

Critical Thinking

Advanced GCE **F504**

Unit 4: Critical Reasoning

Mark Scheme for June 2010

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Assessment Objectives [AOs] and Allocation of Marks

The total mark for the paper is 60, allocated as follows:

- AO1 **Analyse** argument 20 marks
- AO2 **Evaluate** argument 20 marks
- AO3 **Develop** own arguments 20 marks

Question	AO1	AO2	AO3	Total
1	4			4
2	6			6
3	10			10
4		20		20
5			20	20
Total	20	20	20	60

Analyse

- 1 **Name the following elements and briefly explain their function in the structure of the reasoning:**

- (a) 'It is the equivalent of Greenpeace warning every potential donor that real Greenpeace activists virtually never work in small rubber dinghies fighting illegal whalers.' Document 1 Paragraph 9 **[2]**

Analogy, which is used to support the claim that 'Dismissing any connection, on the other hand, is like telling people: 'If you are interested in archaeology because of Indiana Jones then it is not for you!''/or that dismissing any connection between Indiana Jones and archaeology is a bad idea (accept this paraphrase).

One mark for the name, one for the function.

- (b) 'Nearly all of the known crystal skulls have at times been identified as Aztec, Toltec, Mixtec, or occasionally Maya.' Document 2 Paragraph 3 **[2]**

Statement of context/against which the author is arguing.

Accept counter assertion to which the author responds/which the author shows to be wrong.

One mark for the name, one for the function.

2 Is Document 2 an argument? Justify your answer. [6]

No, as a whole it is not an argument but it contains an argument. Paragraphs 1 and 2 are reporting events in the author's life, and contain an explanation (of why Richard Ahlborn came to the author with the skull). Paragraph 3 is an argument to show that the crystal skulls in existence are not Pre-Columbian but modern fakes.

Level 4: (6 marks)	Thorough analysis of the types of reasoning present in the document including some understanding of complexity.
Level 3: (4-5 marks)	Clear analysis of the type of reasoning present in the document.
Level 2: (2-3 marks)	Basic analysis of the type of reasoning present in the document.
Level 1: (1 mark)	Limited analysis of the type of reasoning present in the document.
Level 0:	No creditworthy material

Candidates can achieve level 4 by answering either 'yes it is an argument' or 'no it is not an argument'. The marks are achieved by the analysis used to justify the answer.

Exemplar answers**Level 2 (just)**

The argument talks about why the crystal skulls are too good to be true. It tells us about Jane's research. There is not enough evidence to make it a proper argument.

Level 3

It is an argument. The conclusion is 'The crystal skulls are almost certainly fakes.' The rest of the document gives us reasons to support this conclusion, such as that the stone work is too good.

Level 4

Document 2 is not an argument but it contains an argument in Paragraph 3. The first two paragraphs are report and explanation. The last paragraph gives reasons to support the claim that 'the crystal skulls are almost certainly fakes.'

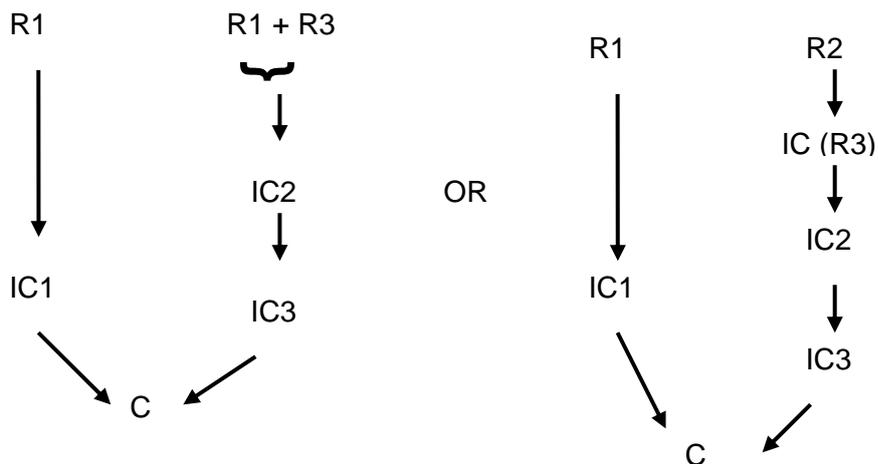
- 3 Paragraphs 4 and 5 of Document 1 counter Holtorf's main argument. Analyse in detail the structure of this counter-argument by identifying elements of argument (such as reasons, intermediate conclusions, etc) and showing their relationships to each other. [10]

In all cases performance descriptors refer to candidates performing at the top of the band. Any candidate performing above the descriptor enters the bottom of the next band.

Candidates should demonstrate understanding of argument structure.
Candidates should identify elements of subtle and complex arguments using appropriate terminology.

	Performance descriptors
Level 4 9 – 10	Thorough. Candidates demonstrate thorough understanding of argument structure, including some complexity. Candidates are able to identify elements of complex reasoning accurately using appropriate terminology. Mistakes are rare and not serious.
Level 3 6 – 8	Clear. Candidates demonstrate a clear understanding of argument structure. Candidates are able to identify most elements of reasoning accurately using appropriate terminology. They may make mistakes, occasionally serious ones.
Level 2 3 – 5	Basic. Candidates demonstrate basic understanding of argument structure. Candidates are able to identify some elements of reasoning accurately using appropriate terminology. They may mix this with gist and misunderstanding.
Level 1 1 – 2	Limited. Candidates demonstrate limited understanding of argument structure. Candidates may provide poor paraphrases of isolated elements of arguments or give overall gist.
0	No creditworthy material

- R1 The adventures of Indiana Jones are based on an imperial world in which western archaeologists routinely travel to the far corners of the globe in order to retrieve precious artefacts and save the world from evil.
- IC1 It therefore gives the impression that the world is dependent on intervention from the west.
- R2 Moreover, the films draw on a long cinematic tradition of portraying archaeology as the domain of white, heterosexual, able-bodied and talented men who live through action-packed adventures in foreign countries.
- R3 This stereotype becomes part of the cultural baggage of very large audiences, and (accept as IC supported by R2)
- IC2 so it colours their perceptions of archaeology outside the cinema.
- IC3 As a result it may even discourage individuals who do not think they conform to this apparent ideal from making archaeology their career choice.
- C of argument in these two paras: A far more serious criticism is that elements of the film scripts communicate highly objectionable values.



Candidates who treat this as two separate arguments with no common main conclusion may gain a high mark if each paragraph is otherwise mostly accurately analysed.

Candidates who think that the first sentence is scene setting (do not accept other elements) and call IC3 the conclusion of the counter argument in both paragraphs may gain a high mark if analysis is otherwise mostly accurate.

Evaluate

1 'Ultimately, archaeology has far more to gain from being associated with characters like Indiana Jones than it has to fear.' Document 1 Paragraph 8

How effectively is this claim supported by the reasoning in the whole of Document 1? Justify your answer with selective reference to key strengths and weaknesses and their effect on the strength of the reasoning. [20]

	Performance Descriptors
Level 4 16 – 20	Sound, thorough and perceptive. Candidates come to an overall conclusion, well supported by sound, thorough and perceptive evaluation of key strengths and weaknesses in the reasoning. They provide consistent and accomplished evaluation of the effect of this strength and weakness on the overall strength of the reasoning, focussing on the way specific claims are supported and the effect this has on the overall structure of an argument. Inappropriate forms of evaluation are rare and not serious. Their language is nuanced and conveys complex evaluation clearly.
Level 3 11 – 15	Clear. Candidates generally come to an appropriate conclusion (perhaps slightly too strongly stated), supported by clear and mostly relevant evaluative comments which refer mostly to strengths in the reasoning. They evaluate the effect of this strength on the overall strength of the reasoning with some precision. Inappropriate forms of evaluation may occur. Their language is clear and appropriate. <i>Candidates have made a mixture of relevant evaluation and irrelevant or inappropriate points in an attempt to evaluate the reasoning.</i>
Level 2 6 – 10	Basic. Candidates tend to come to an overstated conclusion, partially supported by some basic evaluative comments. Candidates tend to make basic, stock comments about the effect of a strength (or weakness) on the overall strength of the argument. They may attribute strength or weakness inappropriately and may disagree with the reasoning or provide counter arguments rather than evaluating. They tend to use language with little precision. <i>Candidates make the odd relevant evaluative point amidst description and irrelevance.</i>
Level 1 1 – 5	Limited. Candidates make random or isolated points of limited comment about the reasoning or paraphrase the reasoning without comment. Candidates at this level characteristically contradict themselves or draw conclusions which do not follow from their reasoning. Awareness of the effect of a weakness on the overall strength of the reasoning is limited – stock comments such as 'this weakens the argument' are often used incorrectly. Answers may be descriptive or garbled. Their use of language is vague. <i>Candidates' responses are overwhelmingly irrelevant, descriptive or wrong.</i>
0	No creditworthy material

Indicative content**Key points**

Overall, we are told of only two benefits of archaeology's association with Indiana Jones: attracting bright young students and attracting funding. It is a strength that the author has selected such important ideas to support his claim, but neither of these is adequately supported to show that it is a significant benefit that actually occurs (rather than just being possible). A third possible benefit might be an outlet for frustrated archaeologists' spirit of imperialist adventure – but we are not really shown that this would be a benefit of the association. It is not shown that these unsupported benefits outweigh the often significant disadvantages of the association with Indy, and the attempts to respond to CA regarding these disadvantages are at times weak and flawed. Holtorf does not, therefore, give very strong support to his claim that, 'Ultimately, archaeology has far more to gain from being associated with characters like Indiana Jones than it has to fear.'

CA: Archaeologists not like Indy – much more support is needed for the RCA that 'movies appealing to mass audiences can be afforded a little licence.' The reference to sci-fi and medical drama is *tu quoque*, and it is uncertain whether they are as far distant from the real thing as Indy. So RCA weak, and especially in the context of whether archaeologists should welcome or distance Indy, this means that the CA that archaeologists are not like Indy still has some force. The association might well be negative.

The Cas in paragraphs 4 and 5 about imperialism and stereotyping are extremely serious things to fear from the connection with Indy. They therefore need a strong response – but the RCA here is very weak. Holtorf seems to be suggesting that a promise to be more realistic is sufficient, and worse, strongly implies in Paragraph 6 with the reference to mass audiences that stereotyping and imperialism are acceptable for mass entertainment.

It is unclear how the spirit of adventure in Paragraph 7 is different from the imperialist adventures characterised in Paragraph 4. This RCA (still to Paragraphs 4 and 5) both misinterprets the opposing argument and commits a causal flaw. No one is suggesting that people like the films *because* of the stereotype. They are suggesting that the negative stereotype is powerful because people like the adventure. Furthermore, the fact that a real archaeologist might be gay or African does not at all show that the stereotype is not a problem. That Indy is in his sixties barely gets away from the stereotype. And citing Lara Croft as a way of getting away from stereotypes is extremely weak, given how sexualised she is. There is therefore almost no satisfactory answer to the Cas raised in Paragraphs 4 and 5 about imperialism and stereotyping, so these remain as significant disadvantages or things to fear.

The public goodwill and attraction of students mentioned in Paragraph 8 is important – but it is waved at rather than demonstrated, and it is not at all clear that the influx of bright young students (presumably white, male and imperialist) outweighs the effect noted in Paragraph 4 about the stereotypes putting students off.

Less significant

The analogy with Greenpeace is interesting, but not relevant to whether archaeology has more to fear or gain from Indy.

Exemplar part answers**Level 2, Basic**

Showing that Indiana Jones films are like medical dramas is very strong. This strengthens the argument because films are for fun, not career documentaries. So having a film about an archaeologist brings benefits.

Level 3, Mostly Clear

The analogy with sci-fi and medical dramas is weak because it is a tu quoque flaw. Just because science fiction doesn't show the way space travel really is doesn't make it right. And science fiction films can be imperialist and full of stereotypes too.

Level 4, Sound, Thorough and Perceptive

Showing that sci-fi and medical dramas do not portray space travel and hospital life accurately does not show that films made for mass entertainment need a little licence. This is a tu quoque flaw – just because unrealistic portrayal is accepted in other areas does not mean that it should be accepted in archaeology. This is therefore a poor response to the counter argument that real archaeologists are not like Indy. We have not been shown that it would not be better if they were like Indy.

Develop your own reasoning

1 Films should aim to present reality as it is.

Write your own argument to support or challenge this claim.

[20]

	Performance Descriptors
Level 4 16 – 20	Cogent. Candidates produce cogent reasoning focussed on the claim given in the question. Most importantly, candidates' reasoning demonstrates an accomplished argument structure using strands of reasoning with examples, reasons and intermediate conclusions giving strong support to the conclusion. Candidates question or define complex or ambiguous terms, such as films, present and reality, and may qualify the conclusion in response to this thinking. Candidates anticipate and respond effectively to key counter arguments. Their language is clear, precise and capable of dealing with complexity. Blips rare.
Level 3 11 – 15	Clear. Candidates produce effective reasoning to support their conclusion. Most importantly, arguments will have a clear structure, which may be simple and precise or attempt complexity with some blips. Examples, reasons and intermediate conclusions generally support the conclusion well with occasional irrelevance or reliance on dubious assumptions. Candidates may attempt to define complex or ambiguous terms such as films, and may anticipate and respond to counter argument. Their language is clear and developing complexity.
Level 2 6 – 10	Basic. Candidates demonstrate the ability to produce basic reasoning with reasons and examples which give some support to their conclusion but may rely on a number of dubious assumptions. Candidates' reasoning has some relevance to the claim given in the question. Clear, straightforward, perhaps simplistic. Occasionally disjointed. Language simple, clear. Candidates may include a counter argument or counter reason, but respond to it ineffectively if at all.
Level 1 1 – 5	Limited. Candidates demonstrate limited ability to reason. They tend to give examples instead of reasoning. Disjointed, incoherent. Reasons often do not support conclusion. There may not even be a stated conclusion. Language vague.
0	No creditworthy material

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