
THINKING SKILLS

9694/23

Paper 2 Critical Thinking

October/November 2017

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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Question	Answer	Marks
1(a)	This contradicts Professor Eno's claim about his son's experience [1], which means that Professor Eno has exaggerated (<i>accept</i> lied about) his son's suitability for the job [1]. Together with the daughter's admitted lack of experience [1], this reduces Professor Eno's credibility [1] and suggests that his actions have been motivated by vested interest to benefit his own children [1], which adds plausibility to the subsequent allegation that he has defrauded the University in order to pay excessive fees to his children [1].	3
1(b)(i)	<p><i>2 marks for a developed answer; 1 mark for undeveloped answer.</i></p> <ul style="list-style-type: none"> • If Mr Devi has been making these allegations, they may be evidence of his animosity towards Professor Eno. • If Mr Devi has been making these allegations, they show that he suspects Professor Eno, which raises the possibility that he may be guilty. • If Mr Devi has been making these allegations, they give him a motive for obtaining the accounts, as alleged in Source E. • The allegations may be true, which provides a possible motive for Professor Eno to protect himself by denying Mr Devi access to the accounts. • The allegations may be true, which provides a possible motive for Professor Eno to protect himself by accusing Mr Devi of theft, in order to reduce his credibility. 	2
1(b)(ii)	<p><i>2 marks for a developed answer; 1 mark for undeveloped answer.</i></p> <ul style="list-style-type: none"> • The lawyers do not know whether Mr Devi did make these allegations, nor – if he did – whether they are true or not. • The lawyers do whatever their client asks them to, and he may have a vested interest to misinform them. • The lawyers have a vested interest to misinterpret the truth in order to protect their client. 	2
1(c)	<p><i>2 marks for a clear, valid answer; 1 mark for a vague, incomplete or marginal answer.</i></p> <ul style="list-style-type: none"> • He may wish to harm Allan Devi out of revenge because Mr Devi secured the appointment he expected to get. • He may hope that Mr Devi will resign or be dismissed and he will be appointed in his place. • He may hope that if Mr Devi resigns or is dismissed, there will be no investigation of past financial irregularities / Mr Devi's allegations against him will have less credibility. • He may hope to avoid being encouraged to take early retirement. 	2

Question	Answer		Marks								
1(d)	<table border="1" data-bbox="300 253 1321 723"> <tr> <td data-bbox="300 253 507 394">Level 3 5–6 marks</td> <td data-bbox="507 253 1321 394">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 alternative conclusion.</td> </tr> <tr> <td data-bbox="300 394 507 537">Level 2 3–4 marks</td> <td data-bbox="507 394 1321 537">A reasonable answer, which evaluates the evidence, draws an acceptable conclusion in terms of probability and may mention the plausibility of at least one alternative conclusion.</td> </tr> <tr> <td data-bbox="300 537 507 647">Level 1 1–2 marks</td> <td data-bbox="507 537 1321 647">A weak answer, which refers to the evidence, possibly including a simple evaluative comment. The conclusion may be unstated or over-stated.</td> </tr> <tr> <td data-bbox="300 647 507 723">Level 0 0 marks</td> <td data-bbox="507 647 1321 723">No credit-worthy material.</td> </tr> </table> <p data-bbox="300 763 552 790">Indicative content</p> <p data-bbox="300 831 1267 893">There are basically three ways of understanding this case, and candidates may reasonably take any of these approaches:</p> <p data-bbox="300 913 1326 1010">(i) The failure of the Heritage Tour was due to circumstances outside the control of Professor Eno or his children. He is innocent of any wrong-doing, but anxious not to be made a scapegoat.</p> <p data-bbox="300 1048 1302 1144">(ii) Mr Eno has been enriching his family at the expense of the university, and he is now trying to prevent Mr Devi from exposing his wrong-doing; on this understanding, he is guilty of defrauding the university.</p> <p data-bbox="300 1182 1307 1245">(iii) Both men may be innocent of the allegations made against them, but they may be influenced by suspicion of one another.</p> <p data-bbox="300 1283 1310 1413">Perhaps the most likely explanation lies somewhere between (i) and (ii). In other words, the profitability of the Heritage Tour fell short of expectations, partly, but not wholly, to generous (but not “excessive”) fees paid to Professor Eno’s family.</p> <p data-bbox="300 1451 775 1478">Notes for the guidance of markers</p> <p data-bbox="300 1518 1121 1545">Simple supported conclusion 1 (if no conclusion cap at Level 2)</p> <p data-bbox="300 1585 826 1648">+ simple consideration of alternative +1 AND reasoned rejection of alternative +1</p> <p data-bbox="300 1686 1139 1749">+ explicit use of some (3 or fewer) sources of evidence +1 OR explicit use of all or most (4 or more) sources of evidence +2</p> <p data-bbox="300 1787 1114 1850">+ critical evaluation of evidence +1 or (more than one case) +2 + good inferential reasoning +1 or (more than one case) +2</p> <p data-bbox="300 1888 379 1915">Max 6</p>		Level 3 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 alternative conclusion.	Level 2 3–4 marks	A reasonable answer, which evaluates 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 the evidence, possibly including a simple evaluative comment. The conclusion may be unstated or over-stated.	Level 0 0 marks	No credit-worthy material.	6
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Question	Answer	Marks
2(a)	<p>It is not just the amount of food which influences growth [1], but the quality/type/nutritional value is relevant [1]. Source B describes the food eaten by Americans in recent decades as “junk food” [1].</p> <p>There could be an optimal amount of food for growth [1], and Americans are now exceeding it [1].</p> <p>The nature of work has changed significantly between Sources A and B [1]. Sedentary work does not require the same amount of food and physical labour [1].</p> <p>The comparisons of Americans’ heights with other nationalities are different [1]: Source A compares them to Europeans, but Source B only mentions ‘other nationalities’ [1].</p>	4
2(b)	<p>Not effective [1]. Genetics being the main factor is compatible with diet and/or health-care having some influence [1]. The objection refers to the height of individuals within a population [1], whereas the claims in Sources A, B and C refer to averages over time/between generations [1]. The influence of genetics on height is not as simple as the student imagines [1].</p> <p><i>Credit should be given to the following explanation, if anyone suggests it:</i></p> <p>It is possible to connect changes in the average height of a population to the stability of genetic traits [1] by reference to the principle of natural selection (theory of evolution) [1], if taller people are more likely to pass on their genes than shorter people [1]. However, this is unlikely to be noticeable over such a short time frame as envisaged in these sources [1].</p>	3
2(c)	<p><i>1 mark for each of the following:</i></p> <p>Recruits may tend to be shorter than the average, if more people from poor/deprived backgrounds join the army than people who have enjoyed better health care and better nutrition during childhood and adolescence or if recruits have not yet reached their full height [1].</p> <p>Recruits may tend to be taller than average if the army restricts recruitment to people who pass certain standards of fitness and physical development.</p>	2

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2(d)	<table border="1" data-bbox="308 248 1313 651"> <tr> <td data-bbox="308 248 475 333">Level 3 5–6 marks</td> <td data-bbox="475 248 1313 333">A reasoned argument, which uses and evaluates all or most of the evidence provided.</td> </tr> <tr> <td data-bbox="308 333 475 418">Level 2 3–4 marks</td> <td data-bbox="475 333 1313 418">A simple argument, which uses and/or evaluates evidence.</td> </tr> <tr> <td data-bbox="308 418 475 566">Level 1 1–2 marks</td> <td data-bbox="475 418 1313 566">A weak answer, which makes some correct reference to evidence but consists of opinion and/or assertion rather than argument or a weak argument which makes no reference to evidence.</td> </tr> <tr> <td data-bbox="308 566 475 651">Level 0 0 marks</td> <td data-bbox="475 566 1313 651">No credit-worthy material.</td> </tr> </table> <p data-bbox="295 689 550 719">Indicative content</p> <ul data-bbox="352 757 1313 1339" style="list-style-type: none"> • Source A shows that there is a correlation between prosperity and height; • it is a reasonable hypothesis that diet is at least part of the reason for this correlation. • Source B gives an alternative interpretation of the facts stated in Source A. • If true, that would suggest that eating “better” is not only a matter of what one can “afford”/not just eating more. • Source C records that “experts” think that improvements in diet may well be all or part of the reason for the increase in height among Japanese children, • but they admittedly “have not agreed”, • which suggests that some may identify other causes. • Source D supports the approximate correlation between “living standards” and height, • although the statistics may have been influenced by recruitment policies. <p data-bbox="295 1346 1289 1413">It is reasonable to guess that improved diet is at least one factor causing the increase in height.</p> <p data-bbox="295 1447 775 1476">Notes for the guidance of markers</p> <p data-bbox="295 1514 695 1581">Simple supported conclusion 1 OR nuanced conclusion 2</p> <p data-bbox="295 1619 1038 1715">+ <u>use</u> of 1 or 2 sources +1 OR <u>use</u> of all or most (3 or more) sources of evidence +2 <i>not just mentioning or summarising or comprehension</i></p> <p data-bbox="295 1753 1114 1783">+ critical evaluation of evidence +1 or (more than one case) +2</p> <p data-bbox="295 1821 1066 1888">+ good inferential reasoning +1 or (more than one case) +2 <i>not speculation</i></p> <p data-bbox="295 1924 584 1953">+ personal thinking +1</p> <p data-bbox="295 1989 376 2018">Max 6</p>	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 a weak argument which makes no reference to evidence.	Level 0 0 marks	No credit-worthy material.	6
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3(a)	<p><i>2 marks:</i> All dogs should be kept on a lead and wear a muzzle when out in public.</p> <p><i>1 mark:</i> Paraphrase of the above, or quotation with significant omission or addition.</p>	2
3(b)	<p><i>1 mark for each of the following, to a maximum of 3 marks:</i></p> <ul style="list-style-type: none"> • Allowing dogs to roam free in public places is dangerous. • Dog owners should take precautions to avoid these problems. • Keeping dogs on a lead is necessary, for the sake of child welfare. • Allowing dogs to roam freely constitutes a risk to public health • Everyone will be safer if all dogs are muzzled whenever they are out in public. <p><i>Allow one additional element or one significant omission in each case. If more than three answers are offered, mark the first four only.</i></p>	3

Question	Answer	Marks
3(c)	<p><i>Marks for each evaluative point as follows, up to a maximum of 5 marks:</i></p> <p><i>2 marks: Valid evaluative point, clearly expressed.</i></p> <p><i>1 mark: Weak attempt at a valid evaluative point.</i></p> <p><i>Paragraph 1</i></p> <ul style="list-style-type: none"> • The author conflates dogs and wolves/assumes that the origin of a species is a guide to its current nature. • The appeal to traditional stories as a source of authority is not persuasive. <p><i>Paragraph 2</i></p> <ul style="list-style-type: none"> • The last sentence is a slippery slope/unrealistic appeal to fear/conflates a frightened or hungry dog being a danger to the public with the “fear of encountering a marauding pack of wild dogs.” <p><i>Paragraph 3</i></p> <ul style="list-style-type: none"> • This paragraph relies on the assumption that protection from being frightened is an aspect of child welfare. • The last sentence of this paragraph is a straw man. <p><i>Paragraph 4</i></p> <ul style="list-style-type: none"> • The adjectives applied to children in the second sentence are an appeal to pity. <i>1 mark only.</i> • Because the risk of toxoplasmosis is described as “rare”, its support for the IC is weak. • The final two sentences do not support the IC, because the author admits that the fleas which may be caught by dogs are not the ones which may be a risk to humans. • Assumption: that dogs which are kept on a lead or wear a muzzle will not catch fleas. <p><i>Paragraph 5</i></p> <ul style="list-style-type: none"> • The first and second sentences conflate being “attacked” with being “permanently injured or even killed”/rely on the assumption that everyone who is attacked by a dog is “permanently injured or even killed”. 	5

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3(d)	<table border="1" data-bbox="309 248 1311 687"> <tr> <td data-bbox="309 248 475 434">Level 3 4–5 marks</td> <td data-bbox="475 248 1311 434">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.</td> </tr> <tr> <td data-bbox="309 434 475 517">Level 2 2–3 marks</td> <td data-bbox="475 434 1311 517">A simple argument. One reason + conclusion – 2 marks. Two or more separate reasons + conclusion – 3 marks.</td> </tr> <tr> <td data-bbox="309 517 475 600">Level 1 1 mark</td> <td data-bbox="475 517 1311 600">Some relevant comment.</td> </tr> <tr> <td data-bbox="309 600 475 687">Level 0 0 marks</td> <td data-bbox="475 600 1311 687">No relevant comment.</td> </tr> </table> <p data-bbox="295 723 1254 786"><i>Maximum 3 marks for wrong conclusion or if conclusion is implied but not stated.</i></p> <p data-bbox="295 790 1066 822"><i>No credit for material merely reproduced from the passage.</i></p> <p data-bbox="295 857 660 889">Specimen level 3 answers</p> <p data-bbox="295 925 564 956"><i>Support (106 words)</i></p> <p data-bbox="295 976 1321 1104">It is discriminatory to treat one species as if it were morally superior to another. We would object strongly if a dog, cat or rabbit were to keep a human as a pet. So it is equally wrong for humans to keep a member of any other species captive.</p> <p data-bbox="295 1108 1311 1236">It is contrary to the nature of animals to be dependent on humans for food and shelter. They have a right to hunt for their own food, choose their own companions and to procreate with a partner of their choice, because doing so is in accordance with their natures.</p> <p data-bbox="295 1240 895 1272">Therefore animals should not be kept as pets.</p> <p data-bbox="295 1308 576 1339"><i>Challenge (79 words)</i></p> <p data-bbox="295 1359 1275 1487">Many elderly people live alone, and yet companionship is a natural human need. By meeting that need, a dog or a cat rescues the elderly person from feeling abandoned in their declining years. So pets fulfil an important social function.</p> <p data-bbox="295 1491 1311 1592">The pets themselves also benefit from the relationship, because they don't need to find food and shelter for themselves, as they would in nature. Instead, they are kept safe, warm and well-fed.</p> <p data-bbox="295 1597 847 1628">Therefore animals should be kept as pets.</p>	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.	5
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