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THINKING SKILLS **9694/23**

Paper 2 Critical Thinking **October/November 2016**

MARK SCHEME

Maximum Mark: 45

Published

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) Suggest <u>two</u> pieces of further evidence which, if true, would affect the reliability of Source A, and state the effect in each case. [4]

2 marks for each clear, valid answer.
1 mark for each vague, incomplete or marginal answer.

Sample 2-mark answers
- If Mr Chan had previous warnings/convictions for dangerous driving: strengthen.
- If Mr Brown had poor eyesight and had therefore been unable to see the incident clearly: weaken.
- If Mr Brown had a history of making unproven allegations against strangers: weaken.
- If Mr Brown had a grudge against MNQ transport or Mr Chan: weaken.
- If MNQ's records confirmed that a lorry was driving down Oxton Road at the relevant time: strengthen.
  Credit other forms of corroboration, e.g. surveillance camera, Mr Chan's phone records.

Do not credit an answer which is the opposite of one already credited.

(b) Is Source C an argument? Briefly justify your answer. [2]

2 marks for a correct answer with accurate explanation.
1 mark for a correct answer with vague or generic explanation.
0 marks for correct answer without explanation.
0 marks for incorrect answer with or without explanation.

2-mark answer
Yes, it is an argument. The conclusion, "you must withdraw the letter," is supported by three reasons.

1-mark answer
Yes, it is an argument. It consists of a conclusion supported by reasons.

(c) Suggest and briefly explain <u>two</u> reasons why Source D is of little use in deciding whether Mr Chan had driven dangerously down Oxton Road. [3]

3 marks for two plausible reasons, at least one of which is developed.
2 marks for one developed reason or for two undeveloped/marginal reasons.
1 mark for one undeveloped/marginal reason.

Developed reasons
- Mr Lopez has a vested interest to defend his friend Mr Chan, who has asked for his support, and is therefore unlikely to say anything bad about him.
- Mr Lopez was not present at the incident, and therefore had no ability to see whether Mr Chan drove dangerously or not.

(d) How likely do you think it is that Mr Chan drove dangerously down Oxton Road? Write a short, reasoned argument to support your conclusion, with critical reference to the evidence provided and considering a plausible alternative conclusion. [6]

Level 3 5–6 marks	A strong answer, which provides a reasoned argument including thorough evaluation of all or most of the evidence to support an acceptable conclusion in terms of probability and evaluates the plausibility of at least one alternative conclusion.
Level 2 3–4 marks	An answer which evaluates some of the evidence, draws an acceptable conclusion in terms of probability and may mention the plausibility of at least one alternative conclusion.
Level 1 1–2 marks	A weak answer, which refers to some of 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

Possible answers:

- It is most probable that Mr Chan did drive dangerously (too fast and while using a mobile phone), but it cannot be proved and so his employers cannot take disciplinary action against him.
- It is possible that a different driver from the MNQ company was the person observed driving dangerously.
- It is possible that Mr Brown was mistaken, and the driver he observed was actually driving safely.

It is unlikely that Mr Brown had any motive for contacting the company apart from a concern for public safety. But he may lack expertise or ability to see clearly and he may have a reputation as a busybody. As indicated in the answer to 1(c), Source D is of little value. The fact that the company withdrew the warning (Source E) shows that the company was unable or unwilling to prove the driver's guilt, but this does not necessarily imply that he was not guilty.

2 (a) How well does the evidence in Source B support its claim that "Most family doctors have given a placebo to at least one of their patients"? [3]

Not very well / not at all **[1]**. It depends how broadly you define "placebo" **[1]**. Only 10% of the doctors had prescribed something which was definitely intended as a placebo **[1]**. Most of the treatments mentioned (complementary medicines and medication approved for other illnesses) may have some benefit to patients independently of the placebo effect **[1]**.

(b) The manufacturers of Obecalp® recommend it particularly for use with children. Suggest and briefly explain <u>two</u> reasons why a placebo might be more useful for children than adults. [4]

For each of 2 answers:
2 marks for a clear explanation of a valid reason.
1 mark for an obscure or incomplete explanation or a marginal reason.

Specimen 2-mark answers:

- Medicines for children tend to be provided by a parent rather than a doctor. Parents may be more likely to make use of placebos.
- Medicines for children tend to be dispensed by a parent rather than by patients themselves. So children are less likely than adults to know what they are taking.
- Children are likely to trust that their parents would give them only medicine which is likely to make them better.
- Children may be more likely to complain of nonspecific or minor illnesses than adults, and placebos are useful mainly for complaints of this kind.
- Children are less likely to know about the placebo effect; such knowledge may well undermine the efficacy of any placebo treatment.
- Many treatments used for adults are unsuitable for children, so there will be more occasions where conventional medicine is not an option.

(c) The author of Source C claims that placebos are based on deception. Identify one point from the sources which is <u>inconsistent</u> with this claim, and briefly explain why it is inconsistent. [2]

The second sentence of Source A states, "In one study, patients reported improvements even though they actually knew they were taking a dummy pill."**[1]**. This suggests that placebos do not rely on deception for their effectiveness **[1]** and some doctors prescribing them may therefore tell patients the truth about what they are doing **[1]**.

(d) 'Doctors should not prescribe treatments which have no active ingredients.'

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–E. [6]

Level 3 5–6 marks	A reasoned argument, which uses and evaluates all or most of the evidence provided.
Level 2 3–4 marks	A simple argument, which uses and/or evaluates evidence.
Level 1 1–2 marks	A weak answer, which makes some correct 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

- It can be argued on the basis of Source A that placebos should be prescribed in appropriate cases,
- since they do provide relief.
- The efficacy of placebos is confirmed by Source D.
- Source E also emphasizes the value of placebos, perhaps especially in the case of children,
- but it is clearly biased by its vested interest to promote its product.
- As the answer to part (a) indicates, the first line of Source B grossly overstates the findings of the survey. Most of the treatments mentioned there are not ones with "no active ingredients".
- Source C makes several important and valid objections against the use of placebos.
- However, if the second sentence of Source A is true, it might even be possible to obtain the beneficial effects without deceit,
- which counters one of the points made in Source C.

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

2 marks: (instead,) they [politicians and religious people] should be working and praying for war.
1 mark: Recognisable paraphrase of the above.
OR Politicians say they are trying to make peace, and religious people pray for peace, but instead they should be working and praying for war.

(b) Using the exact words from the passage as far as possible, identify <u>three</u> intermediate conclusions. [3]

1 mark for each of the following, to a maximum of 3:

- (Thus) war has been an essential element in evolutionary progress.
- War (, similarly,) brings about major progress in science and technology.
- Wars bring many economic benefits to the countries which are involved in them.
- there are moral benefits to war.
- Peace-mongers are cowards.

Allow one additional element or one significant omission in each case.
If more than three answers are offered, mark the first four only.

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

Marks for each evaluative point as follows, up to a maximum of 5 marks:

2 marks: Valid evaluative point, clearly expressed.
1 mark: Weak attempt at a valid evaluative point.

Paragraph 1
- Irrelevance: natural selection is a theory about genes, but 'advanced civilisation' is result of many other factors.
- Ambiguity: the first part of this paragraph relies on ambiguity in the meaning of the word "finest"; *this point can alternatively be expressed as an assumption.*
- Conflation: the argument illegitimately moves from "a form of war" to "war", as if the two expressions meant the same.

Paragraph 2
- Flawed analogy: the costs of space exploration are not comparable with the 'costs' of war.
- Assumption: the third sentence relies on the assumption that these inventions would not have occurred without war.
- Conflation: of 'military purposes' and 'war': military technologies may be developed in order to deter wars.

Paragraph 3
- Assumption: that employment and production are desirable in and of themselves, even if the product does no one any good.
- Assumption: that the economic benefits of war are not outweighed by the costs.

Paragraph 4

- Begging the question/circular reasoning: the first sentence begs the question/argues in a circle, by identifying belligerent qualities as "the most admirable".
- Assumption: that there are no other, preferable, ways of developing these admirable qualities.
- Generalization: the second sentence illegitimately generalizes from a single example of a poet.
- Assumption: that the admirable qualities are not outweighed by bad qualities developed in war.

*NB Do **not** credit the second half of the last sentence as an* argumentum ad hominem*.*

Paragraph 5

- *argumentum ad hominem*: second sentence.
- Assumption: that wars are fought only to combat "tyranny and injustice" (they often cause it).
- Straw man or *argumentum ad hominem*: final sentence.

(d) 'The most important duty of any government is to live at peace with other countries.'

Write your own short argument to support <u>or</u> challenge this claim. The conclusion of your argument must be stated. Credit will not be given for repeating ideas from the passage. [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 for wrong conclusion or if conclusion is implied but not stated.
No credit for material merely reproduced from the passage.

Specimen level 3 answers

Support (119 words)

The most significant step in the development of civilization occurred when individuals voluntarily handed over some of their autonomy to an elected government. Before that, everyone's attention and efforts were devoted to feeding themselves and defending themselves from aggression. They had no energy or time to spare for any activity which was not essential for their own survival. The development of industry and culture became possible when the right and obligation of self-defence were delegated to a government, which levied taxes in order to pay a professional army. This freed the rest of the population to pursue other callings and activities in peace. Therefore the most important duty of any government is to live at peace with other countries.

Challenge (103 words)

Voters choose a government to look after their own interests. Because most people regard their own financial well-being as their top priority, they expect their government to put economic issues at the top of the national agenda. Admittedly, economic advancement is impeded if the population lack education or if they are at war. So education and defence are important secondary issues, and governments are expected to devote to them some of their efforts and of the national budget. But they are a means to an end. Therefore the most important duty of any government is not to live at peace with other countries.