



**Cambridge International Examinations**  
Cambridge Pre-U Certificate

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**GLOBAL PERSPECTIVES & INDEPENDENT RESEARCH**

**9777/01**

Paper 1 Written Paper

**May/June 2017**

MARK SCHEME

Maximum Mark: 30

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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.

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This document consists of **6** printed pages.

Question	Answer	Marks	Guidance
1	<p><b>Study Document 1.</b></p> <p><b>Summarise the benefits of GM technology discussed in Document 1.</b></p> <p>Candidates might consider some of the following benefits:</p> <ul style="list-style-type: none"> <li>• It allows plants to be protected from disease and pests</li> <li>• The plants require much less pesticide</li> <li>• The use of less pesticides is beneficial for the environment</li> <li>• GM crops reduce the risk of plants being attacked by cancer-inducing toxins</li> <li>• Ploughing is reduced and helps to maintain organic matter in the soil</li> <li>• Yields increase</li> </ul>	6	<ul style="list-style-type: none"> <li>• Candidates are asked to summarise, but examiners should be aware that this question carries only six marks and should not expect a lengthy answer</li> <li>• Summarise requires candidates to use their own words and candidates should not be rewarded for simply copying out <b>large sections</b> of the Document</li> <li>• Candidates should be awarded one mark for each benefit listed; alternatively responses which cite a benefit and provide a development in relation to the question should be awarded two marks for each</li> <li>• Do not reward information that is not drawn from the Document</li> </ul>

Question	Answer	Marks	Guidance
2	<p><b>Study Document 1.</b></p> <p><b>Assess the strengths and weaknesses of the argument in Document 1 about the advantages of GM crop production.</b></p> <p>Responses should focus on the <b>strengths and weaknesses</b> of the argument put forward in Document 1. Examiners should use the levels grid to assign the mark.</p> <p>Candidates are likely to draw on the following:</p> <p><b>Strengths:</b></p> <ul style="list-style-type: none"> <li>• The authority of the author, gives argument credence</li> <li>• The argument is supported with statistics, particularly towards end of the article on production rates</li> <li>• Evidence to support claims – statistics are present but sources not</li> <li>• Structure to the argument, explains why more food is needed and why GM is the answer</li> <li>• Argument appears to be logical</li> <li>• Does acknowledge counter argument on herbicide-resistant weeds</li> <li>• Appeals to emotion on need to produce more food</li> <li>• Use of specific data – 1982, 2010, 2011</li> </ul>	10	<ul style="list-style-type: none"> <li>• At Level 3 candidates must consider both the strengths and weaknesses.</li> <li>• At Level 2 there is likely to be imbalance between strengths and weaknesses. Candidates who focus on only the strengths or weaknesses can still achieve any mark within this level depending upon the quality of the evaluation. The evaluation may focus on one aspect: e.g. <u>only</u> evidence or <u>only</u> some aspect of the argument.</li> <li>• At Level 1 it is likely that candidates will consider only either the strengths or weaknesses. At this level candidates' answers are likely to be descriptive in approach, particularly at the lower end, if there is evaluation it may be very generalised.</li> </ul>

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	<p><b>Weaknesses:</b></p> <ul style="list-style-type: none"> <li>• Does not cite sources of the data</li> <li>• The author is a supporter of GM therefore could be biased in its favour</li> <li>• Counter argument is not developed</li> <li>• Appeals to emotion - fear of cancer</li> <li>• Assertion – reduced need for ploughing, reduction in carbon footprint</li> <li>• No evidence yields increase, costs decrease and less hazardous chemicals are needed</li> <li>• Nothing is clearly stated about growth over time</li> </ul>		<p><b>Level 3</b> <span style="float: right;"><b>8–10 marks</b></span></p> <p>Sustained evaluation of strengths and weaknesses of arguments and evidence, critical assessment with explicit reference to how flaws and counter argument support the argument. Highly effective, accurate and clearly expressed explanation and reasoning; clear evidence of structured argument/discussion, with conclusions reached/explicitly stated in a cogent and convincing manner.</p> <p><b>Level 2</b> <span style="float: right;"><b>5–7 marks</b></span></p> <p>Some evaluation of strengths and weaknesses of arguments and evidence, but evaluation may focus on one aspect; assessment of flaws etc. may not link clearly to the argument. Effective and generally accurate explanation and reasoning; some evidence of structured argument/discussion; conclusions may not be explicitly stated or link directly to the analysis.</p> <p><b>Level 1</b> <span style="float: right;"><b>1–4 marks</b></span></p> <p>Little or no evaluation of strengths and weaknesses, although flaws etc. may be identified. Level of communication is limited, response may be cursory or descriptive; communication does not deal with complex subject matter.</p>

Question	Answer	Marks	Guidance
3	<p><b>Study Documents 1 and 2.</b></p> <p><b>How successfully does Document 2 challenge the view of Document 1 about the need for GM technology and crops?</b></p> <p>Responses should focus on key arguments and evidence in both documents in order to compare alternative perspectives and synthesise them in order to reach a reasoned judgement. In order to assess whether Document 2 successfully challenges the argument in Document 1, candidates should consider not only the content of the Documents, but critically assess the arguments put forward through a consideration of issues such as the nature of the passages, purpose and language.</p> <p>Examiners should use the levels grid to assign the mark.</p> <p>Candidates should critically assess the use of examples and evidence in order to reach a judgement. In doing this they might conclude that Document 2 does or does not offer a clear and successful challenge to Document 1 with a range of well-chosen examples to help support this line of argument. No set answer is expected and examiners should be flexible in their approach.</p> <p>Candidates might consider some of the following:</p> <ul style="list-style-type: none"> <li>• Doc 2 challenges the view in Doc 1 of the benefits of GM crops</li> <li>• Doc 2 challenges Doc 1 in citing the success of small-scaling <i>organic</i> farming, however Doc 2 seems to neglect the reference in Doc 1 to smallholders</li> <li>• Doc 2 challenges Docs 1's use of assertion and assumptions about the past</li> <li>• Doc 2 does not attempt to challenge the scientific claims of Doc 1, relying instead on sweeping claims of 'scientists'</li> </ul>	14	<ul style="list-style-type: none"> <li>• At Level 3 candidates will reach a sustained judgement about the challenge. In order to do this they will have covered a significant range of issues, and evaluated them clearly.</li> <li>• At Level 2 there will be some evaluation and comparison, but it will be either poorly developed or limited in the areas covered, or only addresses strengths <b>or</b> weaknesses, or focused only on Document 2.</li> <li>• At Level 1 there will be very limited evaluation, comparison will be of the content and candidates may simply describe the documents, with little link to the question.</li> </ul> <p><b>Level 3</b> <span style="float: right;"><b>11–14 marks</b></span></p> <p>Answers at this level will demonstrate a sustained judgement about the challenge. There will be sustained evaluation of alternative perspectives; critical assessment with explicit reference to key issues raised in the passages leading to a reasoned and sustained judgement. Highly effective, accurate and clearly expressed explanation and reasoning; clear evidence of structured argument/discussion with conclusions reached/explicitly stated in a cogent and convincing manner.</p>

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	<p>In addition candidates are likely to include some of the following:</p> <ul style="list-style-type: none"> <li>• The authorship of the documents and issue of vested interest</li> <li>• Both agree that there is a challenge in feeding the growing world population, but offer different solutions</li> <li>• There are some assumptions in both documents, in Document 2 it claims that the world is largely fed by small, organic farms but no evidence provided, similarly over scientists and policy makers claim that organic farming is the answer</li> <li>• Claims against GM in Document 2 are often unsubstantiated, claims it is organic is better for human welfare but no evidence, whereas Document 1 supports the claim that will reduce cancer-inducing toxins</li> <li>• Both authors do use evidence and candidates might refer to Document 2 referring to IAASTD report and the UN Green Marshall to support argument – Document 2 is therefore able to appeal to authority and the largest review</li> <li>• Document 2 goes beyond the issues raised in Document 1 and claims that organic farming will solve other problems</li> <li>• Both documents do address the counter argument, although Document 2 provides little evidence to support its claims against GM</li> <li>• Document 2 lacks the statistical support provided in Document 1, it is much more generalised with little specific support or examples from regions</li> </ul>		<p><b>Level 2</b> <span style="float: right;"><b>6–10 marks</b></span></p> <p>Answers at this level will be more than just a comparison of the two documents; there will be some evaluation, but this will not be sustained and may focus on one perspective; assessment may not link key reasons and evidence clearly to the perspective or to the reasoned judgement. Effective and generally accurate explanation and reasoning; some evidence of structured argument/discussion; conclusions may not be explicitly stated or link directly to analysis.</p> <p><b>Level 1</b> <span style="float: right;"><b>1–5 marks</b></span></p> <p>Answers at this level will describe a few points and there will be little or no evaluation of perspectives, although some relevant evidence may be identified. If there is any judgement it will be unsupported or superficial.</p> <p>Level of communication is limited; response may be cursory or descriptive; communication does not deal with complex subject matter.</p>