

## MARK SCHEME for the May/June 2007 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.

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1 (a) What can be concluded from the position of Carla’s car, and some of the other vehicles, as shown on the map

- The road was heavily congested with parked cars and would have been a reason for annoyance.
- Carla’s car was partially blocking A’s drive and would have made backing in difficult and could have provoked A.
- That it would have been unlikely that a passing car could have caused a single dent in the door of the car.
- Carla could park somewhere else.
- Cars were parked in the bike lane (which is illegal) which might annoy cyclists.

Two points.

[max. 2]

(b) Evaluate the relevance and reliability of the evidence provided by Professor Smith, and compare it with the statement by Mrs Friel.

- Professor S’s evidence is weak; it is speculation / opinion.
- S is likely to be on A’s side because S also gets annoyed by the parking / they are neighbours and may be friends.
- S may know A well enough to make a reliable comment about his character.
- S’s comment about the timing of the event is relevant.
- Mrs F is likely to be biased against A because she dislikes him.
- F’s claim is relevant as a character reference but irrelevant to the specific incident.
- F’s claim about A’s personality contradicts S’s claim.
- F and S agree on A getting annoyed by the parking.

Two points.

[max. 2]

(c) Comment on the reliability of the statement by Mrs Thomas, taking into consideration Carla’s statement.

- Mrs T would have been in a position to see the incident so no reason to suppose she was mistaken.
- T may well have been prejudiced against A, given her comments about him as reported by Carla.
- T may have been biased in favour of C because she is part of the parking problem / because she does not want to annoy an adult who works with her child.
- T doesn’t mention anyone kicking the car until C has told her who she suspects / C and T’s stories do not corroborate / if T had seen A kick the car she would have mentioned it so T does not seem reliable.

One mark for a point. Two marks for a well developed point supported by reference to the evidence.

[max. 4]

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(d) How likely is it that Dr Angelou deliberately damaged Carla Tay’s car? Construct a short reasoned argument to support your conclusion. Use the evidence provided.

Evidence:

- The only witness, T, reported that she saw A kick the car. However, she is an unreliable witness (see 1(c)).
- A had motive; the car was blocking his drive and there was a history of dispute between him and C.
- The direction of the impact is consistent with a kick. It is plausible to suggest A could have lost his temper and kicked the car but this is circumstantial evidence.
- The evidence of dispute about parking means that all the statements are questionable.
- If A had kicked the car at a busy time, while his car was blocking the road and causing traffic it is surprising that there was only one eyewitness.
- It would be surprising if A, given his status etc., would so publicly commit an offence. Therefore not entirely plausible.

Conclusion: the safest conclusion is that there is reasonable doubt that A kicked C’s car, although he had a reason to do so. The possible alternative scenarios (cyclist kicking the car etc.) seem less likely.

Acceptable conclusion:

[1]

And:

- some reference to the evidence, made in support of the conclusion [1]
- reference to the evidence and some evaluative points made in order to support the conclusion [2]
- a reasoned argument developed on the basis of evaluation of points of evidence; possibly some alternative scenarios considered [3]
- sound and well developed argument involving the weighing of evidence and balancing of probabilities; plausible alternative scenario/s taken into consideration [4]

[max. 5]

2 (a) What is the author’s main conclusion?

We ought to be using insurance policies as little as possible. 2 marks.

Accept conclusion with a supporting reason. 2 marks.

We should use insurance less. 1 mark

[2]

(b) Identify an unstated assumption in the second paragraph.

The benefits we receive from insurance do not justify the money we pay.

People who make successful insurance claims do not benefit from insurance / People are able to pay the cost of disasters or mishaps / People pay more in insurance than they gain in pay outs.

Major disasters are infrequent.

Clear statement of assumption: 2 marks

Unclear statement of assumption: 1 mark

[2]

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- (c) Consider the chain of events which illustrate the vicious circle, described in the three middle sentences of paragraph three. State which of the steps in the reasoning you think is the least convincing and explain why.

Step 1: insurance encourages people to park in dangerous places: people do not want to lose the goods inside their car / pay excess / pay increased premiums / be attacked / people love their cars and do not want them stolen / having goods stolen is an unpleasant experience / people with expensive cars would not be in dangerous areas of town / could afford to park somewhere safe.

Step 2: more thefts occur: better alarms or steering locks or security systems prevent thefts.

Step 3: more thefts mean more people take out insurance: people are more likely to react by parking in a safer place / the law requires you to have car insurance so thefts make no difference / if you can't afford insurance it doesn't matter how many thefts occur.

Good reason: 2 marks

Weak reason or statement of disagreement: 1 mark

[2]

- (d) How effective is the analogy relating to trains in the last paragraph?

The analogy is not effective because:

Problems with trains lead to loss of time whereas disasters lead to loss of money and these are too different to compare.

Being late for work is annoying, but losing your home in a hurricane is devastating so it is more reasonable to expect insurance to cover this loss than to expect trains to be perfectly on time.

Trains run to timetables and can be expected to run well; disaster is unpredictable and cannot be predicted so it makes sense to take insurance to cover the possibility.

More people take trains than fifty years ago, so there are likely to be more complaints.

This has little to do with our expectation of a life without mishap.

Complaints about trains have to do with efficiency; someone could improve the train service. Insurance is about protecting ourselves and no one can change the occurrence of mishap and disaster. This is why we take out insurance.

The analogy is effective because:

It shows that it is as unreasonable to expect a life entirely without mishap as to expect trains perfectly on time so our unrealistic expectations cause us problems.

Time is money, so being late and missing an important meeting is like a mishap such as losing your wallet.

An evaluative comment supported by well-developed comparative points: 3 marks

An understanding of a significant difference / similarity between expectations relating to trains / insurance: 2 marks

An understanding that the analogy is relating expectations: 1 mark

[max. 3]

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- (e) Give one further argument which either supports or counters the conclusion of the above argument.

Relevant reason: 1 mark

Development (e.g. R + example, intermediate conclusion): 1 mark

Conclusion (allow IC which would support C in passage): 1 mark

[max. 3]

Example:

We ought to use insurance because it gives us safety and peace of mind. For example, if a hurricane such as Katrina hits, insurance means that we can rebuild our lives. In the meantime, we don't need to worry about what might happen if a hurricane did hit.

- 3 (a) For each of the following, say whether or not it can be reliably concluded from the above passage. You must give a brief reason to support your answer.

- (i) It is not safe to convict defendants on fingerprint evidence alone.

Yes, it can be concluded. We know there are errors.

[2]

- (ii) Courts should accept scientific evidence only from methods with extremely low error rates.

No, it cannot be concluded. The reasoning supports the idea that we should find out what the error rate is and take it into account / Other methods can be used in corroboration / The author thinks this would be a waste of a powerful tool.

[2]

- (b) Identify two reasons the author uses in the last three paragraphs, to support his conclusion.

Criminals appealing against conviction by fingerprint evidence is no reason to ignore the issue.

Innocent people are being wrongly convicted.

Ignoring the existence of error also prevents fingerprint analysis being improved

It is only a matter of time before judges and juries reject fingerprint evidence.

That would be a waste of a powerful tool.

Any two.

[2]

- (c) How useful is the example of automated fingerprint recognition for the author's overall conclusion?

It demonstrates that it is possible to make mistakes with fingerprint recognition and that this error rate causes problems. It is talking about machines not people, so it is not directly transferable, but relevant – people generally make more mistakes than machines / the machine mistakes may be the result of human error anyway. Using this example also allows the author to dismiss the counter argument that acknowledging error would cause problems.

Two valid points.

[2]

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- (d) 'It would be better to imprison a few innocent people than give the guilty an easy way out of jail.' How effective is this statement as an objection to the argument?

Acknowledging error in fingerprint recognition, according to the author, would not give the guilty an easy way out of jail. If we acknowledge, quantify and take account of the error rate, we are less likely to find ourselves in the situation in which courts do not accept fingerprint evidence (because they do not know how (un)reliable it is). Thus this valuable evidence will still help to convict the guilty. The guilty may appeal, relying on the error in fingerprint evidence – but if this has been quantified and taken into account, they will have less of a case than if the error rate were uncertain. So, although a few convictions will be overturned if an error rate is acknowledged, on the author's reasoning, there will be less of an easy way out of jail than if the error rate is ignored. So, even if we accept the statement at face value, it does not weaken the case for acknowledging error in fingerprint recognition.

*Three relevant points (these may be separate reasons or include a chain) [one mark each] and an overall conclusion which follows [one mark].*

Accept but do not require arguments along the following lines:

It is never acceptable to imprison the innocent. There are many possibilities for convicting the guilty, so few convictions rely solely on fingerprint evidence. This would mean that acknowledging an error rate in fingerprint evidence would not be a get out of jail free card. In any case, we want the guilty to be convicted fairly. So, for all these reasons, we should acknowledge the error rate of fingerprint evidence. The statement expresses a prejudice which should have no impact on moral or scientific reasoning.

[4]

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4 Critically evaluate the following argument. You should :

- (a) Show that you have a clear understanding of the argument by identifying its main conclusion and the reasons used to support it.
- (b) Evaluate the argument by identifying any *unstated* assumptions and discussing any weaknesses and flaws.
- (c) Offer *one* further argument which could be used in support of or against the main conclusion.

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

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(a) Analysis

ACCEPT IC8 as MC

- R1 A few rich countries dominate the Olympic Games, winning most of the medals and the glory.  
R2 Yet it is rich countries that have the worst problems with unfit, obese populations  
IC1 They cannot be winning so many medals through being the best at sport.  
R3 Furthermore, it is impossible to succeed in the Olympic Games without sponsorship from a major international corporation.  
R4 These are all based in rich countries, so  
IC2 people from poor countries do not have a chance to win medals at the Olympics.  
IC3 **The Olympic Games now celebrate only the might of money.**
- R5 Hosting the Olympic Games provides an opportunity for rich countries to show the rest of the world how big and important they are, by building huge, useless stadiums and monuments.  
R6 These buildings divert scarce resources from projects such as hospitals or creating jobs for the urban poor.  
IC4 **So the Olympic Games can be seen to encourage the senseless and shallow spending of the rich.** (This could also be seen as supporting IC3)
- R7 It is not only governments who become inflated with their own national importance at the thought of the Olympic Games.  
R8 People in each country support runners, gymnasts or boxers from their own country, and become more patriotic and proud.  
IC5 So they feel insulted when an athlete from another country beats their athlete, and this leads to misunderstanding, fights and violence.  
R9 If it is not checked this national competitiveness could lead to wars.  
IC6 **So the Olympic Games actually create the opposite of friendship based on sport.**
- R10 If the Olympic Games were really about celebrating human physical prowess, there would only be events like running which test the human body to its limits.  
R11 However, all sorts of idiotic hobbies are included in the Olympic Games.  
R12 They are even thinking about including darts and fishing as Olympic sports.  
R13 You may as well have competitive reading events.  
IC 7 **The Olympics has clearly got nothing to do with sport any more.**
- IC8 **The Olympic Games no longer celebrate physical greatness**  
C **the name of the games should be updated to reflect this change in purpose. (ex)**

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## (b) Evaluation

### Paragraph 2

Having large numbers of obese, unfit people does not mean that rich countries do not also have fittest, best athletes. The author generalises from some to all being unfit. So, the rich countries may be winning by having better sportspeople rather than by being rich.

It is overstated to say that it is 'impossible' to win without sponsorship from a major international corporation and there are examples of people who do win without sponsorship.

The argument assumes that corporations based in rich countries will not sponsor people from poor countries. This may not be the case.

The reasoning in this passage supports the idea that being wealthy gives you a better chance. It does not support the IC that the Olympic Games now celebrate **only** the might of money.

### Paragraph 3

There is a straw person attack on rich countries' motives for building stadiums. This point is made with emotive language rather than strong reasoning.

It is inconsistent to talk about rich countries having scarce resources.

So it only partly follows that the OG encourages senseless and shallow spending.

### Paragraph 4

The text conflates being 'inflated with national importance' and being 'patriotic and proud'.

This passage confuses necessary and sufficient conditions; it may be a necessary condition of international fights / war that people feel proud and patriotic. It is not a sufficient condition.

There is a slippery slope from losing a competition to violence and war. The reasoning moves from the possibility of war to the actuality of the OG creating the opposite of friendship.

Friendship based on sport could include rivalry; the competition does not have to extend outside the sporting arena; people may feel that they have had a shared experience.

Even if the OG create unfriendly rivalry, this does not mean that they no longer celebrate physical greatness.

### Paragraph 5

R10 is a bit extreme.

Something about idiotic hobbies being unsupported.

It has to be assumed that these idiotic hobbies are not physically demanding.

It has to be assumed that thinking about including darts and fishing means that darts and fishing will be included.

Using darts and fishing, which are not actually Olympic sports, and are not typical of most Olympic events, to show that the Olympics has nothing to do with sport, doesn't work.

The analogy with competitive reading is weak; even darts and fishing require some physical skill, even if darts players / anglers do not have to be athletes at their physical prime. Darts is also a captivating competition for spectators. Reading is not.

So it has not been shown that the Olympics has nothing to do with sport anymore, just that it includes or may soon include some elements which require less physical prowess than running.

Allow other relevant comments.

So the claim, that 'The Olympic Games no longer celebrate physical greatness', has not been supported. If it not the case that the Olympics have changed so much, then the claim that the games should be renamed to reflect this change is also unsupported.

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**(c) Further argument**

Accept arguments focused on IC, 'The Olympic Games no longer celebrate physical greatness.'

*Support:*

The Olympics has changed with modern times. Modern times value many things as well as brute strength. The mental fight involved in hobbies such as chess is a true test of a skill important to us today. So it is right that the Olympics are no longer simply about physical greatness.

The Olympics is now all about brand awareness. The athletes get huge contracts to wear a certain kind of clothes or trainers, and spend their time advertising these brands. The actual sport is no longer as important as the concept of the Olympics as advertising space, so we can't say they do primarily celebrate physical greatness any more.

*Challenge*

The Olympics are valuable to many countries around the world as a competition where everyone can test their skill against each other. Even though the events may have changed, the tradition of finding out who is the greatest has stayed the same. So the name should not be changed.

The main events in the Olympics are still very physical events. The marathon, for example, really tests physical greatness, as does wrestling or javelin throwing. So the games do test and celebrate physical greatness.