



## Cambridge International AS & A Level

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THINKING SKILLS

9694/21

Paper 2 Critical Thinking

October/November 2021

MARK SCHEME

Maximum Mark: 50

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**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.

Cambridge International will not enter into discussions about these mark schemes.

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This document consists of **11** printed pages.

**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

**GENERIC MARKING PRINCIPLE 1:**

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

**GENERIC MARKING PRINCIPLE 2:**

Marks awarded are always **whole marks** (not half marks, or other fractions).

**GENERIC MARKING PRINCIPLE 3:**

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

**GENERIC MARKING PRINCIPLE 4:**

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

**GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

**GENERIC MARKING PRINCIPLE 6:**

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

**ANNOTATIONS**

	In Qs 1, 3 and 4 use to indicate where marks have been awarded.
	Use to indicate an answer or element that is wrong.
	Not good enough. Use wherever such a judgement has been made.
	Benefit of doubt.
	In Q5 use to indicate creditworthy other argument element. In Q3 use to indicate 'significant additional element'.
	In Qs 2 and 5 use to indicate 'conclusion'.
	In Qs 2 and 5 and in short questions where indicated, use to indicate that marks have been capped because an essential element of the answer is absent.
	In Q2 use to indicate creditworthy evaluation of a source.
	In Q5 use to indicate creditworthy intermediate conclusion.
	In Q2 use to indicate creditworthy personal thinking. In Q3 use to indicate paraphrase.
	In Q2 use to indicate creditworthy inferential reasoning. In Q5 use to indicate creditworthy reason used to support a conclusion.
	In Q2 use to indicate creditworthy use of a source. In Q5 use to indicate distinct strand of reasoning.
	In appropriate cases, use to indicate significant omission. In Q3 use to indicate 'significant omission'.
	Use in answers when no other annotations have been used. Use on blank pages.
<b>Highlight</b>	Use to draw attention to part of an answer.

There must be at least one annotation on each page of the answer booklet.

Question	Answer	Marks
1(a)(i)	<p>Source A is quite credible (neither incredible nor totally credible) [1]. The credibility is strengthened by the reputation [1] and expertise [1] of the polling company. The number of people polled is adequate and should give some ability to know [1]*. But the credibility is reduced by the vested interest (<i>allow bias</i>) of the company issuing the press release to emphasize the aspects of the research favourable to itself [1], in order to increase sales of its products [1]. The statistics are biased, because they refer to only one side of the debate [1].</p> <p><i>Maximum 3 marks if only one side is mentioned. Award judgement mark only if both sides are mentioned.</i></p> <p><i>* Award this mark for favourable reference to sample size even if ability to know is not explicitly mentioned.</i></p>	4
1(a)(ii)	<p>Because these are only the reasons of the group of respondents who stated that they did prefer paper towels [1], the graph does not directly support this claim [1]. The reasons given – if true – are plausibly ones that a majority would agree with [1], so they may give some support to the claim [1]. However, those preferring air dryers might have other equally plausible reasons [1] or believe the opposite, e.g. that dryers dry hands better [1].</p>	3
1(b)(i)	<p><b>Although*</b> the research shows that electric dryers spread bacteria [1], one of the researchers specifically states that these bacteria are unlikely to endanger the health of people with a healthy immune system / because they are found in the environment/air [1]; however, this leaves open the possibility that they may endanger people with a weak immune system [1].</p> <p><i>* Credit this point <b>only</b> if “although” or its equivalent is stated.</i></p>	2
1(b)(ii)	<p>Not very significant (neither significant nor totally insignificant) [1]. The change to paper towels <b>may</b> have been because the university had been persuaded by the research that electric hand dryers posed a health risk [1], in which case it would weaken the researchers’ claim that the dryers were not a health risk [1], but it may just have been a coincidence [1]. The fact that electric hand dryers have been removed only from the washrooms used in the study suggests that the university does not consider the use of hand dryers to pose a serious risk [1] or that perhaps it was a PR gesture to reassure anyone who thought those washrooms were unsafe [1]. If the university had been seriously concerned about health risks arising from electric dryers it would presumably have removed them from all the washrooms [1].</p> <p><i>Award judgement mark only if both sides are mentioned.</i></p>	3
1(c)	<p>The danger in hand dryers consists in being <b>re-infected after</b> washing by bacteria dispersed by the dryers [1]. So washing one’s own hands efficiently does not reduce this risk [1]*.</p> <p><i>*Credit this point <b>only</b> if it is inferred from the previous point.</i></p>	2

Question	Answer	Marks
1(d)	<p><i>2 marks for a correct answer with accurate explanation (3 ticks)</i>  <i>1 mark for a correct answer with vague, incomplete or generic explanation (2 ticks)</i>  <i>0 marks for correct answer without explanation (1 tick)</i>  <i>0 marks for incorrect answer with or without explanation (0 ticks)</i></p> <p><i>2-mark answer (3 ticks)</i></p> <ul style="list-style-type: none"> <li>• Source D is an argument (✓). The first sentence is the conclusion (✓), which is supported by all the remainder of the source (✓).</li> </ul> <p><i>1-mark answers (2 ticks)</i></p> <ul style="list-style-type: none"> <li>• Source D is an argument (✓), because it includes a persuasive conclusion supported by reasons (✓).</li> <li>• Source D is an argument (✓). The first sentence is the conclusion. (✓)</li> </ul> <p><i>0-mark answer (1 tick or 0 ticks)</i></p> <ul style="list-style-type: none"> <li>• Source D is an argument (✓), because it favours one side over the other.</li> </ul>	<b>2</b>

Question	Answer		Marks
2	<b>Conclusion</b>	1 mark for an explicit supported conclusion <i>Cap at 7 if conclusion is absent or implicit</i>	8
	<b>Use of sources</b>	2 marks for use of 3 or 4 sources 1 mark for use of 1 or 2 sources	
	<b>Evaluation of sources</b>	1 mark for each valid evaluation of the credibility or quality of reasoning in sources <i>Maximum 3 marks</i>	
	<b>Inferential reasoning from sources</b>	1 mark each <i>Maximum 3 marks</i> <i>Source must be mentioned for this to be credited</i>	
	<b>Personal thinking</b>	1 mark each <i>Maximum 2 marks</i>	
	<p><b>Annotate answers as follows:</b></p> <p><b>CON</b> To indicate 'conclusion'.</p> <p><b>S</b> To indicate creditworthy use of source.</p> <p><b>EVAL</b> To indicate creditworthy evaluation of source.</p> <p><b>R</b> To indicate creditworthy inferential reasoning.</p> <p><b>P</b> To indicate creditworthy personal thinking.</p> <p><b>C</b> To indicate that mark has been capped.</p>		

Question	Answer	Marks
2	<p><b><i>Indicative content</i></b></p> <ul style="list-style-type: none"> <li>• The survey reported in Source A suggests that a move to paper towels would be popular</li> <li>• and that people have reasons for their preference.</li> <li>• The graph in Source A gives several plausible reasons for favouring paper towels.</li> <li>• Source B shows that electric hand dryers spread bacteria onto the hands of people who use them,</li> <li>• but one researcher, whose reliability is presumably enhanced by expertise,</li> <li>• alleges that these bacteria do not constitute a health hazard.</li> <li>• Source C explains why the risk of bacterial spread may not favour paper towels as much as their supporters claim,</li> <li>• and it also shows that financial considerations favour electric hand dryers.</li> <li>• However, the reliability of Source C is compromised by vested interest.</li> <li>• Source D criticises the use of paper towels on environmental grounds,</li> <li>• but its reliability is compromised by vested interest, because the article is ‘sponsored’, presumably by makers or suppliers of electric hand dryers;</li> <li>• the bias also reveals itself in poor reasoning, e.g. counting the loss of trees despite admitting that most towels are made from recycled paper.</li> </ul>	

Question	Answer	Marks
<p><b>In Q3, annotate as follows:</b></p> <p><b>AE</b> Significant additional element</p> <p><b>^</b> Significant omission</p> <p><b>P</b> Paraphrase</p> <p><i>In Q3(a), (c)(i) and (c)(ii), if two answers are given, one of which is correct, award 1 mark.</i></p> <p><i>In all parts of Q3, apply guidance relating to additional material <b>only</b> if it constitutes an additional part of an answer or an alternative answer.</i></p>		
3(a)	<p><i>2 marks for an exact answer</i> <i>1 mark for a paraphrase, or for <b>one</b> additional element or omission</i></p> <p>(The word ‘workaholic’ is commonly used to suggest that some people are addicted to work,) (but) we should avoid using this word [the word ‘workaholic’].</p>	<b>2</b>
3(b)	<p><i>For up to 2 of the following:</i> <i>2 marks for an exact answer</i> <i>1 mark for a paraphrase, or for <b>one</b> additional element or omission</i></p> <ul style="list-style-type: none"> <li>• (because) it trivialises this problem.</li> <li>• Describing such people as workaholics does not help them,</li> <li>• Mocking people who dedicate all of their time and energies to work is socially irresponsible.</li> </ul>	<b>4</b>
3(c)(i)	An example <b>[1]</b> illustrating the type of psychological problems someone who is described as a workaholic may have <b>[1]</b> .	<b>2</b>
3(c)(ii)	A reason <b>[1]</b> supporting the intermediate conclusion ‘people who work in those jobs should not be criticized for giving them priority.’ <b>[1]</b>	<b>2</b>

Question	Answer	Marks
<i>Throughout question 4, award judgement mark <b>only</b> if the judgement is supported.</i>		
4(a)	It is greatly weakened [1]. The justification of work is based on 'earning one's own living by work', whereas the IC refers to 'people who dedicate all of their time and energies to work' [1], which is much stronger [1]. Only the stronger expression supports the main conclusion [1].	3
4(b)(i)	The analogy is fairly effective [1], because in both cases beneficiaries are criticising the generosity which benefits them [1], which precisely supports the claim that such criticisms are 'ironic and unfair' [1]. Unlike partners and children of those who work long hours, however, beggars do not experience the negative consequences of the donors' generosity / do not desire a relationship with the donor [1].	3
4(b)(ii)	<p>The claim about 'some parents' is insufficient to support the claim in the first sentence that any criticism of parents for being workaholics is 'ironic and unfair' [1]. So in turn this weakness significantly reduces the support given by this paragraph to the main conclusion [1]. This is a rash generalization [1].</p> <p><i>Or</i></p> <p>The reasoning relies on the questionable assumption that money, rather than parental time, is needed in order to be able to provide children with 'experiences and opportunities' [1] and thereby seriously undermines the claim that parents need to work very long hours [1].</p> <p><i>Or</i></p> <p>The claim that spouses and children should not complain if parents work for long hours is inconsistent with the claim in paragraph 1 that excessive work destroys relationships [1]. This significantly weakens the support for the main conclusion given in para 1 [1].</p> <p><i>Allow for 1 mark any of these points expressed as a counter.</i></p>	2

Question	Answer		Marks								
5	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><b>Reasons</b></td> <td>2 marks for three or more reasons supporting conclusions 1 mark for one or two reasons supporting conclusions</td> </tr> <tr> <td><b>Inferential reasoning</b></td> <td>1 mark for each use of an intermediate conclusion or chain of intermediate conclusions <i>(including if used in response to a counter)</i> <i>Maximum 3 marks</i></td> </tr> <tr> <td><b>Argument elements</b></td> <td>1 mark for each use of other argument elements that strengthens the reasoning: counter with response, example, evidence, analogy, hypothetical reasoning <i>Credit each type only once per strand of reasoning</i> <i>Maximum 3 marks</i></td> </tr> <tr> <td><b>Structure</b></td> <td>1 mark for two or more distinct strands of reasoning</td> </tr> </table>		<b>Reasons</b>	2 marks for three or more reasons supporting conclusions 1 mark for one or two reasons supporting conclusions	<b>Inferential reasoning</b>	1 mark for each use of an intermediate conclusion or chain of intermediate conclusions <i>(including if used in response to a counter)</i> <i>Maximum 3 marks</i>	<b>Argument elements</b>	1 mark for each use of other argument elements that strengthens the reasoning: counter with response, example, evidence, analogy, hypothetical reasoning <i>Credit each type only once per strand of reasoning</i> <i>Maximum 3 marks</i>	<b>Structure</b>	1 mark for two or more distinct strands of reasoning	8
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<p><i>Each component of a candidate response may score only once. Where there is more than one possibility, use the classification which leads to the higher total mark.</i></p> <p><i>Maximum 6 marks for no conclusion or wrong conclusion, or a conclusion that does not follow from the reasoning, or if both sides are argued without a resolution.</i></p> <p><i>0 marks for answer unrelated to the claim given.</i> <i>No credit for material merely reproduced from the passage.</i></p> <p><b>Annotate answers as follows:</b></p> <p><b>CON</b> To indicate main conclusion.</p> <p><b>R</b> To indicate creditworthy reason used to support a conclusion.</p> <p><b>I</b> To indicate creditworthy intermediate conclusion.</p> <p><b>AE</b> To indicate creditworthy other argument element.</p> <p><b>S</b> To indicate distinct strand of reasoning.</p> <p><b>E</b> To indicate that mark has been capped.</p> <p><b>X</b> To indicate material that is judged not to have a structural function in the argument.</p> <p>Use <b>highlighter</b> to indicate material which is not relevant to the stated claim.</p>											

Question	Answer	Marks
5	<p><b>Example 8-mark answers</b></p> <p><i>Support (134 words)</i></p> <p>If people allow their work role to become their identity, it impoverishes their personality, because everyone has some qualities which are not displayed or developed at work. For the sake of their psychological health, therefore, everyone needs opportunities to follow their own inclinations without any external constraints and to be known as rounded persons.</p> <p>Very few people are talented enough to be able to earn their living at such activities as sport or music, but it is activities like those which raise the life of society above the mundane. It is therefore important for the health of the community that amateurs should have sufficient leisure to enable them to participate in those activities themselves and to support and admire those who excel in them.</p> <p>Therefore everyone should make time in their life for leisure.</p> <p><i>Challenge (170 words)</i></p> <p>The suggestion that everyone should make time in their life for leisure is unrealistic. Most people over history have had to work through all the hours of daylight in order to feed and house themselves and their family, and in the absence of artificial light they have slept throughout the hours of darkness; many millions of people today are in the same position. Advising such people how to use their free time would be as impractical as suggesting what they should do with their spare money, because they do not have either.</p> <p>Many people, such as parents of dependent children, rightly have various higher priorities than leisure. The demands of work and childcare leave little time for leisure, while other people have responsibility for the care of elderly relatives or may be involved in charitable activities. Because leisure pursuits are generally quite expensive, they are a luxury which only those in middle age or older are able to afford.</p> <p>Therefore not everyone should make time in their life for leisure.</p> <p><i>Acceptable ‘challenge’ conclusions:</i></p> <ul style="list-style-type: none"> <li>• Not everyone should make time in their life for leisure.</li> <li>• Only some people should make time in their life for leisure.</li> <li>• Everyone should not make time in their life for leisure.</li> <li>• I do not agree that everyone should make time in their life for leisure.</li> </ul>	