



## Cambridge International AS & A Level

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**SUBJECT**

**9694/23**

Paper 2 Critical Thinking

**May/June 2020**

**MARK SCHEME**

Maximum Mark: 50

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**Published**

Students did not sit exam papers in the June 2020 series due to the Covid-19 global pandemic.

This mark scheme is published to support teachers and students and should be read together with the question paper. It shows the requirements of the exam. The answer column of the mark scheme shows the proposed basis on which Examiners would award marks for this exam. Where appropriate, this column also provides the most likely acceptable alternative responses expected from students. Examiners usually review the mark scheme after they have seen student responses and update the mark scheme if appropriate. In the June series, Examiners were unable to consider the acceptability of alternative responses, as there were no student responses to consider.

Mark schemes should usually be read together with the Principal Examiner Report for Teachers. However, because students did not sit exam papers, there is no Principal Examiner Report for Teachers for the June 2020 series.

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

Cambridge International is publishing the mark schemes for the June 2020 series for most Cambridge IGCSE™ and Cambridge International A & AS Level components, and some Cambridge O Level components.

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This document consists of **9** 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)	Neither reliable nor unreliable [1]. The private health clinic has expertise in healthcare, increasing its reliability [1], but also a vested interest to persuade people to buy their services [1].	3
1(b)(i)	It shows that health screening can actually decrease rather than increase patient well-being [1] thus undermining the original justification for health screening [1]. It also highlights the way health screening can be commercially exploited [1].	2
1(b)(ii)	<p><i>1 mark for each of the following:</i></p> <ul style="list-style-type: none"> <li>The point about commercial exploitation would not apply to health screening carried out by public health organisations on a non-commercial basis.</li> <li>Non-commercial organisations are less motivated to do screenings which may be considered unnecessary.</li> <li>Only one example is given where health screening leads to the situation outlined.</li> <li>The points made would not apply to screening for conditions where effective and safe treatment is available.</li> </ul>	2
1(c)(i)	people are unlikely to regard such screening [screening to detect non-life-threatening conditions] as worthwhile	1
1(c)(ii)	<p><i>1 mark for each valid possible challenge. For example,</i></p> <ul style="list-style-type: none"> <li>Such conditions could become painful if left untreated</li> <li>Detecting such conditions early could avoid painful later treatment</li> <li>Detecting such conditions early could save the state / individual money</li> <li>Some people might prefer to feel free of any health problems</li> <li>If the condition is discomforting and contagious then it would be undesirable to allow it to spread</li> <li>Knowledge of having a condition may allow people to prevent it from worsening</li> </ul>	2
1(d)	<p><i>1 mark for identifying and 1 mark for explaining each weakness. For example,</i></p> <ul style="list-style-type: none"> <li>It is not known how long Bert would have lived had he not been screened [1]; it is possible that the screening has not extended his life [1].</li> <li>It is not known how long Fred would have lived if he had been screened [1]; it is possible the screening would not have extended his life [1].</li> <li>It is not known if either died from his cancer [1]; for instance, Fred may have been killed in an accident.</li> <li>Fred could have reached a significantly greater age than Bert [1], in which case the claim that Bert's life was extended is dubious [1].</li> <li>There could be a number of other factors (e.g. <i>any valid factor</i>) [1] which could have caused Fred's condition to deteriorate more rapidly than Bert's [1].</li> <li>The two examples may have been cherry-picked to support the claim [1] and are not enough to constitute 'convincing evidence' [1].</li> </ul>	4

Question	Answer		Marks
2	<b>Use of sources</b>	2 marks: accurate use of all or most of the sources provided 1 mark: accurate use of some 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>	
	<ul style="list-style-type: none"> <li>• Source A suggests health screening safeguards health,</li> <li>• but has a vested interest to make money.</li> <li>• Source B highlights the vested interest of private health providers to encourage screening;</li> <li>• however, these objections only apply to screening by private health advisors.</li> <li>• This suggests a narrower conclusion that one should avoid health screening by private health companies.</li> <li>• Source C suggests a problem with some of the evidence used to support the effectiveness of screening;</li> <li>• however, there may be a problem with the explanation as to why the evidence is problematic.</li> <li>• Source D suggests we need to distinguish between two different purposes of screening when evaluating it.</li> <li>• This source has high credibility because it is from a science journal;</li> <li>• however, screening to discover a condition could still be questionable.</li> <li>• Source E suggests health screening prolongs life;</li> <li>• however, there may be a problem with simply counting the years of life from diagnosis.</li> <li>• There are insufficient grounds for concluding that the money spent on health screening is justified – we would need to know what other options there were for health expenditure before we could draw this conclusion.</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><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>(but) we should welcome them [drones].</p>	<b>2</b>
3(b)	<p><i>For up to 3 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>• Drones promise to revolutionise the way shopping deliveries are made.</li> <li>• Deliveries made instead by drone will make a significant contribution to improving the environment.</li> <li>• Drones can make a significant impact on the preservation of law and order.</li> <li>• (However,) much harmless entertainment can be derived from using drones for leisure purposes.</li> <li>• Drones are extremely useful in emergency situations.</li> </ul>	<b>6</b>
3(c)	<p><i>2 marks for an exact version of any of the following</i> <i>1 mark for an incomplete or vague version of any of the following</i></p> <ul style="list-style-type: none"> <li>• There are no other environmental problems that drones create.</li> <li>• There are not environmentally friendly ways to deliver other than drones.</li> <li>• The expert commentators are correct.</li> </ul>	<b>2</b>
3(d)	<p><i>2 marks: counter assertion</i> <i>1 mark: counter argument</i> <i>OR accurate description of counter-assertion without naming it.</i></p>	<b>2</b>

Question	Answer	Marks
4(a)	Whilst it is true that successful technological innovations were initially opposed <b>[1]</b> , it would be begging the question to assume drones are going to be successful <b>[1]</b> .	<b>2</b>
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>Restricting the options / false dichotomy</i> – There may be other ways to preserve law and order rather than using drones.</li> <li>• Can also be expressed as:</li> <li>• <i>Slippery slope</i> – from specific law enforcement technique to a general collapse in law and order/anarchy.</li> <li>• <i>Questionable unstated assumption</i> -drones enable police to tackle sophisticated high-tech crime/the paragraph fails to show how drones could make a contribution to the fight against high-tech crime</li> </ul>	<b>2</b>
4(c)(i)	(Most) expert commentators say (this trend will continue and that actual shops on the high street will decline in importance).	<b>1</b>
4(c)(ii)	(However,) the risk posed by lasers is as much, if not greater.	<b>1</b>
4(d)	The analogy is weak <b>[1]</b> because the comparison with the man with the red flag is more appropriate to the position that drones need regulating rather than that they should be banned <b>[1]</b>	<b>2</b>

Question	Answer		Marks								
5	<table border="1"> <tr> <td data-bbox="320 253 544 353"><b>Supported conclusion</b></td> <td data-bbox="552 253 1313 353">1 mark for a precise, supported conclusion that meets the requirement of the question.</td> </tr> <tr> <td data-bbox="320 365 544 465"><b>Reasons</b></td> <td data-bbox="552 365 1313 465">1 mark for each use of a reason supporting a conclusion, up to a maximum of 3.</td> </tr> <tr> <td data-bbox="320 477 544 577"><b>Inferential reasoning</b></td> <td data-bbox="552 477 1313 577">1 mark for each use of an intermediate conclusion, up to a maximum of 3.</td> </tr> <tr> <td data-bbox="320 589 544 685"><b>Argument elements</b></td> <td data-bbox="552 589 1313 685">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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<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><b>C</b> To indicate main conclusion.</p> <p><b>I</b> To indicate creditworthy intermediate conclusion.</p> <p><b>R</b> To indicate creditworthy reason used to support a conclusion.</p> <p><b>AE</b> To indicate creditworthy appropriate argument element.</p> <p><b>Example 8-mark answers</b></p> <p><i>Support (136 words)</i></p> <p>Humans need to become more self-sufficient in order to deal with situations where the complex technology on which the modern world relies breaks down. Such is the interconnection between different technologies, something as simple as a tree falling on a power line can cause chaos; not only do the lights go out but trains stop running, hospital appointments are missed and mobile phone networks collapse under the strain as everybody tries to phone each other. We need to be prepared for these situations as they are not uncommon – we cannot work on the assumption that technology will always work.</p> <p>In any case, it is important for human self-esteem that tasks are successfully accomplished by an individual using their own skill and ingenuity rather than relying on technology.</p> <p>So humans should learn to cope without modern technology.</p>											

Question	Answer	Marks
5	<p data-bbox="316 248 616 282"><i>Challenge (143 words)</i></p> <p data-bbox="316 315 1315 483">We have to accept that modern society only functions because we rely on technology. It is true that such technologies can malfunction but there is little the individual can do if this happens. If their phone isn't working it is difficult to see what they can do apart from use another phone – this means they are still reliant on technology.</p> <p data-bbox="316 517 1270 685">We might dream of a situation in the past where people led self-sufficient lives and could deal with any problems they faced at an individual or community level, but this is not where we are now. Technology is as essential to <i>modern</i> existence as food and water so we if we want the advantages of such a society we have to rely on technology.</p> <p data-bbox="316 719 1299 786">So humans should not learn to cope without modern technology because it is a necessary condition of modern life.</p>	