

## **MARK SCHEME for the May/June 2008 question paper**

### **9694 THINKING SKILLS**

**9694/02**

Paper 2 (Critical Reasoning), maximum raw mark 50

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All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

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1 (a) Look at the diagram. Who was in the best position to see whether Angelica was deliberately pushed? Support your answer.

- D. [1]
- Because she is the only one with an unobstructed view of both runners/was just behind A and B. [1]

(b) Evaluate the reliability of Britanni's evidence.

B's evidence is not very reliable because:

- There is an inconsistency between her comment in the newspaper article and the enquiry; in the newspaper article she said there was a bang and flash in the crowd which made her trip, but in the enquiry she says she was tired.
- It seems inconsistent to claim that she tripped because she was tired when she continued to come second in the race.
- It seems odd that she was able to come second in the race if she twisted her ankle/tripped hard enough into A to give her significant injuries.
- B has a strong vested interest to lie if she did push A; she has a medal and a place in the squad which she might lose if she were found to be cheating.
- B has a history of rivalry with A which might cause her to push A.

Three points for 1 mark each. 2 marks for a very well developed point.

Max 1 mark for supporting the conclusion that B's evidence is reliable.

[Max 3]

(c) Whose evidence is more reliable, Cassandra's or Daniele's? Support your decision with reference to the credibility of both Cassandra and Daniele.

- C is in the same regional team as B and seems to know her so she may be biased and therefore be more likely to believe that she is innocent/take her side in any competitive or hostile exchange of comments.
- Being on the same regional team may mean she knows her well and can comment reliably on the competitiveness between her and A.
- C comments definitely about something she is unlikely to have seen clearly in the heat of a race, with a person between her and B.
- C came third in the race, so her place in the National Squad might be threatened if B is found to have deliberately pushed A. This would give her another reason to lie in support of B.
- There is some tension between C's claim that B accidentally knocked A and her claim that A was taunting B at the starting line. Here, C seems to be justifying B's action.
- D doesn't make strong claims. She admits that she could not see clearly and her limited claims fit with this.
- 'Sort of diving' is consistent either with a trip or a push.
- 'I expect she did do it on purpose,' is speculation.
- D gives us a motive for B to push A, which is not inconsistent with C's comments about competitiveness, but seen from a different angle.
- We do not know which club D belongs to, so we assume she is impartial, but she may not be. She may be annoyed with B for causing the incident which led to her (D) falling.
- If B were found guilty, D might benefit from a re-run of the race for a chance of a place in the national squad.

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**Conclusion** In terms of what they saw, D is more reliable than C. In terms of B's motivation, D seems more impartial, so probably still more reliable. However, it is possible to argue that C was more reliable.

Credit 1 mark for a supported conclusion, and three marks for appropriate supporting points which must cover both C and D.

One well developed point may be worth 2 marks.

Max one mark for comments about C's ability to see.

No credit for repeating points about D being in the best position to see what happened.

[Max 4]

**(d) How likely is it that Brittanni deliberately pushed Angelica? Write a short, reasoned argument making reference to the evidence to support your conclusion.**

**Conclusion:**

It is very/quite likely that B did push A, but not certain. It is plausible that she tripped.

**Evidence:**

There is no reliable visual evidence; the cameras were inconclusive, D couldn't see properly, and C not only probably couldn't see, she had a strong interest in supporting the accidental nature of the fall.

However, if B had really tripped, the camera might have shown her falling with A.

The rest of the evidence relates to motivation and circumstances. B's own evidence is not reliable because of inconsistency, and D, who suggests B's jealousy of A, is more reliable than C, who makes slightly inconsistent claims (that it was an accident and that A provoked B).

B does seem to have a motive to push A. Long-standing rivalry, combined with a determination to get a place in the National Squad might have been enough.

It might be surprising that B would push A in a race with cameras. If she were found to cheat, she would have a lot to lose. However, she might know that the crowd of bodies would hide her action.

A is not in a good position to know whether the person behind her tripped and knocked her or deliberately pushed her. A has lost a lot, and has a motive to lash out and find someone to blame.

It is plausible that B tripped and A is lying to cover her disappointment or to get revenge on B because of the history of rivalry. It is even plausible that B tripped and A genuinely believes that she pushed.

**Generic:**

Acceptable conclusion (in terms of probability). (1)

And:

Some reference to the evidence, made in support of the conclusion. (1)

Evaluative points made in order to support the conclusion. Some consideration of the probability of the conclusion. (2)

A reasoned argument developed on the basis of evaluation of the evidence, some consideration of the plausibility of the alternative scenarios. (3)

[Max 4]

**[Total: 13]**

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**2 (a) Identify two reasons in paragraph 1 why politicians cannot change people. [2]**

People will stay at home and smoke instead.  
When the weather is good, smokers will step outside to smoke.

2 x 1 mark. [Max 2]

**(b) What has to be assumed if paragraph 2 is to oppose politicians' claim that, "banning smoking will lead to healthier people"? [2]**

Taking painkillers/Prozac/anti-depressants/such medication will be as unhealthy as smoking.  
A significant number of people who take pain killers etc will suffer the side effects mentioned.  
Most smokers are not already taking painkillers/Prozac/anti-depressants.  
Diarrhoea, panic attacks and headaches are as unhealthy/bad for you as the consequences of smoking e.g. lung cancer/heart disease.  
People will take sufficient quantities of such medication to outweigh the benefits of stopping smoking.  
Advertising painkillers, Prozac/anti-depressants on TV means that more people are taking them.

Accurately identified assumption: 2 marks.  
Imprecise assumption or assumption expressed as counter argument: 1 mark.  
Accept: People who give up smoking will take these drugs instead. 1 mark. [Max 2]

**(c) Explain why the author's reasoning does not work well in paragraphs 3 and 4. [4]**

Paragraph 3

- Two examples of long-lived smokers are not enough to show that smoking is not generally harmful (credit answers which call this generalisation; even though Hockney does not draw the conclusion he implies it). (1)
- Hockney misrepresents the situation when he claims that 'no one gives any explanation'. There are plenty, even if he does not acknowledge them. (1)

Paragraph 4

- Calling the letter foolish expresses H's opinion and uses rhetoric to sway the reader. (1)
- It does not follow from the fact that Mr Deng is a bad example on the basis that he smoked, that anyone who does not smoke is a good example, regardless of what else they have done in their lives. So it is Hockney's reasoning which fails, not the logic of the New York Times. (1–3)
- The New York Times not printing Hockney's letter is not sufficient grounds for saying that it is, 'no longer a serious newspaper'. (1–2)
- It is an unwarranted, hasty generalisation to move from the New York Times being no longer serious, to being sceptical about everything he reads in the newspapers. (1–2)
- Credit slippery slope from one foolish letter to not serious to implication that everything in the newspapers is rubbish. (1) [Max 4]

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**(d) Write your own short argument to support a smoking ban in public places. [4]**

1 mark for reason which might support conclusion/derivative argument.

2 marks for argument with one reason and conclusion.

3 marks for developed argument (e.g. 2 reasons and conclusion/Examples + reason + conclusion.)

4 marks for developed and coherent argument (i.e. reasons offer strong support to conclusion.) [Max 4]

**[Total: 12]**

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**3 (a) Can either of the following be reliably concluded from the evidence above? Briefly explain your answers with reference to boxes B and C.**

**(i) Most legally imported species have no risk to native species, humans, livestock or other animals. [2]**

No (1 mark). They have no known risk, which is different (1 mark).

**(ii) There is 0.05% chance that a bird imported to the USA will have deadly Asian bird flu. [2]**

No (1 mark). 0.05% of bird species imported to the US have a known human disease risk (1 mark)/The bird flu figure will be considerably less than this (1 mark).

**(b) ‘The American population is a little over 300 million.’ Does this additional evidence strengthen, weaken or have no effect on the support given in box C to the claim that importing animals leaves ‘Americans vulnerable to a serious sickness outbreak’? Justify your answer. [3]**

Weakens it slightly (1) because 3 dead people in several years and 770 ill people out of 300 million are statistically insignificant (2).

It has little or no effect on the strength of this support (1) because this evidence is about infection from pets that were probably bred in the US not about imported/exotic animals such as kangaroos (1) so it is not relevant to this claim (1)

2 marks for evaluative points.

1 mark for conclusion.

[Max 3]

Accept: the size of the population has no effect on its vulnerability to outbreak of disease (1 mark)

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**(c) ‘The US should ban the import of exotic pets.’ How far does the evidence provided in boxes A–D support this claim? [5]**

Box A shows that the trade in wild animals poses a threat to the survival of some species. So reducing this trade would seem to be a good thing.

Box B shows that 302 species with a known risk to human, wildlife or livestock health were imported between 2000 and 2004. So the trend to keep exotic pets clearly makes a significant contribution to the problems caused by trade in wild animals.

Box C demonstrates some of the human health risk from animals, which is probably increased by importing exotic animals and keeping them as pets. So banning exotic pets would reduce this kind of health risk / health scare.

Banning the import of exotic pets would go some way to minimising the problems caused by exotic animals. However, it would not solve the problems caused by the species already in America. Nor would it solve future problems caused by wild animals imported for food or biomedical research. Furthermore, the trade in wild animals which threatens their extinction is not only in pets, but in body parts, so banning the import of exotic pets would be a partial response to this problem too.

Box D provides a reason not to put a ban on trade, because this can increase illegal trade. However, there may be a significant difference between banning import of animals to be kept as pets and banning trade. Banning import might cut off the demand enough that an illegal supply is less required.

So the evidence provided supports the claim to a limited extent, but by no means conclusively.

Acceptable Conclusion (1 mark)

And

Some reference to the evidence to support that conclusion (1)

Some evaluation of the evidence in support of the conclusion (2)

Evaluation of the evidence and awareness of support and counter (3)

Sound and thorough evaluation of the evidence with awareness of limitations of support and the tension between for and against. (4)

For (4) + (1), candidates should identify that some evidence gives some support, some evidence counters, but that both are limited in the extent to which they support or counter.

For (3) + (1) candidates should be aware that some of the evidence would support, some of it would counter.

For (2) + (1) make at least one evaluative comment.

(1) + (1) refer to the evidence.

[Max 5]

**[Total: 12]**

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<b>Descriptor</b>	<b>Level 3</b>	<b>Level 2</b>	<b>Level 1</b>	<b>Level 0</b>
<b>(a) analysis</b>	Identifying the main conclusion, all or most of the key reasons, and demonstrating understanding of structure.	Identifying the main conclusion and two or more of the key reasons.  OR  Identifying all the key reasons and some of the structure but confusing main and intermediate conclusions.	Recognising the general direction of the argument and some of the key reasons.  OR  Identifying the conclusion but only one or none of the key reasons.	Summary of the text/parts of the text.  Not recognising the general direction of the argument.
<b>max 5</b>	5 marks	3–4 marks	1–2 marks	0 marks
<b>(b) evaluation</b>	Evaluation of strength of argument with critical reference to assumptions, weaknesses and or flaws.	Some evaluative comments referring to assumptions, weaknesses and/ or flaws. Relevant counter argument.	Discussion of or disagreement with the argument. Weak counter argument.	No relevant comments.
<b>max 5</b>	5 marks	3–4 marks	1–2 marks	0 marks
<b>(c) further argument</b>	Relevant argument.	One or more relevant, further points.	Some further response to the argument.	No argument. Statement of disagreement or irrelevant comment.
<b>max 3</b>	3 marks	2 marks	1 mark	0 marks



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Key reasons are shown in bold below.

(a) Analysis

[Max 5]

Context: Cities around the world are increasingly full of dogs.

R1 Dog owners seem to think that their joy in their pets is shared by everyone, and fail to prevent their hairy, smelly beasts from bounding up to passers by and licking them.

R2 Worse, they happily let them chase joggers and steal children's balls.

**IC1 This (increasing numbers of dogs in cities) creates a number of problems.**

Vaguely relevant opinion which might be a solution to the problems but conflicts with the main C:

**Every dog owner in every country should have to have a licence – like an international driving licence – to show that they are competent dog owners who will treat their pets properly, control them and clean up after them.**

R3 Animals are independent beings with feelings.

IC2 As such, they should be treated with proper respect for their dignity and their rights.

IC3 It is therefore wrong to say that we 'own' another being and it is cruel to deprive it of its freedom to act as it chooses.

**IC5 So, keeping dogs in city flats, alone for much of the day, and with only streets for short evening walks is a breach of their doggy rights.**

Ex Puppies, for example, may pass the bacterium *Campylobacter* in their faeces, and this can give humans diarrhoea.

Ev Dogs also carry rabies, which is fatal to humans.

R4 Dogs can transmit unpleasant diseases.

**IC6 Dogs have a negative effect on human health.**

R5 Furthermore, animals are essentially wild.

Ev This is illustrated by the increasing numbers of pet dogs now taking antidepressants.

**IC7 They are not suited to domestic living and close company with humans.**

R6 We wouldn't even think of keeping a wolf as a pet.

**IC8 It seems strange to keep their close cousins, dogs, in our homes.**

**IC9 We can see that it is wrong to keep dogs as pets.**

**C We should support measures to significantly reduce the numbers of dogs kept as pets around the world.**

IC9 is directly supported by IC1, IC5, IC6, IC7 and to a certain extent by IC8.

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(b) Evaluation

[Max 5]

Paragraph 1

Dog owners and their dogs are stereotyped and misrepresented: just because some dog owners do not control their dogs does not mean that all do not, and it is unfair to include those who do control and care for their dogs alongside those who do not.

Assumption: most people dislike dogs licking them.

The idea of an international dog-owning licence is probably a good one, but it is a partially supported solution to a partially stated problem, and is inconsistent with the final conclusion that we should support measures to significantly reduce the numbers of dogs kept as pets around the world.

Credit points discussing weaknesses in the comparison between dog licences/driving licences.

It is not reasonable to talk about problems/international solution based on the problems only of dogs in cities.

Especially in this paragraph, the author uses emotive/rhetorical language/strong words rather than rational argument.

Paragraph 2

There is room to challenge the premise that animals are independent beings with feelings.

Assumption: animals have rights (but only just).

We have to assume that a dog's natural behaviour would not include spending long periods of time alone, or getting only short walks. This is a reasonable assumption. The reasoning in this paragraph is, therefore, ok.

However, the claim that keeping dogs in city apartments is a breach of their rights does not support the claim that we should support measures to significantly reduce the numbers of dogs being kept as pets around the world. It would support the more limited claim that we should support measures to reduce the numbers of dogs being kept in city apartments by people who leave them alone and do not walk them properly.

Paragraph 3

In order to move from 'dogs can transmit unpleasant diseases' to 'they have a negative effect on human health,' we have to assume that dogs frequently do transmit unpleasant diseases to humans and that there are no significant positive health benefits to be gained from having a dog.

The passage exaggerates the risk of getting diarrhoea from puppy faeces, by omitting to mention what you have to do to contract this disease and how easy it is to avoid. This would be a reason to be careful about cleaning up after your dog rather than to not have a dog. Dogs do carry rabies in some countries in some circumstances and it is a concern, but not strong enough to support the claim that dogs have a negative effect on human health.

So the claim that, 'dogs have a negative effect on human health' is not well supported. Even if it were, it would give only limited support to the claim about reducing the numbers of dogs kept as pets; there may be other benefits that outweigh the health risks, or the health risk may be a reason to be more hygienic with pets, rather than not have them.

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Paragraph 4

Although animals are essentially wild, many, including dogs, have been domesticated for so long that they would not be able to survive in the wild, and have adapted to domestic living.

It is unreasonable to use an argument about wild animals to make claims about such domesticated animals (wolf – dog).

The increasing number of pet dogs taking anti-depressants tells us more about their owners than the dogs' unsuitability as pets – in terms of the way the owners treat their dogs/the willingness to use drugs etc. these dogs may well be entirely healthy and happy in the company of different humans.

So the claim that it is wrong to keep dogs as pets is unsupported.

The conclusion therefore receives only limited support from the argument, although the argument does raise some genuine concerns.

**(c) Further argument**

**[Max 3]**

Credit short, relevant arguments.

Examples:

Dogs are thought to be dirty by some religions and it can therefore be distressing for these people to have to live close to other people's dogs. So we should support measures to reduce the numbers being kept as pets.

Dogs bark and disturb neighbours. The dogs must be distressed to bark so much, and the neighbours get distressed by the noise, so fewer dogs should be kept as pets to improve neighbourly relations.

Challenge:

It is healthy for people to have dogs, as they encourage walking (instead of watching TV). As people do not exercise enough, it is a good idea to encourage dog owning.

Owning a dog is good for your mental health. It boosts your self esteem to have a creature who adores you unquestioningly and gives you a sense of responsibility. So long as we ensure that people care for their dogs properly, we should not discourage dog-owning.

Credit any arguments which would support or challenge keeping a dog in the home – for example, arguments about dogs as assistants for the blind or the disabled are acceptable.

**[Total: 13]**