

**MARK SCHEME for the May/June 2011 question paper
for the guidance of teachers**

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

- Cambridge will not enter into discussions or correspondence in connection with these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2011 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

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- 1 (a) If the driver of the blue car can be found, how significant will his/her evidence be? Explain your answer.

Very significant [1] if he/she remembers whether the traffic light turned to green before the red car started moving/turned left [1]. Or, if they had important information about the behaviour of the white car driver [1]. Of very little significance otherwise [1].

Significant because he/she is an eye-witness/can confirm the colour of the traffic light [1].

- (b) Whose evidence is more reliable, Ben's or Colin's? Explain your answer. [3]

Credit up to three of the following points:

Colin's evidence is more reliable [1]. He has no vested interest to misrepresent the truth [1], because he does not know either driver and was not personally involved in the accident [1]. Although Colin admits that he could not see the temporary traffic light (ability to see) [1], he carefully differentiates between what he did and did not see [1]. Ben has strong vested interest to misrepresent the truth in favour of his mother [1]. Although he claims to be sure that the light was green when the car moved off, and he was in a position potentially to see it [1], he has also admitted that he was not paying attention (poor ability to see) [1].

Maximum 2 if only one side considered. Maximum 2 if no explicit judgment.

- (c) How useful is the letter from the insurance company in deciding who was responsible for the accident? Explain your answer. [3]

Of little or no use [1], because the insurance company has no independent ability to see what happened [1] but has strong vested interest to interpret events in its own favour [1]. The letter produces no evidence about culpability [1] and does not attempt to assign blame [1].

- (d) Who do you think was responsible for the accident at the junction of Shelley Road and Wordsworth Road? Write a short, reasoned argument to support your conclusion, with critical reference to the evidence provided and considering 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 and evaluates the plausibility of at least one different possible course of events.
Level 2 3–4 marks	A reasonable answer, which evaluates the evidence, draws an acceptable conclusion and may mention the plausibility of at least one different course of events.
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.

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Indicative content

Alice was [mainly] responsible for the accident, because drivers should always check before turning left that there is no traffic coming towards them.

The evidence that the traffic light had turned green before Alice moved off is weak (vested interest), but no other evidence directly contradicts it.

Dennis **may** have been **partly** to blame, **if** he drove through the temporary traffic lights as they turned red or shortly after, and **if** he failed to slow down (although, according to Colin, it would have been impossible for him to drive really fast under the conditions of the road). Several points of evidence suggest that this may have happened, but none states it directly. It is possible that the traffic lights were faulty or badly adjusted, so that one side turned green before traffic from the other direction had time to pass through the roadworks.

- 2 (a) **'Homoeopathy should be used for all patients.'** Can this be reliably concluded from Dr Asif's statement (Source B)? Explain your answer. [3]

Credit up to three of the following points:

No/This statement is too strong to be concluded from Dr Asif's statement [1]. Dr Asif admits that he chooses it in only 9 cases out of 10 [1], which means he does not use it for all patients [1], and the list of conditions for which he claims it has a "dramatic effect" is limited [1], which means it is less effective for some conditions/patients [1].

- (b) **How effectively does Dr Branchflower reply to Mrs Courtney's claims (Source B)?** Explain your answer. [3]

Credit up to three of the following points:

Dr Branchflower answers Mrs Courtney's arguments well [1], by pointing out the important information missing from her account of her daughter's illness [1] and by suggesting alternative explanations for the improvement in her daughter's condition [1], but he is unlikely to persuade her [1], because he is unable to prove that the improvement did not happen as a result of homoeopathy [1].

Maximum 2 if no judgment.

- (c) **According to Source D, recent scientific research has suggested that homoeopathy is ineffective as a medical treatment. Can we reliably conclude that people will cease to use homoeopathic treatment as a result of this research?** [3]

Credit up to three of the following points:

No/Some people may cease to use it, but others will continue [1]. Since the claim refers only to "some" clinical trials, it is possible that other research has come to different conclusions [1]. Doctors and patients who believe that the results of scientific research are reliable will be influenced against the use of homoeopathic medicine [1], but people (especially of less education [1]) who are more influenced by personal experience and testimony will be swayed by comments such as those by Dr Asif and Mrs Courtney [1]. People who are desperate because orthodox medicine has failed to cure their illness may try homoeopathic medicine as a last resort [1].

- (d) Should homoeopathy be recognised as a valid form of medical treatment? Write a short, reasoned argument to support your conclusion, using and evaluating the information provided in Sources A–D.

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 a weak argument, which makes no reference to evidence.
Level 0 0 marks	No credit-worthy material.

Maximum 3 marks if conclusion is implied but not stated.

Indicative content

Scientific research generally does not support the claims of homoeopathy, and it seems impossible that such heavily diluted materials could have any effect whatever.

Dr Branchflower is right to point out that illnesses often improve spontaneously. The apparent effectiveness of homoeopathy is also often attributed to the placebo effect.

Even allowing for bias or vested interest on the part of Dr Asif and Mrs Courtney's lack of expertise, their evidence strongly suggest that homoeopathic medicine can help at least some illnesses. The positive reports from patients recorded in Source C (fourth bullet-point) are unreliable for various reasons, but they give at least some support to these claims. Combined with the data about the popularity of homoeopathic remedies in Source C, it seems likely that homoeopathic remedies give some relief from conditions like colds, influenza and anxiety. Even if they are alleviating symptoms rather than curing the underlying condition, that is not necessarily a bad thing, especially when orthodox medicine is unable to offer a cure.

Despite the clear vested interest of the websites to select data to support their own position, the statistics in Source C reveal an increasing willingness amongst medical professionals and the lay public to recognise that various kinds of alternative medicine may have some value.

Since it seems highly unlikely that homoeopathic medicine could harm anyone, it would probably be unreasonable to prevent patients from having access to the materials and to the advice of a homoeopathic practitioner if they wish to have recourse to them at their own expense. However, countries which have a National Health Service could reasonably refuse to supply such remedies, and insurance companies could reasonably decline to pay for them, on the grounds that they lack scientific credibility.

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

2 marks: This admiration/admiration of people who behave unselfishly is [however] misplaced.
 1 mark: This admiration is, however, misplaced, because there is no such thing as unselfishness.

(b) "...there is actually no such thing as unselfishness."
 Using the exact words from the passage as far as possible, identify three reasons used to support this claim. [3]

- Even those actions which appear to be unselfish must really be selfishness in disguise.
- The simple fact that someone expects to be rewarded for their actions means that those actions are not unselfish at all.
- People who are not motivated by religion are also acting selfishly even when they seem to be putting the needs of other people before their own.
- Even anonymous actions are actually motivated by self-interest.

(c) Evaluate the reasoning in the argument. In your reasoning 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	Relevant extended counter-argument (3 marks). Specific counter-assertions/agreements (2 marks). Single point of evaluation only (2 or 3 marks).
Level 1 1 mark	Discussion of the topic without specific reference to the passage or general counter-assertion/agreement or weak attempt at evaluation.
Level 0 0 marks	No relevant comments. Summary/paraphrase of passage.

Indicative content

- The argument reported in paragraph 2 begs the question/is circular, since it begins by assuming the conclusion.
- The argument in paragraph 2 depends on the assumption that the theory of evolution is true.
- Dubious/unknown whether 'unselfishness' has a genuine genetic basis.
- The appeal to authority in paragraph 2 is partly legitimate, since the reasoning used by the philosophers and psychologists is stated, but the reference to the academic sources is also intended to influence the reader in favour of their claims.
- All of the main points in paragraphs 3, 4 and 5 consist of rash generalization, requiring the controversial assumption that there are no exceptions.
- This argument succeeds in showing how all apparently unselfish behaviour could be based on selfish motives, but it does not show that it always is (confusion of purpose and consequence).
- The whole argument is non-falsifiable and therefore arguably vacuous.

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- (d) "Selfishness is the best policy." Write your own argument to support or challenge the claim.

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 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.

No credit for material merely reproduced from the passage.

Indicative Content (specimen 5-mark answers)

Support

Behaving unselfishly is an inefficient basis for community life, because we may often misjudge what other people would like. It would be much simpler if everyone did what they wanted, because no one knows what will please and benefit individuals better than they do themselves.

We are also likely to be more committed to projects which are intended to benefit ourselves than to the good of others. So more good will be done overall.

If everyone acted in their own interests, then overall this would achieve the greatest good of the greatest number. So even though selfishness may seem to be immoral, it would actually produce the most moral results.

Selfishness is the best policy, because it is the most efficient way of maximizing benefits.

Challenge

We enter life with unequal talents, privileges and opportunities. If everyone looked after their own interests, without being concerned for the welfare of anyone else, those inequalities would increase, which would lead to a great deal of unhappiness. A mark of a humane and civilised society, by contrast, is that people look out for one another, and the more favoured help those less fortunate than themselves. That is the kind of community in which we would all like to live.

Not only do all religions exhort their followers to put the needs of others before their own, but all secular moral teaching does the same. There were good reasons why the ideal of unselfishness was set before us all at school.

We all know that selfishness produces much less desirable consequences than unselfishness. So selfishness is not the best policy.