true that (as stated in para 2) there is no qualification for being an expert as such, many specific areas of expertise do have qualifications.

In para 3, the author wrongly assumes that no employer (such as a university) would value and promote expertise for its own sake.

In para 4, the author unfairly generalises from an example which has been carefully selected to support his argument.

The final sentence of para 4 relies on an ad hominem argument.

Para 5 relies on the unrealistic assumption that no one ever challenges experts who give unreliable opinions.

The intermediate conclusion in para 5 is over-stated ("usually").

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(d) 'It is better to trust an amateur than an expert.'

Write your own argument to support or challenge this claim. The conclusion of your argument must be stated. [5]

Level 3 4–5 marks	Developed, coherent argument. Reasons strongly support conclusion. Development may include intermediate conclusion or apt examples. Simply structured argument 4 marks. Effective use of IC etc. 5 marks.
Level 2 2–3 marks	A simple argument. One reason + conclusion 2 marks. Two or more separate reasons + conclusion 3 marks.
Level 1 1 mark	Some relevant comment.
Level 0 0 marks	No relevant comment.

Maximum 3 marks if conclusion is implied but not stated. Maximum 3 marks if argued to wrong conclusion. No credit for material merely reproduced from the passage.

Specimen 5-mark answer

Although it is true that we should not trust a self-professed expert unreservedly, most experts do have a lot of specialist knowledge and their opinions are based on many hours of devoted study. In those aspects of life where we happen to lack the knowledge and skill to make sound choices for ourselves without taking advice from others, it is self-evidently better to be guided by someone with those qualities than by someone whose opinions are derived from ignorance and prejudice. The wisest course of action is to take advice from experts and weigh it thoroughly before making a decision.

Originally, the word "amateur" denoted someone who was passionately committed to the development of some skill or study and single-mindedly devoted their leisure time to it. Amateurs in that sense were also experts, and at best they still are. In such cases, of course, the choice between expert and amateur is a false dichotomy, and we can easily trust both.

For both these reasons, it is not better to trust an amateur than an expert.