



## **Cambridge International AS & A Level**

---

**THINKING SKILLS**

**9694/22**

Paper 2 Critical Thinking

**October/November 2022**

**MARK SCHEME**

Maximum Mark: 50

---

**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.

Cambridge International is publishing the mark schemes for the October/November 2022 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

---

This document consists of **12** 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 judgment 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)	<p><i>2 marks for a correct answer with accurate explanation</i>  <i>1 mark for a correct answer with vague, incomplete or generic explanation</i>  <i>0 marks for a correct answer without explanation</i>  <i>0 marks for an incorrect answer with or without explanation</i></p> <p><i>2-mark answer</i>            Source A is not an argument ✓. It provides reasoning which would support a conclusion that wolves should be reintroduced into Scotland ✓, but this conclusion is not stated ✓.</p> <p><i>or</i>            Source A is not an argument ✓. It contains information about the proposal to reintroduce wolves to Scotland ✓. There is no (supported, persuasive) conclusion stated ✓.</p> <p><i>1-mark answers</i>            Source A is not an argument ✓, because it does not include a (supported, persuasive) conclusion ✓.            Source A is not an argument ✓. It merely contains information ✓.</p> <p><i>0-mark answer</i>            Source A is not an argument ✓. It does not contain two opposing points of view.</p>	2
1(b)	<p>There is only some support provided (neither full support nor none) [1]. Source C does show that quite a lot of sheep were killed by wolves [1], but we can't interpret the significance of this number without knowing the total number of sheep in Norway [1]. It says that the farmers received compensation, which suggests that this would be likely to happen in Scotland too [1], but there is no indication of how satisfactory this compensation is likely to be [1]. It does suggest that the presence of wolves might be driving farmers out of the business [1], and the same could plausibly happen in Scotland [1]. However, there may be significant differences between the two countries [1] – for example, if the wolves in Norway are not confined to fenced-off areas, and/or little sheep farming were to take place within the Scottish fenced-off areas [1].</p> <p><i>Cap at 3 marks if only one side given.</i>  <i>Credit judgment only if both sides are supported.</i></p>	4

Question	Answer	Marks
1(c)	<p><i>Up to 2 marks from the following</i></p> <p>Although on the face of it a fence would reduce the absolute level of access [1], how significant this was would depend on how many gates there were [1], where they were located [1], and what the current pattern of access is [1].</p> <p><i>Up to 2 marks each for an explanation of how one (or more) of these factors could significantly reduce or not reduce the level of access, for example:</i></p> <ul style="list-style-type: none"> <li>• Walkers might have to travel a long way to enter the area [1] and walking routes would be limited by needing to begin and end at a gate [1].</li> <li>• If the vast majority enter the area from a limited number of starting points, then a few gates in strategic places would allow a similar level of access [1]; but if many walkers roam freely across all parts of the boundary, then there would need to be many gates at close intervals in order to avoid a significant reduction in the level of access [1].</li> </ul> <p><i>No mark for judgment.</i></p>	4
1(d)	<p>Source E has some credibility (neither completely credible nor completely devoid of credibility) [1]. The author clearly has <b>expertise</b> / experience in the general area of sheep-farming [1], and he has the <b>ability to see</b> the damage caused by red deer [1]. However, he probably does not have any <b>expertise</b> in the wider issues associated with reintroduction of species [1]. Given his occupation, he is <b>biased</b> against recognising any of the potential benefits of reintroducing wolves [1], focusing only on the potential problems [1]. The suggestion that wolves would pose a threat to sheep is plausible [1], and the author offers a plausible alternative for the problem of controlling deer populations, namely, using professional marksmen to shoot them [1].</p> <p><i>Cap at 3 marks if only one side given.</i> <i>Credit judgment only if both sides are supported.</i></p>	4

Question	Answer	Marks										
2	<table border="1" data-bbox="304 244 1318 808"> <tr> <td data-bbox="304 244 549 344"><b>Conclusion</b></td> <td data-bbox="549 244 1318 344">1 mark for an explicit supported conclusion <i>Cap at 7 if conclusion is absent or implicit</i></td> </tr> <tr> <td data-bbox="304 344 549 445"><b>Use of sources</b></td> <td data-bbox="549 344 1318 445">2 marks for use of 4 or 5 sources 1 mark for use of at least 1 source</td> </tr> <tr> <td data-bbox="304 445 549 577"><b>Evaluation of sources</b></td> <td data-bbox="549 445 1318 577">1 mark for each valid evaluation of the credibility or quality of reasoning in sources <i>Maximum 3 marks</i></td> </tr> <tr> <td data-bbox="304 577 549 710"><b>Inferential reasoning from sources</b></td> <td data-bbox="549 577 1318 710">1 mark each <i>Maximum 3 marks</i></td> </tr> <tr> <td data-bbox="304 710 549 808"><b>Personal thinking</b></td> <td data-bbox="549 710 1318 808">1 mark each <i>Maximum 2 marks</i></td> </tr> </table> <p data-bbox="304 842 724 875"><b>Annotate answers as follows:</b></p> <p data-bbox="304 909 718 943"><b>CON</b> To indicate 'conclusion'.</p> <p data-bbox="304 976 908 1010"><b>S</b> To indicate creditworthy use of source.</p> <p data-bbox="304 1043 994 1077"><b>EVAL</b> To indicate creditworthy evaluation of source.</p> <p data-bbox="304 1111 994 1144"><b>R</b> To indicate creditworthy inferential reasoning.</p> <p data-bbox="304 1178 954 1211"><b>P</b> To indicate creditworthy personal thinking.</p> <p data-bbox="304 1245 922 1279"><b>E</b> To indicate that mark has been capped.</p> <p data-bbox="304 1346 563 1379"><b>Indicative content</b></p> <ul data-bbox="304 1413 1310 1962" style="list-style-type: none"> <li>• Source A gives the background to the proposal and the rationale, that wolves would help control the deer population.</li> <li>• Source B provides some more, research-based, information on the proposal,</li> <li>• as well as highlighting the safety and public acceptability advantages of fencing off areas where wolves are to be reintroduced.</li> <li>• Source C uses recent data from Norway to support the claim that wolves are a threat to sheep farmers,</li> <li>• but this data doesn't provide quite as much support as intended.</li> <li>• Source D approaches the issue from the (vested interest) perspective of rambles,</li> <li>• with the main objection focussing on the 'right to roam' enshrined in Scottish law.</li> <li>• Source E displays the view of a hill farmer who sees the potential reintroduction of wolves as a threat to his industry.</li> <li>• He has expertise in sheep-farming,</li> </ul>	<b>Conclusion</b>	1 mark for an explicit supported conclusion <i>Cap at 7 if conclusion is absent or implicit</i>	<b>Use of sources</b>	2 marks for use of 4 or 5 sources 1 mark for use of at least 1 source	<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>	<b>Personal thinking</b>	1 mark each <i>Maximum 2 marks</i>	8
<b>Conclusion</b>	1 mark for an explicit supported conclusion <i>Cap at 7 if conclusion is absent or implicit</i>											
<b>Use of sources</b>	2 marks for use of 4 or 5 sources 1 mark for use of at least 1 source											
<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>											
<b>Personal thinking</b>	1 mark each <i>Maximum 2 marks</i>											

Question	Answer	Marks
2	<ul style="list-style-type: none"> <li>• but his letter is cast in emotive language based on bias against reintroducing wolves.</li> <li>• However, he offers a possible alternative solution to problems posed by red deer, i.e., using marksmen rather than wolves to limit numbers.</li> <li>• In general, the environmental and ecological advantages are highlighted by Sources A and B,</li> <li>• while the other three sources raise questions that need to be addressed if public opinion is to swing behind the proposal.</li> </ul> <p><b>Example 8-mark answer 230 words</b></p> <p>Sources A and B agree that reintroducing wolves to Scotland would aid regeneration of woodlands. Source A explains how herds of red deer overgraze tree-seedlings, and how this could be prevented if wolves were present to keep herds of deer more mobile. By comparing the density of deer in affected areas to the density of wolves needed to achieve the desired aim, Source B – extracted from a university website and likely to be based on expertise in the topic – shows that a relatively low number would be needed.</p> <p>However, Source C refers to a recent study conducted in Norway showing how wolves can cause heavy losses to sheep farmers. Clearly, when wolves are present in an area, their predation is not limited to one species. The concerns expressed in this source are emphasised strongly by Source E, the author of which clearly has expertise in sheep farming, and who states clearly the proposal’s possible implications for his industry. Proposals to confine the wolves to fenced-off areas have also met with opposition from recreational walkers, as described in Source D, although such walkers clearly have a vested interest to oppose anything that reduces their unrestricted access to the countryside.</p> <p>Regardless of the environmental considerations, people in the affected areas should have due consideration given to their views. This has yet to happen.</p> <p>At present, wolves should not be reintroduced to Scotland.</p>	

Question	Answer	Marks
<p><i>In Q3, annotate as follows:</i></p> <p><b>AE</b> Significant additional element  <b>A</b> Significant omission  <b>P</b> Paraphrase</p> <p><i>In Q3(a), (c) and (d), 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>2 marks for an exact answer  1 mark for a paraphrase, or for <b>one</b> additional element or omission</p> <p>(However,) people should be discouraged from keeping exotic pets.</p>	<b>2</b>
3(b)	<p>For up to 2 of the following:  2 marks for an exact answer  1 mark for a paraphrase, or for <b>one</b> additional element or omission  If more than two answers given, mark the first three only</p> <ul style="list-style-type: none"> <li>• People very often underestimate the risks posed by exotic pets.</li> <li>• (so) this poor treatment is clearly viewed as a serious problem by the international community</li> <li>• (and) action should be taken.</li> <li>• The people who buy animals obtained in this way should be held responsible for the suffering these animals endure.</li> </ul> <p>1 mark if second and third ICs given together as one</p>	<b>4</b>
3(c)	<p>A reason <b>[1]</b> supporting the intermediate conclusion ‘it is not surprising that animals’ needs are often neglected.’ <b>[1]</b>.</p> <p>Allow ... supporting the claim that ‘people should be discouraged from keeping exotic pets.’ <b>[1]</b>.</p>	<b>2</b>
3(d)	<p>2 marks for an exact version of any of the following  1 mark for an incomplete or vague version of any of the following</p> <ul style="list-style-type: none"> <li>• That there wasn’t some other reason why these countries signed the agreement other than that they view the issue as a serious problem.</li> <li>• If something is viewed as a serious problem by the international community, then action should be taken.</li> <li>• Responsibility for the suffering endured by seized animals does not lie solely with the people seizing and smuggling the animals.</li> <li>• Purchasing something makes the buyer (at least partly) responsible for any harm done by the way in which it is procured.</li> <li>• It is possible to ascertain how any particular pet was obtained.</li> </ul>	<b>2</b>

Question	Answer	Marks
4(a)	There is a causal flaw ( <i>cum/post hoc</i> ) present [1]. The claim is made that rising levels of publicity on social media websites about exotic pets and the greater ease of buying them via e-commerce, both of which coincided with (or preceded) the increased popularity of keeping exotic pets, must have caused the increase [1]. However, the rise could have been caused by different factors / there is no evidence of a causal relationship [1].	3
4(b)	<p>2 marks for a clearly expressed objection. 1 mark for a vague or incomplete objection.</p> <p><i>For example:</i></p> <p>The claim made about the risks posed to people by exotic pets could just as easily be made about more common pets. Every year, many people are 'scratched or bitten' by non-exotic pets (e.g., cats and dogs).</p> <p>OR</p> <p>It is not stated that all exotic pets are dangerous, so it may be safe to keep some species.</p>	2
4(c)	<p>The number of countries cited as having signed the agreement is an appeal to <b>popularity</b> [1]. It is a relevant appeal, because it does support the author's conclusion that the issue is viewed as a serious problem by the international community [1].</p> <p>OR</p> <p>The fact this is an international agreement (presumably signed by senior government figures across the world) is an appeal to <b>authority</b> [1]. It is a relevant appeal because governments have the right to make such a decision, and their widespread endorsement of this agreement supports the author's conclusion that action should be taken [1].</p> <p>OR</p> <p>The language used to describe the sufferings of smuggled animals is an appeal to <b>emotion</b> (pity) [1]. It is a relevant appeal because animal suffering is a morally relevant issue [1].</p>	2
4(d)	<p><i>Award up to 3 marks from any of the following:</i></p> <ul style="list-style-type: none"> <li>• There is a rash generalisation [1] from two examples to 'many species' [1].</li> <li>• The argument follows a slippery slope [1], from two examples of declining species to 'devastating effects on the planet's ecosystems' [1].</li> <li>• A dramatic decline in population does not necessarily mean that a species is on the path to extinction [1]. It may even be necessary in some cases for the general health of the population [1].</li> <li>• The number of species is conflated with the planet's ecosystems [1].</li> <li>• We don't know if the two examples of decline given were caused by the seizing of wild animals for the exotic pet trade [1], so there is inadequate support for the conclusion in the last sentence [1].</li> </ul>	3

Question	Answer		Marks
5	<b>Reasons</b>	2 marks for three or more reasons supporting conclusions 1 mark for one or two reasons supporting conclusions	8
	<b>Inferential reasoning</b>	1 mark for each use of an intermediate conclusion or chain of intermediate conclusions <i>(including if used in a 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	
<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><span style="border: 1px solid red; padding: 0 2px;">CON</span> To indicate main conclusion.</p>			
<p><span style="border: 1px solid red; padding: 0 2px;">R</span> To indicate creditworthy reason used to support a conclusion.</p>			
<p><span style="border: 1px solid red; padding: 0 2px;">I</span> To indicate creditworthy intermediate conclusion.</p>			
<p><span style="border: 1px solid red; padding: 0 2px;">AE</span> To indicate creditworthy other argument element.</p>			
<p><span style="border: 1px solid red; padding: 0 2px;">S</span> To indicate second distinct strand of reasoning.</p>			
<p><span style="border: 1px solid red; padding: 0 2px;">C</span> To indicate that mark has been capped.</p>			

Question	Answer	Marks
5	<p><b>Example 8-mark answers</b></p> <p><i>Support (155 words)</i></p> <p>Every year, people are injured by family pets, for example, scratched by cats or bitten by dogs. So there is a risk – not only to family members, but also to other members of the public – that could be managed better. At present, except for prosecutions of owners for serious injuries caused by dangerous dogs, pet owners have little incentive to address this problem; hence, there is a need to inculcate more of a sense of responsibility among them for how their animals behave.</p> <p>If they will not voluntarily accept this responsibility, then the law must force them to do it. Just as the introduction of mandatory speed limits (and penalties for breaking these) forced motorists to slow down, it follows that pet owners' reluctance to control how their animals behave would justify legislating for this to be compelled.</p> <p>Pet owners should be legally responsible for all of the damage or harm caused by their animals.</p> <p><i>Challenge (138 words)</i></p> <p>Pet owners should not be legally responsible for all of the damage or harm caused by their animals.</p> <p>With few exceptions – for instance, keeping dogs on leads when outside – it is unrealistic for owners to be expected to determine how their pets behave, so it would be unfair to penalise them for harm or damage caused by their animals.</p> <p>High-profile cases of major injury understandably result in public calls for action; however, tougher legislation is unnecessary, because incidences of serious injury caused by pets are very rare indeed. Most injuries are fairly minor.</p>	

Question	Answer	Marks
5	<p>Experts <b>AE</b> accept that keeping animals can often be beneficial to lonely or elderly <b>I</b> people. Introducing legal <b>R</b> responsibility for the actions of these animals would inevitably discourage people from being pet owners, hence the benefits to vulnerable adults of keeping pets would not be fully realised.</p> <p><i>Acceptable 'challenge' conclusions:</i></p> <ul style="list-style-type: none"><li>• Pet owners should not be legally responsible for all of the damage or harm caused by their animals.</li><li>• Pet owners should only be legally responsible for some of the damage or harm caused by their animals.</li><li>• Pet owners should not be legally responsible for any of the damage or harm caused by their animals.</li></ul>	