



## Cambridge International AS & A Level

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THINKING SKILLS

9694/22

Paper 2 Critical Thinking

October/November 2020

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 **10** 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. In questions where responses are undeveloped or developed (as defined within the scheme), use 1 tick for undeveloped and 2 ticks for developed.
	Use to indicate an element of an answer that looks as though it should be credited but is in fact wrong.
	In Qs 2 and 5 use to indicate “conclusion”. Use twice to indicate nuanced conclusion in q 2.
	In Qs 2 and 5 use to indicate creditworthy intermediate conclusion.
	In Qs 2 and 5 use to indicate creditworthy appropriate argument element.
	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 source.
	In Q2 use to indicate creditworthy evaluation of source.
	In Q2 use to indicate creditworthy personal thinking.
	In appropriate cases, use to indicate significant omission.
	Not good enough.
	Benefit of doubt.
	Use in answers when no other annotations have been used. Use on blank pages. In appropriate cases, use to indicate answers which appear as if they might deserve credit but are incorrect or irrelevant.
<b>Highlight</b>	Use to indicate answers which are not being considered. Where helpful, use to identify the part of the answer to which another stamp pertains.

Question	Answer	Marks
1(a)(i)	They should have the expertise to give evidence about the environmental impact of using wood pellets.	1
1(a)(ii)	They may have a vested interest ( <i>accept</i> bias) to defend wood pellets as a green source of energy.	1
1(b)(i)	Working forests in the USA are not threatened with deforestation.	1
1(b)(ii)	<p>The statistics are only applicable to the south-eastern USA [1] but the conclusion is about the whole of the USA [1] / it is possible that other areas are suffering significant deforestation [1].</p> <p>The statistics are about wood growth only / no statistics are given about the number of trees which have been cut down [1]. It is possible that the number of trees cut down is significantly larger than 112% [1], in which case there could still be a problem of deforestation [1].</p> <p>The meaning of ‘annual wood growth’ is unclear [1]. We don’t know, e.g. if this growth is taking place in ‘working forests’ [1], or if the growth has occurred in the type of trees that would be used for making wood pellets [1], etc.</p> <p>This conclusion is drawn on the basis of figures that apply before there was a demand for wood pellets [1]. Given the evidence about future demand for wood pellets it is possible that these forests will in fact suffer from deforestation in the future [1].</p>	2
1(c)	<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 C is an argument. The conclusion is ‘this may not be the case’ / is the second sentence. The following sentences provide reasons (and an IC) to support this conclusion.</p> <p><i>1-mark answers</i>            Source C is an argument, because it consists of a persuasive conclusion supported by reasoning.            Source C is an argument. The conclusion is ‘this may not be the case’ / is the second sentence.            Source C is an argument. The conclusion is the final sentence, supported by.....</p> <p><i>0 mark answer</i>            Source C is an argument. The conclusion is the final sentence.</p>	2
1(d)	Not strong [1]. Clearing these forests to plant other trees before the demand for wood pellets would not have been commercially viable [1]. The point the passage is making is that the demand for wood pellets creates a situation where clearing these forests may become a commercially viable operation [1].	3

Question	Answer	Marks
1(e)	<p><i>2 marks each for up to two valid, developed points 1 mark for vague or undeveloped point</i></p> <p><i>For example,</i></p> <ul style="list-style-type: none"> <li>• The EU may have ample wood supplies [1]. This would mean wood as an energy source was readily available [1].</li> <li>• The EU may have plentiful supplies of wood with a short carbon pay-back period [1]. This would increase the credibility of wood as a carbon-neutral energy source [1].</li> <li>• Vested interests may have affected the decisions to use wood/define wood as a renewable source of energy [1]. Countries with large supplies of wood may have been in the most influential position when decisions were made [1].</li> <li>• Other sources of renewable energy might be expensive to set up and run [1], whereas wood power could be cheaper to obtain [1] (e.g. by converting coal-fired power stations.)</li> <li>• <i>Anything referring to the paucity/reliability of other clean power sources, e.g. The EU may not be very windy/sunny/tidal [1], whereas wood is plentiful [1].</i></li> </ul>	4

Question	Answer		Marks
2	<b>Use of sources</b>	2 marks: accurate use of 4 or 5 of the sources provided 1 mark: accurate use of 1-3 of the sources provided 0 marks: no accurate use of sources	8
	<b>Evaluation of sources and/or inferential reasoning from sources</b>	Up to 2 marks for evaluation of sources Up to 2 marks for inferential reasoning <i>These marks can be combined to a maximum of 3</i>	
	<b>Supported conclusion</b>	2 marks: nuanced (e.g. balanced or qualified) supported conclusion 1 mark: simple supported conclusion 0 marks: conclusion unstated or unsupported	
	<b>Argument elements</b>	Up to 2 marks for use of intermediate conclusion and/or other argument elements Up to 2 marks for personal thinking <i>These marks can be combined to a maximum of 3</i>	
<b>Indicative content</b>			
<ul style="list-style-type: none"> <li>• Source A suggests wood pellets are a renewable source and explains how they can be viewed as a renewable source.</li> <li>• Source A also suggests burning wood pellets causes fewer emissions.</li> <li>• However, other sources question both these points.</li> <li>• Source B supports the notion that burning wood is a 'green' form of energy.</li> <li>• However, it is from a source with a vested interest.</li> <li>• The point about deforestation is not well supported by the statistical evidence.</li> <li>• The point about using wood that is not commercially valuable does not address the point in Source D about the use of ecologically valuable trees.</li> <li>• Source C casts serious doubts on the idea that CO<sub>2</sub> will be reabsorbed by planting more trees in time to combat global warming.</li> <li>• It also questions the idea, in Source A, that burning wood always causes low levels of emissions.</li> <li>• Source D suggests there are considerable environmental threats if wood becomes a dominant source of energy, even if it does help to combat global warming.</li> <li>• However, on the issue of global warming as such, this may be a price worth paying if it is a genuinely renewable resource.</li> <li>• Source E shows that burning wood is the dominant form of renewable energy in the EU.</li> <li>• However, it also reinforces the point about the length of time before CO<sub>2</sub> is absorbed back from the atmosphere, a rate that is too slow to have an effect on combating global warming.</li> </ul>			

Question	Answer	Marks
2	<p><b>Annotate answers as follows:</b></p> <p><b>C</b> To indicate 'conclusion'. Use twice to indicate nuanced 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>I</b> To indicate creditworthy intermediate conclusion.</p> <p><b>AE</b> To indicate creditworthy appropriate argument element.</p>	

Question	Answer	Marks
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>this is regrettable.</p>	2
3(b)	<p>For up to 3 of the following: 2 marks for an exact answer 1 mark for a paraphrase, or for <b>one</b> additional element or omission</p> <ul style="list-style-type: none"> <li>• This adult craving for excitement represents a failure to grow up.</li> <li>• (So) leisure involving such activities is a preparation for work, (not an escape from it).</li> <li>• Many areas of natural beauty are threatened by this search for excitement.</li> <li>• (So) encouraging these activities increases the workload of health professionals.</li> <li>• (So) we must (instead) strive to produce a society where such stresses no longer occur.</li> <li>• If we want to preserve the beauty of these areas, we must leave them to the hikers and walkers.</li> </ul> <p>If more than three answers are offered, mark the first four only.</p>	6
3(c)	<p>2 marks for an exact version of the following 1 mark for an incomplete or vague version of the following</p> <ul style="list-style-type: none"> <li>• Hikers and walkers do not threaten areas of natural beauty.</li> <li>• Preservation of the beauty of unspoilt areas is incompatible with installing ski lifts or zip wires.</li> <li>• All exciting activities involve installing unsightly equipment / will threaten areas of natural beauty.</li> <li>• Adrenaline junkies will not preserve areas of natural beauty.</li> </ul>	2

Question	Answer	Marks
3(d)	An example [1] of ways in which the search for excitement threatens areas of natural beauty [1]. OR Evidence [1] that the search for excitement threatens areas of natural beauty [1].	2

Question	Answer	Marks
4(a)	<ul style="list-style-type: none"> <li>• Rather than being a ‘failure to grow up’, using adrenalin-producing activities seems to be a necessary part of being an adult in modern society in the reasoning in paragraph 2.</li> <li>• The author suggests that the search for excitement is a product of job insecurity of the last 15 years, but the age groups cited would have been working for a long time during the period when having a ‘job for life’ was common.</li> </ul> <p><i>2 marks for a clear identification of inconsistency. 1 mark for adequate identification of inconsistent point in paragraph 1 or 2 without clear contrast to the other paragraph.</i></p>	2
4(b)	<p><i>2 marks for a valid answer, clearly expressed. 1 mark for a weak attempt at a valid answer.</i></p> <ul style="list-style-type: none"> <li>• <i>Reliance on questionable assumption</i> – that the sole or main type of risk is physical risk.</li> <li>• <i>Reliance on questionable assumption</i> – that the possible health benefits / benefits for health resources of these activities do not outweigh the costs.</li> </ul>	2
4(c)(i)	<p>The reasoning in paragraph 5 relies on the dichotomy whereby either we ‘have to rely on these adrenalin rushes to cope with life’ or we ‘must strive to produce a society where such stresses no longer occur’ [1], but there are likely to be other possibilities [1].</p> <p><i>Maximum 1 mark if only one side of the dichotomy is identified.</i></p>	2
4(c)(ii)	<p>This flaw invalidates the IC in paragraph 5 [1], but it does not greatly weaken the argument as a whole, because this IC gives little direct support to the MC [1]. The paragraph could support a different IC that would better support the MC [1].</p> <p><i>No mark for judgement.</i></p>	2



Question	Answer		Marks								
5	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><b>Supported conclusion</b></td> <td>1 mark for a precise, supported conclusion that meets the requirement of the question.</td> </tr> <tr> <td><b>Reasons</b></td> <td>1 mark for each use of a reason supporting a conclusion, up to a maximum of 3.</td> </tr> <tr> <td><b>Inferential reasoning</b></td> <td>1 mark for each use of an intermediate conclusion, up to a maximum of 3.</td> </tr> <tr> <td><b>Argument elements</b></td> <td>1 mark for each use of appropriate argument elements (counter with response, example, evidence, analogy, hypothetical reasoning), up to a maximum of 3.</td> </tr> </table>		<b>Supported conclusion</b>	1 mark for a precise, supported conclusion that meets the requirement of the question.	<b>Reasons</b>	1 mark for each use of a reason supporting a conclusion, up to a maximum of 3.	<b>Inferential reasoning</b>	1 mark for each use of an intermediate conclusion, up to a maximum of 3.	<b>Argument elements</b>	1 mark for each use of appropriate argument elements (counter with response, example, evidence, analogy, hypothetical reasoning), up to a maximum of 3.	8
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<b>Argument elements</b>	1 mark for each use of appropriate argument elements (counter with response, example, evidence, analogy, hypothetical reasoning), up to a maximum of 3.										
<p><i>Maximum 6 marks for wrong conclusion or if conclusion is implied but not stated.</i></p> <p><i>0 marks for answer unrelated to the claim given.</i></p> <p><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: 2px;">C</span> To indicate main conclusion.</p> <p><span style="border: 1px solid red; padding: 2px;">I</span> To indicate creditworthy intermediate conclusion.</p> <p><span style="border: 1px solid red; padding: 2px;">R</span> To indicate creditworthy reason used to support a conclusion.</p> <p><span style="border: 1px solid red; padding: 2px;">AE</span> To indicate creditworthy appropriate argument element.</p> <p><b>Example 8-mark answers</b></p> <p><i>Support (139 words)</i></p> <p>Children have a short attention span and unless they find something exciting they will not concentrate on what is happening. If school is boring then little will be learnt because their minds will be elsewhere, probably on when the bell will ring to end the day. Given that the main purpose of schooling is to learn, schooling that is not exciting will fail to achieve this main purpose – the time and money society spends on education will have been wasted.</p> <p>But it is not only society that will be negatively affected. Many children will fail to achieve their full potential meaning their lives will be boring and less fulfilled. So being bored at school is not just a temporary phase – it will set the pattern for the child’s entire life.</p> <p>So school should be an exciting experience for pupils.</p>											

Question	Answer	Marks
5	<p><i>Challenge (156 words)</i></p> <p>School is about preparation for life and equipping children with the attitudes and skills they will need in adulthood. A key lesson is that many aspects of life are boring and that maturity involves being able to complete tasks which one does not like. If school is always exciting it panders to a childish need to be excited rather than preparing children for the realities of life. School will have failed in its central purpose and the time and money spent on education will have been wasted.</p> <p>Children will grow up to be adults who are never contented and this inability to face up to the realities of life is likely to lead to mental illness. As well as being a problem for the individual, this will put a burden on health services meaning less money to spend on education and other services provided by society.</p> <p>So school should not be an exciting experience for pupils.</p>	