

A-LEVEL

CRITICAL THINKING

Unit 2 (CRIT2) Information, Inference and Explanation
Mark scheme

2770
June 2014

Version/Stage: 1.0 Final

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available from aqa.org.uk

Critical Thinking Unit 2 (CRIT2)

Marking methods

In fairness to students, all examiners **must** use the same marking methods. The following advice may seem obvious, but all examiners **must** follow it as closely as possible.

1. If you have any doubt about which mark to award, consult your Team Leader.
2. Refer constantly to the mark scheme throughout marking.
3. **Always** credit **accurate, relevant and appropriate** answers which are not given in the mark scheme.
4. Do **not** credit material irrelevant to the question / stated target, however impressive it might be.
5. If a one word answer is required yet a list is given, take the first answer (unless it is crossed out).
6. If you are considering whether or not to award a mark, ask yourself 'Is this student nearer those who have given a correct answer or those who have little idea?'
7. Read the information on the following page about levels of response mark schemes.
8. Use the full range of marks. Don't hesitate to give full marks when the answer merits them or give no marks where there is nothing creditable.
9. No half marks or bonus marks can be given under any circumstances.
10. The key to good and fair marking is **consistency**. Once approved, do **not** change your standard of marking.

Marking using CMI+

All GCE Critical Thinking papers are marked electronically using a software application called CMI+ (Computer Marking from Image). Instead of paper being posted to examiners, student responses are scanned and sent electronically. The software is easy to use, but demands a different approach.

1. Instead of marking paper-by-paper you will mark item-by-item. An item is a part-question. Each time you log on you will need to choose an item to mark.
2. Before you start marking your own items you will need to mark some pre-marked items known as seeds. These ensure you are still applying the same standard set during standardising. If you are not, you will need to speak to your Team Leader before you can continue marking in order to clarify the correct interpretation and application of the mark scheme.
3. Seeds will also appear at random intervals during your marking to ensure you are maintaining the correct standard. If your marking is out of tolerance for a seed you will be prevented from marking that item until your Team Leader discusses this with you and clears you. You will, however, be able to mark other items.
4. Some higher mark questions are Double Marked. This means that a certain number of answers that you mark will be marked by another person. If the marks are within tolerance of one another, the higher mark awarded is the mark the student will be awarded.
5. You can annotate items in various ways: underlining, highlighting and adding icons from a drop-down menu. Your Team Leader will tell you which types of annotation to use. Examiners must not add extra annotation as this can be confusing for teachers and students if they request Access to Scripts.

6. As you mark each response, enter the mark you are going to award in the box at the bottom of the screen. If you realise you have made a mistake you can go back one paper to change the mark.
7. Your assessments will be monitored throughout the marking period. This ensures you are marking to the same standard, regardless of how many clips you have marked or what time of day you are marking. This approach allows senior examiners to ensure your marking remains consistent. Your Team Leader can bring you back to the right standard should you start to drift.
8. If your marking of a particular item is out of line, your Team Leader will contact you as soon as possible to explain where differences are occurring and how this can be addressed.

Levels of Response marking

Levels of response marking requires a different approach than traditional ‘point for point’ marking. It is essential the **whole response is read** and allocated the level it **best fits**.

Marking should be positive, rewarding achievement rather than penalising for failure or omissions. The award of marks must be directly related to the marking criteria.

Use your professional judgement to select the level that **best** describes a student’s work. Levels of response mark schemes enable examiners to fully reward valid, high ability responses which do not conform exactly to the requirements of a particular level.

If a student demonstrates knowledge, understanding and/or evaluation at a certain level, he/she must be credited at that level. **Length** of response or **literary ability** should **not be confused with critical thinking skills themselves**. A short answer which shows a high level of conceptual ability, for example, must be credited at that level.

Levels are tied to specific skills. Examiners should **refer to the stated assessment target** of a question (see the mark scheme) when there is any doubt as to the relevance of a student’s response.

Levels of response mark schemes include either **examples** of possible students’ responses or **material** which students might use. These are intended as a **guide** only as students will produce a wide range of responses to each question.

Assessment of Quality of Written Communication (QWC)

Where students are required to produce extended written material in English, they will be assessed on the quality of written communication.

Students will have to:

- ensure text is legible; spelling, punctuation and grammar are accurate and meaning is clear
- select and use a form and style of writing appropriate to purpose and to complex subject matter
- organise information clearly and coherently, using specialist vocabulary when appropriate.

Quality of written communication will be assessed in all units in this specification via Assessment Objective 3.

Critical Thinking Mark Scheme

INTRODUCTION

The nationally agreed **assessment objectives** in the QCA Subject Criteria for Critical Thinking are:

- AO1** Analyse critically the use of different kinds of reasoning in a wide range of contexts.
- AO2** Evaluate critically the use of different kinds of reasoning in a wide range of contexts.
- AO3** Develop and communicate relevant and coherent arguments clearly and accurately in a concise and logical manner.

- Marks are allocated to the assessment objectives according to the nature of each question and what it is intended to test.
- For Section A, Examiners need only provide a total mark for each of the candidates' answers. They do not need to provide a breakdown by Assessment Objective.
- For Section B, marks should be awarded according to the generic marking grid.
- Candidates should be able to achieve the highest marks with a selection of relevant points, not necessarily the complete range.
- **Indicative content is provided as a guide for examiners. It is not intended to be exhaustive and other valid points must be credited.**

Critical Thinking Unit 2 (CRIT2) Mark Scheme

Section A

Questions 1 to 3 refer to Document A.

No.	Question	AO:	1	2	3
1	Give an example of an attack which would <u>not</u> count as 'unprovoked'.	[1 mark]	1		

Any which does not come under the definition in paragraph 2.

E.g. an attack on a person fishing for sharks; an attack by a shark in a zoo or aquarium.

NB. Just 'swimming (in the sea)' would not count as provocation according to the definition. Nor would splashing etc., unless deliberately to annoy a shark. There would have to be some intentional act to harm or annoy or attract the shark to count as provocation.

No.	Question	AO:	1	2	3
2	In <u>paragraph 3</u> , the author states that the increasing number of attacks 'does not necessarily mean that there is an increase in the rate of shark attack'. Explain why this statement is <u>not</u> a contradiction? Is the claim justified?	[4 marks]		4	

Marks should be awarded according to the following level descriptors.

Level	<i>Explain why a claim that might appear contradictory is not necessarily so.</i> <i>Explain why a seemingly contradictory claim may be justified.</i>	Q-specific: Qu 2
Good: 3 – 4 marks	An explanation is provided as to why a given statement – that might seem contradictory – is not necessarily a contradiction.	It is explained why 'rate' need not mean simply the rising number of attacks over time. It may mean per head of population or per

	<p>OR: it is shown how the statement may be interpreted in a non-contradictory way.</p> <p>OR: It is explained why it is justified to say that the statement in question need not be contradictory.</p> <p>It is evident that the candidate understands why a contradiction has not necessarily been made (3)</p> <p>It is explained / argued reasonably clearly (4)</p> <p>BUT see NB(i) below.</p>	<p>number of people going in to the sea (or even the number of sharks).</p> <p>AND/OR it is explained (as above) why or how it may be justified to say that the number is rising but, at the same time, that the 'rate' may mean something else.</p> <p>e.g. "It may not be a contradiction / may be justified, because a lot more people go into the sea now and rate might mean the number of those who are attacked." (4)</p>
<p>Intermediate: 2 marks</p>	<p>Some critical assessment is made regarding the justification for the claim</p> <p>OR</p> <p>Some reason is offered as to why there may no contradiction.</p>	<p>The word / concept 'rate' is recognised – explicitly or implicitly – as the issue.</p> <p>e.g. "There could be more swimmers now."</p>
<p>Basic: 1 mark</p>	<p>Some critical assessment is offered that is unclear or not directly relevant.</p>	<p>e.g. "It may mean that there are fewer attacks sometimes."</p> <p>"It doesn't include provoked attacks which may be more"</p> <p>etc.</p>

NB (i) If (exceptionally) a candidate challenges the question by saying that there *is* still a contradiction, marks (up to full) can be awarded **if** some reasoning is offered as to why 'rate' means rising number of attacks over time, and/or is not relative to e.g. population.

e.g. "If the number each year is rising, that is a rise in the rate / it is not justified to say the rate is not / need not be rising." (3-4)

NB(ii) If candidate bases answer only on the 'provoked'/'unprovoked' distinction, limit to BASIC (1).

No.	Question	AO:	1	2	3
3	<p>Comment critically on the following interpretation of the data in Document A:</p> <p>Shark attacks peaked in 2010 and finally began to fall, reversing a long-standing trend. This is hardly surprising given the destruction of up to 70 million sharks per year.</p> <p style="text-align: right;">[4 marks]</p>				
			2	2	

Marks should be awarded according to the following level descriptors.

Level	<i>Comment critically on a given interpretation of a text presenting data</i>	Q-specific: Qu 3
<p>Good: 3 – 4 marks</p>	<p>A clear and perceptive judgement is given on the accuracy of the interpretation.</p> <p>Reference is made to the data, and <i>critical comment</i> made on the extent to which it does or does not support the interpretation.</p>	<p>For 4 marks both sentences in the interpretation should be addressed, and a good reason given as for accepting or rejecting each part. E.g.</p> <p>“After just a one-year fall It’s too soon to say there has been a reverse in the trend, and even if there has been it may not be because of the number of sharks that have been killed. There could be many other explanations.” (4)</p> <p>For a well developed critical comment on just one part of interpretation, 3 may be awarded. (See suggestions below.) (Also see NB below.)</p>
<p>Intermediate: 2 marks</p>	<p>Some critical or evaluative comment is made on the data, and / or a judgement offered on the extent to which the interpretation is a fair one</p>	<p>One or both of the sentences of the interpretation is considered, and some critical comment made.</p> <p>e.g. “There could be other reasons for the fall besides the destruction of sharks.”</p>
<p>Basic: 1 mark</p>	<p>A critical comment is attempted showing some understanding of the data and the interpretation offered.</p>	

Points could include:

In support of the interpretation

- There has been a decade-upon-decade increase in shark attacks, AND the 2011 figure was lower than the previous year.
- There have been (up to) 70 million sharks destroyed: it could explain a reversal (if there is one).

For rejecting the interpretation

- A single year is not enough to count as evidence of a peak or a reversal.
- The 2011 figure was still higher than the average of 64 for decade to 2009. (If the long-standing trend was upwards to an average of 64, then clearly 2011 (75) is not a reversal.
- Even if there were a reversal underway, there is no justification for the implied explanation that the killing of 70m sharks is responsible / has caused it.
- 'Up to 70 million' disguises the fact that the figure is '30-70 million'.
- The high numbers of sharks being killed has been going on for many years (i.e. before the alleged 'reverse').

Other similar points may be accepted.

NB. It is unlikely that responses which say that the interpretation is good will attract full marks, since (a) the one year fall is weak evidence of a reversal; and, (b) the implicit explanation that the killing of 30-70m sharks is the cause is implausible. However, an appropriately qualified shot at justifying the explanation could be awarded top band.

E.g.

“A one year fall in shark attacks is not very much, but it could be a sign of reversal of the trend beginning. If so, one of the explanations might be because of the killing of so many sharks.”

Questions 4 and 5 refer to Document B (Graphs 1 to 3).

4 Assess the support, if any, provided by Document B for each of the following claims (a, b, c, d).

Give a brief explanation for each answer.

No.	Question	AO:	1	2	3
4 (a)	'In the 1990s, there were more than twice as many unprovoked shark attacks per 10 million Australians, as there had been in the 1980s.' (Graph 1)	[4 marks]	2	2	

Claim not true / unsupported: there were *fewer* than twice as many ...

- 1980s : 21/14 million x 10 = 15 (margin +/-1)
- 1990s: 43/16.5 million x 10 = 26 (margin +/-2)

4 marks for correct assessment with adequate explanation, as above.

- It is sufficient to give the correct figures 15, and 26 – i.e. without showing the calculation.
- It is also sufficient to give the relevant correct figures without *explicitly* stating that one is fewer than half of the other (since it is so obvious).

3 marks for correct assessment, and recognisably correct method, but with minor calculation errors giving figures outside the margin. (But this can only be given if some working is shown.)

2 marks for correct assessment and some evidence of correct method – e.g. one correct figure.

1 mark for *incorrect* assessment, *but* some evidence of correct method. This may include merely recognising that the relevant data is shark attacks per population.

0 for a judgement only – e.g. "The statement is not supported", with no (or wholly irrelevant) explanation/calculation.

0, also, for giving the *raw* number of attacks – e.g. 21 and 44 respectively – as reasons for saying that the statement is supported. This data alone is not relevant.

(NB It is just possible a candidate might give the approximation as 14:28 which is within the margin of error. If it is pointed out that this is exactly twice as many, then award 3.)

No.	Question	AO:	1	2	3
4 (b)	<p>‘The proportion of all unprovoked shark attacks off Australia resulting in a fatality has fallen in each decade since 1950.’ (Graph 1)</p> <p style="text-align: right;">[3 marks]</p>		1	2	

This is false / unsupported. 70s anomalous.

- **50s : 10/26 = c. 40%;**
- **70s 6/12 = c. 50%**
- (60s 7/36 = c. 20% ... 80s: 4/21 = c 25% ... then obviously downward)

3 marks for correct assessment plus identification of the 70s as the anomaly; and the correct figures for the 50s and 60s are shown (as above). Calculation need not be shown but if it is it must be supportive.

2 marks for correct assessment and identification of the 70s as the anomaly, but without figures or calculations.

1 mark for correct assessment and any explanation or calculation that indicates the candidate is considering the *proportion* of fatalities to attacks.

0 for wrong assessment; or for assessment only, with no (or wholly irrelevant) explanation.

No.	Question	AO:	1	2	3
4 (c)	<p>‘The percentage increase in unprovoked shark attacks between the 1990s and 2000s was greater in the waters off Florida than it was worldwide.’ (Graphs 2 and 3)</p> <p style="text-align: right;">[3 marks]</p>		1	2	

This claim is true / supported by the data.

- The increase in Florida was by c. 42 % ($260 - 183 = 77 / 183 = 0.42$)
- The worldwide increase was c. 30% ($650 - 500 = 150 / 500 = 0.30$)

3 marks for correct assessment and both percentage increases correctly given, +/- 2. (Correct assessment will be taken as implied if just the respective percentages are given.)

2 marks for correct assessment with calculating error outside the allowed margin of 2, but sufficiently close to indicate correct method. (Wildly incorrect values should be taken to imply failure of method.)

1 mark for correct assessment supported by any attempted comparison of percentages

0 for incorrect assessment, or assessment only – i.e. with no (or wholly irrelevant) explanation.

No.	Question	AO:	1	2	3
4 (d)	<p>‘If the data in <u>Graph 3</u> are accurate, no other decade in the 20th century saw as many fatal, unprovoked shark attacks as the 1960s.’</p> <p style="text-align: right;">[4 marks]</p>		2	2	

This statement is incorrect / not supported:

Out of approx. 245 reported attacks in the 1960s about 23% were fatal: a total of **56** (+/- 2)

BUT: 50s: **62**(+/-2) (i.e. 0.39×160); 90s: c. **65** (+/-2) (i.e. 0.13×500).

4 marks for correct assessment, together with correct figures for the 1960s and identification of either or both the 50s **AND/OR** 90s as the exceptions, with figures.

3 marks for correct assessment and identification of 50s AND/OR 90s as the exceptions with some figures outside m.o.e.

2 marks for correct assessment and identification of 50s AND/OR 60s as exceptions without figures given (or with significantly inaccurate figures).

1 mark for correct assessment and some attempted explanation.

0 for wrong assessment, or assessment with no attempted explanation.

No.	Question	AO:	1	2	3
5	<p>Document B concludes (after Graph 3):</p> <p>‘Overall the trend in fatality rate per decade has been one of constant reduction over the past 11 decades, reflective of advances in beach safety practices and medical treatment, and increased public awareness of avoiding potentially dangerous situations.’ (ISAF)</p> <p>Comment critically on the strength of support given to this statement by the statistical data in <u>Document B</u>.</p> <p style="text-align: right;">[6 marks]</p>		2	3	1

Marks should be awarded according to the following level descriptors.

Level	<i>Assessing support for a given inference or interpretation</i>	Q-specific: Qu 5
Good: 5 – 6 marks	<i>Additionally,</i> a clear and perceptive evaluative judgement is given and well developed <i>critical comment</i> in support, addressing the main points in the statement.	There are two parts to the statement: the first is about the constant reduction in the proportion of fatal attacks ; the second about three claimed reasons – better beach safety; medical advances; awareness of danger. For top band both must be responded to; so some analysis of (or reference to) numerical data is needed. (See notes below.)
Intermediate: 3 – 4 marks	Appropriate data is recognised and a relevant evaluative judgement is expressed in response to the question.	If only one part of the (as above): award no more than 4 Acceptance or rejection of the reasons, but with little (or no) critical comment – see NB below.
Basic: 1 – 2 marks	Some related information / evidence is identified but with little or no accompanying critical comment.	For basing the response on raw data for sharks attacks or fatalities – not <i>proportion</i> of fatalities as required.

Graph 3 does indicate a general downward direction for the proportion of attacks that are fatal. This would be sufficient to assess the first part of the statement as broadly correct. (The word ‘constant’ might be queried because of 1930s and 90s, but these small blips do not significantly affect the claimed downward trend.) The downward trend would support the explanation / hypothesis that medical advances give a plausible explanation – by reducing the fatalities per attack. But there is little or no ground for making the same claim about beach safety and/or increased awareness of danger. (6 marks for this or equivalent).

For a top band mark the relevant data must be seen to be the *proportion* of fatal attacks – i.e. Graph 3, which is corroborated by graphs 1 and 2 if proportions are extracted. Noting only a simple rise in fatalities (from graphs 1 and 2) is insufficient to answer the question and mark must be limited to BASIC.

However, Graphs 1 and 2 also show the raw number of attacks and (therefore) fatalities rising. So it may be *added* to the above that e.g. greater risk awareness is not a plausible inference to make. Note that If this is the *ONLY* point made, mark is still limited to BASIC.

Responses that address the appropriate data, but partially or uncritically respond to the statement limit to INTERMEDIATE band.

NB merely accepting or rejecting the claims in the statement without any reasons or critical comment, must be limited to INTERMEDIATE. E.g.

“This statement is supported by graph 3 which shows a steady decline in fatalities, thus proving the medical advances and increased public knowledge of dangers posed by sharks.” (3)

Questions 6 and 7 refer to Document C.

No.	Question	AO:	1	2	3
6	Is it a fair criticism to describe the reasoning in <u>paragraph 2</u> of <u>Document C</u> as <i>ad hominem</i> ? [4 marks]		2	2	

Level	<i>Assessing the fairness of a claim that an argument is ad hominem</i>	Q-specific: Qu 6
Good: 3 – 4 marks	Correctly identifies the relevant part of the text where an ad hominem could be alleged to apply, and shows understanding of the difference between a justified comment on an arguer as part of an argument, and an attack designed to discredit the arguer personally without considering their argument. Candidate may balance both fallacious and non-fallacious interpretations of the relevant content.	EITHER: effectively argues that the author’s comments on Moore are made to discredit him as driven by ulterior / selfish / partisan motives, rather than addressing Moore’s statements as a proper economic argument. OR: effectively argues that the author recognises that Moore has a legitimate position and/or argument, and is addressing that, rather than merely attacking Moore on a personal level.
Intermediate: 2 marks	Correctly identifies the relevant content and offers some reason/s as to why it is or is not an ad hominem.	
Basic: 1 mark	Demonstrates understanding of what an ad hominem argument is, but may fail to make it clear.	Merely states that it is personal, or a personal attack.

NOTE: A comment about a person in an argument need not be a fallacy. Here the question is whether or not the author of Doc. C is using Moore’s motives as a reason to discredit his argument for lifting the restriction on killing sharks. But if the author of Doc. C is merely considering or countering the economic case that Moore makes, then it is not a fallacy to mention Moore’s motive. In particular, it would not be a fallacy just to *quote* Moore. There is room to interpret Paragraph 2 either way.

Examples:

YES: The criticism is irrelevant and is only about the person / only made to make Moore look bad. (1)

YES: The author says that Moore ‘has an eye on the economic implications’. This is *ad hominem* because it is personal / a personal attack. (2)

NO: because it is not about Moore personally but just about what he said. (2)

YES: The author suggests that Moore is motivated by economic interest / the effects on tourism. So it is *ad hominem* because it reflects on Moore himself rather than his argument / the facts of the case, etc. (3)

YES: The author is challenging Moore’s argument that the shark attacks are a cause for alarm and must be dealt with. By saying Moore has an eye on economic implications the author is suggesting that Moore is not arguing from facts but from selfish or partisan motives, so it is a fair criticism to call it *ad hominem*. (3-4)

NO: It is not a fair criticism. Heath is not attacking Moore, he is only quoting him. (3)

NO: The author of Document C is merely commenting on Moore’s reasons (grounds, motives, etc.) for taking his position / arguing for an end to protection, etc. It is not a criticism of Moore to say that he is advancing an *economic* argument, or an argument in support of the interests of the tourist industry. (3-4)

No.	Question	AO:	1	2	3
7	Comment critically on the reasoning used by the author in Document C against lifting the protection of great white sharks. [6 marks]		2	3	1

Marks should be awarded according to the following level descriptors.

Level	<i>Comment critically on the argument</i>	Q-specific: Qu 7
Good: 5 – 6 marks	Gives (or implies via criticism) a <i>plausible interpretation</i> of the reasoning in the text; <i>and</i> expresses an <i>evaluative judgement</i> , backed by <i>critical comment</i> on one or more key features of the reasoning (as interpreted).	Some or all of the bullet points below should be addressed and commented on critically, although developed commentary on two or more of the strands can also attract top band marks.
Intermediate: 3 – 4 marks	Gives or implies a tentative or partial understanding of the text <i>and</i> makes one or more relevant critical or evaluative points that support or challenge the reasoning.	At least one strand of the argument needs to be recognised and addressed.

Basic: 1 – 2 1 – 2 marks	Makes, or recognisably attempts, one or more relevant critical comments on the reasoning in the text. It must be more than expression of opinion.	
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There are several strands to the argument:

- that ending protection will give green light to slaughter / is motivated by revenge and/or economic interests.
- that sharks are actually less dangerous statistically than e.g. car or air travel.
- that the ocean belongs to the species that inhabit it and if we enter it we do so at our own risk.
- that if we set a precedent with sharks, we will go on to kill many other species that harm us.

There are merits in both parts of the argument but candidates should also recognise the slippery slope fallacy in the final paragraph. It is the assumption that once we set a precedent by killing one species that harms or inconveniences us, we will necessarily or inevitably go on to kill many others, including ones which (by implication) we value more, such as tigers. The latter does not necessarily follow, especially to the extreme that only humans and furry pets will be left. (However, this extreme may be put down to exaggeration for effect rather than a serious prediction.)

NOTE: A response that deals only with the slippery slope and no other parts of the argument should be limited to BASIC, (or to 3 if very thoroughly developed).

The analogy in para 3 could also be assessed. It is quite an effective analogy since it shows how fear is often misplaced / inconsistent. It could possibly be faulted in that there is nothing much that can be done about accidents, but there are measures that could reduce shark attacks. It could also be noted that the numbers of people on the roads far exceeds the numbers at risk in the sea.

Critical comment could also be applied to possible ad hominem fallacy (par. 2) / the appeals to sentiment, emotion, etc. / rhetorical ploys such as 'furry pets', 'slaughter'. There is also a possible straw man in the suggestion that the authorities are arguing for 'revenge' (par 1).

The comparison with sharks entering humans' homes is rather weak or even absurd.

(Other critical comments may also be credited; the above are examples.)

Question 8 refers to Document D.

No.	Question	AO:	1	2	3
8	What contribution does the information in Document D make to the argument for the protection of large sharks? How strong is the evidence that the article provides? [4 marks]		2	2	

Marks should be awarded according to the following level descriptors.

Level	<i>Assessing evidential contribution to an argument or viewpoint</i>	Q-specific: Qu 8
Good: 3 – 4 marks	The argument, and the information offered in support, are correctly understood. There is some critical comment on the strength of the contribution the evidence makes to the argument in question.	The key facts in the study should be noted AND their contribution commented upon. See notes below.
Intermediate: 2 marks	Some of the relevant information is broadly understood. A judgement is expressed on the contribution to the argument, with some supporting or explanatory reason	e.g. that the scallop population has been affected by reduced shark population.
Basic: 1 mark	Some understanding of the text is shown OR some critical comment attempted.	e.g. The evidence comes from an expert on marine biology.

For a top band answer some or all of the relevant facts revealed by the study should be identified...

- Large sharks along the eastern US coast have almost disappeared (because of demand for the meat etc.). The result has been that smaller sharks etc. have increased in numbers, and the scallops etc. on which they feed have almost been eliminated, with financial hardship for scallop fishermen.

...and their contribution to the debate assessed. E.g.

- The study is a single example, and does not make a general case for shark protection (worldwide)

OR:

- It is good example of what happens if a large predator is removed from the food chain.

- It may be added that the evidence is strong / credible / reliable given the length of the study (30 years) and qualifications / expertise of the researchers. BUT for judgement of reliability or credibility ONLY, mark should be limited to basic level (1)

Section B

No.	Question	AO:	1	2	3
9	<p>‘Swimming and water sports are massively popular, enriching and economically important activities. We need coastal waters to be safe. If sharks bite humans, humans must bite back, with force. There is no more to it than that.’</p> <p>Write a reasoned argument which supports or opposes the statement above.</p> <p>In presenting your case you should:</p> <ul style="list-style-type: none"> • produce a structured argument with a clearly stated conclusion or conclusions • draw on relevant information and evidence found in the source documents; you may also draw on your own knowledge and experience if relevant • consider any general principles that may apply • consider and respond to opposing views or arguments. <p style="text-align: right;">[27 marks]</p>				27

A good response should include some interpretation or analysis of the (figuratively worded) statement – i.e. what is meant by ‘bite back’; and equally by ‘force’. Does it extend as far as eliminating the species; or taking revenge / hunting individuals responsible for particular attacks?

Whether supporting or opposing the statement the candidate’s conclusion should make clear which interpretation is applicable – and the reasoning must then be consistent with it.

The candidate may consider the argument that humans should put their own recreational and/or economic interests first; and that if these are compromised by the danger sharks pose, then it is justified that we should take steps to eliminate the danger, if necessary by culling the animals. This may be challenged on various grounds both principled and pragmatic. Do animals have the right to protection, freedom from extermination / cruelty etc. that apply to humans and to other more ‘friendly’ species? On principle: do humans have the right to protect themselves against hostile creatures? etc. On the pragmatic front, does it make sense to kill off big predators at risk to the food chain and ecological balance? These are questions that may be explored and used to set up targets for counter-argument.

Material for arguments on both sides can be found in the sources. There is statistical evidence of frequency and trends in shark attacks, level of destruction of shark populations, fatalities etc. which may be used judiciously to support or challenge the statement. There is also anecdotal evidence, for example Doc C, para 3.

It is important that the documents and data in them be handled critically – e.g. questioned, evaluated, interpreted – and the top mark level should be reserved for responses in which this is the case. Does anecdotal evidence of very rare events really justify retaliation on the species? Do the apparent reductions in number of fatalities per attack really suggest that shark attacks are becoming less deadly? Does the number of attacks mean sharks are becoming more aggressive, given there are fewer of them? Do claims and arguments like those of the scallop fishers and the tourist bosses and politicians really address the *issues*, or are they biased in favour of their vested interests? In contrast simplistic arguments such as; ‘Doc C shows that shark attacks are increasing in frequency and severity so we need to respond aggressively and ‘get our own back’, is no more than ‘basic’ use of data.

The mark (up to 12) given for ‘reasoning’ should reward structure and not just rhetoric. A good argument will begin with evidence taken from the sources (and/or candidate’s own knowledge) and appropriately interrogated to obtain a set of basic premises from which one or more inferences may be drawn. These in turn should be questioned or challenged with anticipated objections, and a suitable reply or modification made, before advancing to the next step.

For example: a line of reasoning could begin with the tragic incident described in Doc C, leading to an argument that we cannot just let such things happen and not take some determined action to prevent them in the future. The objection could be raised that such incidents are extremely rare, compared with populations as a whole and with other much more commonplace dangers, using the statistics from the sources as evidence. In response it could be argued that rarity is irrelevant: fatal shark attacks are rare but uniquely terrible. And they are preventable – unlike, say, earthquakes. We don’t let wolves and tigers and snakes wander freely in inhabited areas, so we should keep coastal waters free of sharks in the same way. They are predators but we are predators: may the best species win!

This is just one of many argument/counter-argument sequences that could be constructed. Similar sequences could be developed for the ecology case or the animal rights debate; or the endangered species debate – or the argument that sharks are beautiful, iconic, prehistoric,....

A good argument is more than just a matter of considering both sides even-handedly and then plumping for one of them without making a strong or decisive case. The best responses will have a clear direction, and the anticipated objections should be used to test the premises and sub-argument en route to the main conclusion. The mark for ‘Reasoning’ will reflect this structure, direction and purpose.

Use the Generic mark-grid below for Question 9.

Generic mark-grid for Section B (Question 9):

Award level			
Criteria	Level 3 Good: (19 – 27)	Level 2 Intermediate: (10 – 18)	Level 1 Basic: (1 – 8)
QWC (required for the level)	Consistently clear, legible and well-structured, in language appropriate for the task.	Generally clear and comprehensible.	Communication may be impeded at times.
Conclusion	3	2	1
	A conclusion is clearly stated that is consistent with the reasoning and directly relevant to the question set.	A conclusion is clearly stated that is relevant to the question	A conclusion is stated.
Reasoning	9 – 12	5 – 8	1 – 4
	A well-structured case is presented with a strong set of premises and contributory arguments firmly supporting the stated conclusion. Argument is developed by using explanations, examples, definitions, clarifications, etc. as needed. Opposing views are recognised and/or objections anticipated; and these are met by effective counter-argument / refutation.	The conclusion is supported with a number of suitable premises. Some useful examples, definitions, and or explanations are given, but not developed. Opposing view/s or argument/s recognised and some response made. (<i>Exceptionally</i> an essay will make little or no reference to opposing views and counter arguments yet still exhibit sufficiently strong reasoning for this band.)	Reasons are offered but may be of limited effectiveness in their support of the conclusion; and with little or no additional development. (2-3) Content may be limited largely to discussion, expressed opinion. (1-2)
Use of information From Source Documents and/or other relevant information or experience.*	7 – 8	4 – 6	1 – 3
	A range of relevant information (<i>must</i> include some from the Source Documents) is identified and used effectively to develop the argument. There must be critical engagement with some of the information – analysing, , interpreting, evaluating, adapting, etc.	Information is introduced and used in support of the argument. There will be limited critical engagement but should be some attempt.	Information is introduced into the discussion, but with limited effectiveness and no critical engagement.

Reference to principle	3 – 4	1 – 2	
	One or more general principles introduced and play a significant role in the argument – i.e. used as premises or drawn as intermediate conclusions.	One or more general principles are introduced and play some role in the discussion	n/a

* NB Candidates are not rewarded for exhibiting additional knowledge per se, but for the use they put it to in their reasoning if they choose to introduce it. Conversely, there is no penalty for not exhibiting additional knowledge: use of the documents alone is sufficient for awarding Level 3 'Good response' (5–6).

Approximate distribution of marks across the questions and assessment objectives for Unit 2

AO Balance	AO1	AO2	AO3	Totals
Qu 1	1			1
Qu 2		4		4
Qu 3	2	2		4
Qu 4(a)	2	2		4
Qu 4(b)	1	2		3
Qu 4(c)	1	2		3
Qu 4(d)	2	2		4
Qu 5	2	3	1	6
Qu 6	2	2		4
Qu 7	2	3	1	6
Qu 8	2	2		4
Total Section A	17	24	2	43
Qu 9			27	27
Total Section B			27	27
Paper Total: [70] Marks	17	24	29	70
Paper Total: [70] Percentage	24%	34%	42%	100%