Cambridge International AS & A Level

THINKING SKILLS **9694/43**

Paper 4 Applied Reasoning **May/June 2021**

MARK SCHEME

Maximum Mark: 50

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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

Annotation Qs 1 to 3	Meaning and use
✔	Correct response. Use when a mark has been achieved in Q1, 2 and 3.
NGE	Not good enough. Use in Q1, 2 and 3 when a response is partly correct but is insufficiently creditworthy for a mark to be awarded.
BOD	Benefit of doubt
0	No marks awarded in question
∿	Underline. For material which prevents a mark from being awarded.

Annotation Q4	Meaning and use
S	Creditworthy material in the Structure skill
CON	Main Conclusion
I	Intermediate Conclusion
AE	Argument Element
U	Creditworthy material in the Use of Documents skill
EVAL	Evaluation of documents
C	Comparison of or inference from documents

Q	Creditworthy material in the Quality of Argument skill
T	Treatment of counter-position
L2	Level achieved. Add annotation at the end of Question 4 in the order of S, U, Q from left to right.
✚	Elevated demonstration of a skill Higher mark within a level awarded
▬	Diminutive demonstration of a skill Flaw or weakness Lower mark within a level awarded
SEEN	Examiner has seen that the page contains no creditworthy material Use to annotate blank pages
Highlight	Where helpful, use to identify the part of the answer to which another stamp pertains.

There must be at least one annotation on each page of the answer booklet.

Question	Answer	Marks
1(a)	*Award one mark for each of the following [max 3]:* R1 Wildlife itself can be a major problem for communities. Ev1 Between 2010 and 2015 in Zimbabwe, elephants are estimated to have destroyed over 7000 hectares of crops and wild animals have killed at least 139 people. Ev2 Lions killed four people and 220 cows in Mozambique in 2016. R2/IC (So) these and other animals are often killed by local people, (who then use their habitats to graze their own cattle.) R3 Organised hunting would attach a monetary value to wild animals IC it would give local people a crucial incentive to protect them. A1 That the destruction caused by wildlife is significant enough to constitute a major problem (as compared with other problems). A2 That enough of the money from hunting would go to the local people.	3
	Award 1 mark for identifying two relationships between elements, for example • The first sentence as supports R2 • Ev1 and/or Ev2 support or illustrate R1. • Stating that R2 and R3 jointly support IC. • IC is the conclusion of the paragraph. • A1 and/or A2 are needed to support IC. *Reference to start and end of elements must be unambiguous.* *Sample 4-mark answer* 'Between 2010... Mozambique in 2016.' are pieces of evidence **[2]** that support 'Wildlife itself… for communities.' 'Organised hunting… value to wild animals' supports the IC 'it would give local… protect them **[1]** .' if it is assumed that enough of this money would go to local people. **[1]**	1

Question	Answer	Marks
1(b)	*1 mark for each correctly identified IC (max 3)* *Mark only the first three answers given* • (but) this hasty response from animal rights fanatics is based only on emotion. • (In fact,) making a species profitable could be the best thing we can do for the survival of that species. • (So,) we should not worry about commercial hunting having a negative effect (on, e.g., elephant populations.) • Well-managed trophy hunting is needed to help conservation efforts.	3
1(c)	*1 mark for any of the following* • That the total revenue from photographic tourism would not be similar or more than that from hunting. • That the example of Zimbabwe (where hunting revenue was used to support conservation) will be replicated in other countries.	1

Question	Answer	Marks
2	*2 marks for a developed version of any of the following points* *1 mark for a weak or incomplete version of any of the following points [max 9]* *Paragraph 1:* • *Straw man* – portraying the ethical case against hunting as social media hysteria / the use of the word 'occasionally' could be seen as an attempt by the author to misrepresent the opposing argument. *Paragraph 2:* • *Personal attack (ad hominem)* – conservationists branded as animal rights fanatics whose views are based only on emotion. *(Can also be expressed in terms of conflation.)* • *Counter attack (tu quoque)* – just because there are higher-ranked threats, it does not mean that this one is not significant. *Paragraph 3:* • *Reliance on questionable assumption* – that killing a small proportion of elephants does not cause significant harm to the well-being of the elephant population. • *Weak support* – The figure of 0.23% is irrelevant to what the figure might be if trophy hunting were encouraged. • *Wild analogy* – of farming increasing numbers of domestic species and hunting potentially increasing numbers of wild species. There are many differences between the two situations, such as the difficulty of looking after animals in the wild, so the support for the MC is weak. • *Straw man* – the conservationists' argument is misrepresented as being restricted to ensuring the survival of the species. *Paragraph 4:* • *Weak support* – the benefits of well-managed trophy hunting only partially supports the main conclusion about all forms of trophy hunting. • *Conflation* – of 'up to $140 000' in the second sentence with '$140 000' in the last sentence. • *Reliance on questionable assumption* – that the potentially lower individual spend per photographic tourist would not be offset by a higher number of photographic tourists: it seems plausible or even likely that the total revenue could be higher.	**9**

Question	Answer	Marks
2	*Paragraph 5:* • *(Allow: Reliance on questionable assumption* – that the numbers quoted in the examples of destruction caused by wildlife are significantly large, and relatively large compared with other problems associated with living in those areas to constitute a 'major' problem.) • *Reliance on questionable assumption* – that enough of the money from hunting would go to the local people: much of it is likely to be retained by governments or private companies. *Paragraph 6:* • *Restricting the options (false dichotomy)* – the author presents two possibilities – critics of hunting coming up with an alternative or encouraging hunting – as if they are the only possibilities and uses the absence of the first option as sufficient support for the MC.	

Question	Answer	Marks
3(a)	*Award marks from any of the following lines of explanation [max 4]* • The figures are for quantity of ivory seized not hunting **[1]** so the increase could be due to e.g. more operations, better criminal intelligence etc. rather than an increase in hunting **[1]**. • The year in which ivory was seized is not the same as the year in which the respective elephants were hunted **[1]**. • In view of the above two points, a situation where elephant hunting is actually decreasing is consistent with data showing the quantity of ivory being seized as increasing **[1]**. • 'Ivory seized' could include non-elephant ivory **[1]**. • The data stops at 2014, so a significant proportion of data relevant to the claim 'since 2010' is missing **[1]**. It is possible that these three years might represent an atypical peak rather than an ongoing trend **[1]**.	4
3(b)	*1 mark for a version of any of the following points [max 2]* • The data are only estimates, (but the claim is about the actual population). • The degree of accuracy given (88.6%) is inappropriate, given that the data are estimates. • Methods for estimating population size are likely to have changed over time. The 1940 estimate may have been too high, or the 2018 estimate too low, or both.	2

Question	Answer	Marks
4	**'Trade in ivory should be legal.'** ***Example high-scoring answers*** *Argument to support (704 words)* Despite a belief to the contrary by some there is nothing morally wrong about hunting animals *per se*. Hunting is a fundamental part of nature. In nature, predators do not hunt the prey species to extinction and there is evidence from the, admittedly biased, Doc 1 that trophy hunting does not impact significantly on elephant populations. Predation drives evolution. Predators take those individuals who were less well adapted to survival and so the survivors, with the most successful genetics, produce the next generation. In fact, the absence of a predator can have devastating effects on an ecosystem – the ecology of Yellowstone Park improved greatly after the reintroduction of wolves. In the case of elephant hunting, humans are the predator species. without some form of hunting or management the elephant population will increase out of hand. Doc 3 points out that local people will not tolerate elephants if their population becomes so large that they become a problem. Some 'hunting' is necessary and so cannot be morally wrong. The revenue generated by managed elephant hunting and the subsequent trading in ivory could support not only local communities but the conservation of elephants and other wildlife. Doc 1 is about trophy hunting rather than the ivory trade but the principle that money generated from elephants can be used locally is sound. Although Doc 1 is biased, their number of 82 000 in Zimbabwe seems consistent with the total figure for Africa given in Docs 2 and 4. These numbers are also consistent with the Botswanan figures given in Doc 3 which also supports the idea of ivory money being used for conservation projects. The areas in which elephants live do not tend to be wealthy. Documents 1 and 3 mention that local people will not support elephants if they cannot make money from them. Despite the ban in international trade there is still a demand for ivory. If elephants are a source of income, people will exploit this source. Therefore, illegal poaching will happen. Analogous to the constant debate about the legalization of certain drugs, if it is going to happen anyway, we might as well make it legal, as comments C and D in Doc 5 suggest, so it can be controlled more easily. Even the anti-ivory-trade Doc 2 admits that enforcement of the ban on trade is often weak and ineffective.	**27**

Question	Answer	Marks
4	Those who criticise the ivory trade are often guilty of double standards. Elephants are large, iconic and often look 'sad' to human eyes. Those same people appear to have no moral objection to farming other animals. As the author of comment K in Doc 5 suggests, it is difficult to see a fundamental difference between farming sheep and farming elephants for ivory. Some might say that food (from sheep) is more important than decorative ivory (from elephants) but we could eat elephants – as the government report in Doc 3 hints – and we do get wool from sheep. Doc 1's example of the success of chickens assumes that the rearing of chickens does not adversely affect other species but the point that we will look after a species that makes us money is a strong one.	
	We are provided with little evidence about the effect of the ivory trade on elephant numbers. The table in Doc 4 shows a general decline in elephant numbers but this could be due to habitat loss as a result of expanding human population. There is no discernible levelling-off after the introduction of the international ivory ban in 1989 – there is still a significant decrease between 1996 and 2018. In the graph, there appears to be a recent increase in seized ivory. But, as far as we are aware, there has been no significant change in ivory trading laws that might have caused this. The two 'experimental weakenings' mentioned in Doc 2 are not associated with any discernible change in ivory seized and, even if the increase since 2012 is as a result of the 2008 weakening, there is no equivalent rise in 2003 following a 1999 weakening. The most we can conclude from this document is that changes in ivory regulation have no obvious effect on ivory trading or elephant numbers. Therefore, the trade in ivory should be legal.	
	Argument to challenge (696 words)	
	The ban on international ivory trading was put in place in 1989 by the Convention on International Trade in Endangered Species, as mentioned in Doc 2. The credibility of this institution is likely to be high. They will presumably have had access to lots of relevant data and these data will have been interpreted by people with a lot of expertise. They are unlikely to have any significant vested interest outside a general desire to protect the environment, and endangered species in particular. Those parties who would like to see a lifting of the ban, as mentioned in Docs 1 and 3, seem to include: elephant hunters and locals, who are likely to have a financial vested interest; the governments of some countries with elephants, who might be looking for votes from the aforementioned local people, and, in relation to an only slightly different ban discussed in Doc 1, the NRA, who have a well-known bias in favour of anything to do with guns. None of these anti-ban parties appears to have high levels of expertise. So, the side with by far the higher credibility is that which wants to ban ivory trading.	
	Elephant populations have declined dramatically and are continuing to decline. Despite the limited number of data points in the table in Doc 4 the trend is unmistakeable. We need to do everything we can to halt the likely further decline. Whatever the other causes, the ivory trade is contributing to this decline.	

Question	Answer	Marks
4	Any trade in ivory is bad for elephant populations. If any trade is allowed there will be illegal poaching. Legalising a trade sends a message that the product is acceptable and creates demand. There are claims that the money from legal ivory trading could be used to support conservation. Doc 2, whose numbers are corroborated by the table in Doc 4, suggests that this evidence is weak and there is nothing in the other documents to contradict Doc 2's claim. The statistic in Doc 1 about hunting being next to last on a list of threats is about trophy hunting not the hunting of elephants for ivory. The argument in Doc 1 and hinted at by K in Doc 5 that ivory harvesting might be good for elephants as a species ignores the devastating effect of livestock farming on wild species that are not profitable. Domestic species benefit only at the expense of their wild cousins. The current partial ban is flawed. Doc 2 mentions that some trade in antique or non-elephant ivory is currently allowed. However, this loophole can be exploited by illegal poachers who could pass off their own recently killed ivory as antique. Only a total ban would get around this problem. Hunting elephants for ivory is immoral. The exploitation of large wild animals for profit has become increasingly morally unacceptable, as the owner of comment A in Doc 5 hints. As we have come to understand more about how the environment works we have seen the devastating effect on nature of indiscriminate hunting. Comment G in Doc 5 is alluding to the fact that increasing awareness of our duty to protect the planet is not only the cause of such things as banning the trade in ivory it is also their result. The signals sent by such bans make more people aware of the issues and hence lead to beneficial moral outrage at environmental damage. Doc 3 cites this moral outrage as a potential problem that might impact tourist revenue in certain pro-ivory countries. From Doc 3, and by inference from Doc 1, it seems that the argument in such countries is that ivory (and 'hunting tourism') would bring in more revenue than other, e.g. photographic tourism. While Doc 3 does acknowledge that morally offended tourists might take their money elsewhere, Docs 1 and 3 seem to dismiss photographic tourism as a potential alternative. It could be that revenues from current photographic tourism are low because the industry has not developed into the cash cow that it might yet become. There are better ways for countries with an elephant population to make money than trading ivory. For the reasons stated above, the trade in ivory should be illegal.	

Level	Structure*		Use of documents		Quality of argument	
	• Conclusion (MC) • Intermediate conclusions (ICs) • Strands of reasoning • Examples or evidence • Original analogy • Hypothetical reasoning		• Reference to documents • Evaluation of documents • Comparison of documents (corroboration or contradiction) • Inference from documents		• Comprehensive and persuasive argument • Logical order of reasoning • Relevant material • Treatment of counter-positions • Absence of flaws and weaknesses • Non-reliance on rhetorical devices	
3	Excellent use of structural elements: • Precise conclusion • Multiple valid explicit ICs that support the MC • Multiple clear strands of reasoning • Some effective use of other argument elements to support reasoning	7–9	Excellent use of documents: • Judicious reference to at least three documents • Multiple valid evaluative points, clearly expressed and used to support reasoning • Some comparison of or inference from documents	7–9	Excellent quality of argument: • Sustained persuasive reasoning • Highly effective order of reasoning • Very little irrelevant material • Key counter-position(s) considered with effective response • Very few flaws or weaknesses • No gratuitous rhetorical devices	7–9
2	Good use of structural elements: • Clear conclusion • More than one valid IC • Some strands of reasoning • Some use of other argument elements	4–6	Good use of documents: • Relevant reference to at least two documents • At least two evaluative points used to support reasoning • May be some comparison of or inference from documents	4–6	Good quality of argument: • Reasonably persuasive reasoning • Unconfused order of reasoning • Not much irrelevant material • Some counter-position(s) considered with some response • Not many flaws or weaknesses • May be some reliance on rhetorical devices	4–6
1	Some use of structural elements: *There may be:* • Conclusion • Implied ICs • Some strands of reasoning • Some use of other argument elements	1–3	Some use of documents: *There may be:* • Reference, perhaps implicit, to a document • Some evaluation of a document • Some comparison of or inference from documents	1–3	Some quality of argument: *There may be:* • Some support for the conclusion • Some order to the reasoning • Some relevant material • Some counter-position(s) considered with some response	1–3
0	No creditable response	0	No creditable response	0	No creditable response	0

*Cap mark for Structure at 6 if no conclusion given