

**MARK SCHEME for the October/November 2012 series**

**9694 THINKING SKILLS**

**9694/22**

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) How reliable is the evidence given by the supermarket manager in Source C?

Corroborated by Geri Atric in Source E, [1] if this is the same incident [1]. Also corroborated with Source D as regards Benji's out of control behaviour [1]. However, the supermarket manager has a vested interest in putting the blame on Mrs Kitty's lack of control of the child [1]. His evidence is second-hand and based on reports of staff that were eyewitnesses [1]. These reports may be biased towards him/the store [1]. His evidence on what the child was shouting is somewhat implausible and therefore unreliable – it seems rather sophisticated for a 5-year-old child [1]. His evidence on supermarket policy would seem to be reliable as it is easily verifiable/he has expertise/ability to know [1].

(b) How significant is the evidence in the confidential report in Source D? [3]

Some significance in as much as Source D adds plausibility to the evidence regarding Benji's behaviour given by the staff in Source C [1]. It also helps explain the mother's attitude in Source B [1]. Additionally, significant because it suggests Benji is badly-behaved/difficult to control [1] and it is from professional sources involved with children [1]. However, we cannot necessarily assume that bad behaviour at school is repeated in other contexts [1] and it is significant that the mother disagrees with the report; this might be because he is OK in other contexts rather than that she is in denial [1]. The significance may also be reduced as we do not know whether Benji has been subsequently given medication/treatment which has succeeded in controlling his condition [1].

Alternatively, not very significant at all [1] because Mrs. Kitty has not claimed that Benji was calm, only that the positioning of the display was dangerous [1]. Also, the evidence has no direct relation to this specific incident [1].

*Limit to 2 marks if only one side covered.*

(c) How useful is the evidence given in Source E? [3]

It possibly offers a view of what happened from a neutral source i.e. somebody uninvolved with the supermarket [1]. However, the elderly may have a lack of understanding or sympathy with young mothers/children and be biased against them [1] and nobody is actually a reliable eye-witness to this specific incident (i.e. it might not be Benji)[1].

On the other hand it is useful in suggesting that:

- Groups other than children (i.e. the elderly) may find these displays a hazard. [1] as evidenced by Lily The Pink's comments.
- Supermarkets should do more to help mothers with young children by supplying crèches [1].

This is useful because it suggests that, even if Benji is running around uncontrollably, the supermarket cannot fully escape responsibility [1].

- (d) Should the supermarket be held liable for this accident? Write a short, reasoned argument to support your conclusion, with critical reference to the evidence provided and with consideration of any plausible alternative scenarios.

|                             |                                                                                                                                                                                                                                             |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Level 3</b><br>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. |
| <b>Level 2</b><br>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.                                                                       |
| <b>Level 1</b><br>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.                                                                                                 |
| <b>Level 0</b><br>0 marks   | No credit-worthy material.                                                                                                                                                                                                                  |

*Indicative content*

The positioning of the display does seem to be hazardous. It is a hazard not just to children but the elderly as well. The point that the display conformed to normal supermarket policy is irrelevant to the question of whether or not it is a hazard. The evidence about Benji's behaviour and whether or not she was with him is inconclusive, but Benji's mother does not actually state that she was with him at the time and does admit he ran into the cans which implies he is rather out of control. However, even if he was behaving badly and had been unsupervised at the time of the accident, the supermarket should arguably accept that mothers finding it difficult to shop and supervise their children is a likely 'fact of life' and take steps to avoid displays which can be knocked over easily and/or provide a crèche. So they should accept some liability even if Benji was behaving badly. This liability is increased if Benji was simply behaving in a child-like way and ran into a badly positioned display.

The supermarket's liability is arguably increased by the manager's statements about policy. The manager implies that the positioning of the display is more to do with commercial advantage than any other consideration. The diagram suggests the display is badly sited and causes an obstruction which is likely to be hit by customers, particularly in crowded conditions.

- 2 (a) "If you like grapes and apples you should like the grapple!" Can this be reliably concluded? [3]

No [1]. It does not follow that combining two different nice tastes results in a nice taste [1]. For example, lemonade mixed with gravy might not be a happy combination [1].

*2 marks for explanation which is developed through an example or some other way.*

- (b) The author of Source C concludes that scare stories about hybrid fruits are not justified. How relevant to this conclusion is the evidence he presents? [3]

Not at all / not much [1]. The fact that there are plants in nature that are seedless and reproduce in other ways is not relevant to the question of the implications of turning a natural seeding fruit into a seedless fruit [1]. The age of the practice is irrelevant to a question of

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how concerned we should be about it [1] unless the absence of problems so far has not been used as evidence [1]. In any case, the new types of hybridization seem much more radical and use new technologies [1]. The final point assumes that critics of hybridization are concerned about genetic modification, which if not true makes the evidence irrelevant [1].

- (c) **Suggest two explanations for the increased popularity of hybrid fruits in the USA in 2004 compared to 2003? (Source E).** [3]

Not many hybrid fruits had been developed in 2003 / more hybrid fruits came on to the market in 2004.

People were unaware of hybrid fruits in 2003 / advertising campaigns etc. increased awareness of them in 2004.

The price was high in 2003 due to hybrid fruits being scarce / the price lowered in 2004 as more hybrid fruit came on to the market.

2003 was a year of economic hardship compared to 2004 / people's incomes rose during 2004.

*Guidelines*

- 3 marks for two plausible explanations, at least one of which is developed.
- 2 marks for one developed explanation or for two undeveloped explanations.
- 1 mark for one undeveloped explanation.

- (d) **Should we be concerned that hybrid fruits will replace natural fruits in the future? Write a short, reasoned argument to support your conclusion, using and evaluating the information provided in Sources A – E.** [6]

|                             |                                                                                                                                                                           |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Level 3</b><br>5–6 marks | A strong, reasoned argument, which uses and evaluates all or most of the evidence provided.                                                                               |
| <b>Level 2</b><br>3–4 marks | A reasonable, simple argument, which uses and/or evaluates evidence.                                                                                                      |
| <b>Level 1</b><br>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. |
| <b>Level 0</b><br>0 marks   | No credit-worthy material.                                                                                                                                                |

*Indicative content*

There are two approaches here but answers can get full marks for a good coverage of either approach as well as covering both. It is unlikely, however, that there would be enough to say about the first approach alone.

**First line of reasoning**

We should not be concerned because it won't happen. Source E suggests conventional fruit is still the most popular and the market share for hybrid fruit appears to be leveling off after early growth. Going on Source A the range of fruits seems to be quite small and the fruits of a similar type (e.g. plum/apricot).

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**Second line of reasoning**

There seem to be a number of reasons why this is likely to happen, e.g. Source D points to commercial considerations. Source E suggests hybrid fruit is growing in popularity worldwide, albeit at different rates. Source D suggests it is part of a much wider trend of cross-species hybridization with big powerful companies behind it. There also seems to be a number of reasons why we should be concerned. Source B shows what is happening to bananas and if they could disappear in 10 years presumably this could happen to other hybrid fruit. However, we are not actually told that bananas are a hybrid and disease could presumably wipe out a conventional fruit. Source C produces weak and irrelevant evidence as to why we should not be concerned. Source D suggests that hybridization increases multinational power and undermines the independence of farmers. Source D suggests a slightly more subjective line of reasoning which is the disappearance of natural fruits and the severing of the links with nature – fruit becomes more like chocolate bars or popular hamburger brands. However, Source C does give us grounds for believing that what we regard as ‘natural’ fruits may be as much a product of human interference with nature as the new hybrid fruits.

A third line of reasoning is that it will happen but this should not concern us. This approach should be fully credited but there is likely to be less opportunity for evaluation of evidence in the sources. If answers offer an ‘essay’ on the virtues of hybrid fruit with no reference to the evidence then this should be capped on 2.

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

(However, in the 21st century) we should cease relying on medical science to do this/maintain our health [2].

We should cease relying on medical science [1].

- (b) **Using the exact words from the passage as far as possible, identify three reasons used to support the main conclusion.** [3]

- Future medicine will be without antibiotics.
- There will be an increasing gap between what is medically possible and what is affordable.
- People have excessive expectations of the medical profession.
- So we should concentrate on developing a healthier lifestyle.
- We have a range of other medical treatments (which offer an alternative to conventional medicine.)

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

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| <b>Level 3</b><br>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. |
| <b>Level 2</b><br>2–3 marks | Single point of evaluation <b>only</b> (2 or 3 marks).<br>Relevant extended counter-argument / Specific counter-assertions/agreements (2 marks).                                                                         |
| <b>Level 1</b><br>1 mark    | Discussion of the topic without specific reference to the passage<br><b>or</b> general counter-assertion/agreement<br><b>or</b> weak attempt at evaluation.                                                              |
| <b>Level 0</b><br>0 marks   | No relevant comments.<br>Summary/paraphrase of the passage.                                                                                                                                                              |

*Indicative content*

**Assumptions**

Para 1: The expression “medical science” does not include alternative medicine.

Para 2: If a crucial aspect is missing then the thing becomes worthless.

Para 2 There are no other medical treatments other than antibiotics that might be developed to combat superbugs.

Medical science has no role in preventative medicine. The reasoning in Para 5 relies on this assumption.

**Flaws**

Contradiction between second para where we will have no antibiotics and the final para where it is suggested there are/will be, in effect, herbal antibiotics.

Unclear meaning to term “medical science”.

There is an element of ‘straw man’ throughout the reasoning in representing the relationship between people and the medical profession as one of reliance. Whilst people may value the medical profession and be reassured that it is there, this does not mean they rely on the medical profession as a way of maintaining their health.

Conflation between antibiotics and all medicines to treat superbugs.

**Other lines of reasoning**

The analogy in para 2 is exaggerated and relies on a conflation between ‘crucial’ and ‘essential’. Medicine without antibiotics is arguably more like a car with only 2 gears.

It is not clear that antibiotics are needed in after care for all operations.

It is possible that very stringent hygiene measures could make the risk of infection in hospitals very minimal.

One cannot draw the conclusion that all medicine is rendered useless from the point that it can no longer rely on antibiotics. Presumably there are other pills and treatments.

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The reasoning in Para 3 supports a different conclusion i.e. society will have to rely on medical treatment. This is not the same as society not relying on it in some total sense. The author confuses the point that individuals mustn't assume that all possible treatments will be available with the question of the role of medicine in society at large.

The reasoning about excessive expectations in Para 4 could apply as much to alternative as to conventional medicine and therefore would undermine the author's reasoning in the final paragraph. Also, if people are using something inappropriately it seems a bit drastic to get rid of it rather than educate people in appropriate use.

The reasoning in Para 5 ignores the point that medical science increasingly sees its role as one of promoting health rather than curing people. Medical intervention may be crucial in promoting healthier lifestyle. So this would mean it would still have an important role in maintaining health. Also, the reasoning could apply as much to alternative medicine as conventional medicine.

**(d) 'Prevention is always better than cure.'**

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

|                             |                                                                                                                                                                                                           |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Level 3</b><br>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. |
| <b>Level 2</b><br>2–3 marks | A simple argument. One reason + conclusion 2 marks. Two or more separate reasons + conclusion 3 marks.                                                                                                    |
| <b>Level 1</b><br>1 mark    | Some relevant comment.                                                                                                                                                                                    |
| <b>Level 0</b><br>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.*

*Argument for*

It is better for us to take steps to avoid ill health. Even if there is a cure, we will still have the unpleasant experience of being ill. Moreover, treatments often have unpleasant side effects which can be long lasting. Therefore prevention is always better than cure.

*Argument against*

It is impossible to avoid catching minor ailments such as colds in a society where people are often crowded together thus spreading infection. If we wanted to prevent this happening we would never go out. It is simple enough to take a cold remedy if one does catch a cold. Therefore prevention is not always better than cure.