

# **Critical Thinking**

Advanced Subsidiary GCE **F502/01-02**

Unit 2: Assessing and Developing Argument

## **Mark Scheme for June 2010**

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## Mark Scheme

## Section A

Question	Key	Text	Type	AO
1	A	emails at work	Name argument element (Ev)	AO1
2	A	emails at work	Assumption	AO1
3	C	emails at work	Weaken	AO2
4	D	driving with flu	Name argument element (R)	AO1
5	D	driving with flu	Weaken	AO2
6	A	obesity	Name Appeal	AO2
7	D	obesity	Name argument element (R)	AO1
8	B	obesity	Draw Further Conclusion	AO1
9	B	young drivers	Assumption	AO1
10	A	young drivers	strengthen	AO2
11	D	young drivers	What is weakness?	AO2
12	A	hedgehogs	Identify Main Conclusion	AO1
13	C	hedgehogs	Flaw (pick from list)	AO2
14	D	knife crime	Name argument element (R)	AO1
15	C	knife crime	What is weakness?	AO2

**Section A Total = [15]**

### Analysis of Multiple Choice Passages & Answers

#### Q1, 2 & 3

- Ev – Researchers have found that the average employee does just four hours of productive work a day.
- R – The remaining time is spent fielding unnecessary phone calls and emails, or surfing the Internet and gossiping.
- Ev – The study also showed that the most irritating interruptions come from internal emails.
- MC – To increase productivity, companies should ban emails between employees working in the same room.

**Q1 Key – A –** see above

**Q2 Key – A –** If this is not the case then there is no reason for internal emails to be banned by companies. It is necessary for the conclusion to be drawn.

**B –** Irrespective of whether this is true or not, it is not needed for the conclusion to be drawn as it does not state whether emails are linked to the problem.

**C –** This is not necessary for the conclusion to be drawn. If anything, if this assumption is true then it might serve to weaken the argument, making it harder for the conclusion to be drawn.

**D –** This is given in the article with the statement that the *average* is four hours of productive work a day. By definition the average has to be representative of employees. It may not be for some, but this would not stop the conclusion from being able to be drawn.

- Q3 Key – C –** This gives a positive reason for internal emails other than gossiping or redundant messages. It makes it harder to draw the conclusion thus weakening the argument.
- A –** The ban is on internal emails, so presumably employees could still gossip (just not via email) and surf the internet. The fact that it might cause some employees to be unhappy because it curbs some enjoyment is not as much of a weakness in the argument as option C.
- B –** This does not relate to the conclusion, which refers to stopping internal emails.
- D –** This would strengthen the argument, giving another reason to support the ban (albeit an appeal to popularity).

**Q4 & 5**

- R –** Car drivers with a bad cold or a case of flu can be significantly affected in their ability to drive safely.
- Ev –** Research has shown that on average people with bad colds scored 11% worse on hazard-spotting tests and had 8% longer reaction-times than healthy people.
- Ev –** This is equivalent to the reduction caused by drinking a double whisky.
- R –** We accept the law restricting driving under the influence of alcohol ...
- MC –** ... so should accept a similar one restricting driving under the effects of a cold.

**Q4 Key – D –** see above

- Q5 Key – D –** This weakens the argument significantly as it is no longer possible to conclude from the evidence that this group's driving had been hampered by them having colds, thus the first reason is not supported.
- A –** This would reduce the scale of the problem but would not stop the risk, so the argument can still stand.
- B –** This only weakens the argument if the symptoms that can be relieved are those that affect driving. As this is unspecified it does not necessarily weaken the argument and certainly not as much as D.
- C –** This can be true and driving ability still as hampered, so it does not weaken the argument.

**Q6, 7 & 8**

- R –** "The threat to Britain and to her National Health Service is very serious"
- R/Ev –** "Successive governments have all produced action plans against the problem, but it has been on the increase since the 1970s in Britain."
- R –** It is predicted that by 2025 the number of people with type II diabetes, most often caused by obesity, will be twice what it is now.
- MC –** It is clear that Government plans to tackle obesity have not been effective.

- Q6 Key – A –** The reasoning for the conclusion that the Government has not been effective comes from the public health expert's statements and relies on his authority as an expert to be convincing.
- B –** The argument does not rely on emotive reasoning or an appeal to people's emotions.
- C –** There is a statement about the past with respect to successive governments failing but this is not relied upon as being true in the future in the conclusion that *this* Government's plans have not been effective.
- D –** There is not an appeal to a popular view anywhere in this argument.
- Q7 Key – D –** This is a reason that supports the conclusion that obesity has not been tackled effectively, if it is predicted to double in 15 or so years.
- A –** This does not argue against the conclusion.
- B –** This is not a reason that depends on some initial condition being true, (eg in the form of if ...then ...) so is not a hypothetical reason.
- C –** This gives a reason for the main conclusion but does not have any reasoning supporting it, so cannot be thought of as an intermediate conclusion.
- Q8 Key – B –** This follows on from the conclusion that the Government's plans have not been effective given that a problem with obesity has been outlined with the prediction.
- A –** This does not follow as well from the statement, but not the argument as a whole, which is about tackling obesity as an issue not the conditions that come from it.
- C –** This is perhaps one way to deal with obesity but there is no evidence given that it is an effective way or the best way; as such this conclusion cannot be as safely drawn as B.
- D –** We cannot draw this generalised conclusion from this one narrow example.
- Q9, 10 & 11**
- Ev –** Young drivers in London hold 8% of driving licenses yet they are involved in 18% of collisions.
- R –** They need to be better educated about noticing hazards, the dangers of driving quickly, and in general taking road safety more seriously.
- MC –** The Government should ensure that more resources are put into the education to increase the quality of driving.
- Q9 Key – B –** This is an unstated assumption which is necessary to draw the conclusion that efforts need to be put into educating the young before they become drivers. If the young drivers are innocent of causing the collisions, then the resources will be mostly wasted.
- A –** We do not need to assume they are schoolchildren as the evidence makes no reference to schoolchildren. Also education does not have to happen to schoolchildren only, so this is not necessary.

- C** – If true, this could help to explain why there is a disparity between number of licenses and of collisions; however this does not need to be true for the conclusion to be drawn and is unrelated to it.
- D** – This would weaken the argument if true, so we certainly do not need to assume it to draw the conclusion.
- Q10 Key – A** – This gives an extra reason to support the conclusion that educating in road safety is the solution to the problem, so it strengthens the argument. It could be seen as an appeal to history, but it is reasoning that does support and is related to the conclusion, so it strengthens.
- B** – The evidence does not relate to owning cars as opposed to driving cars, neither does the reasoning. This is therefore on the face of it an irrelevant point to the conclusion and does not strengthen.
- C** – This is an appeal to popularity and is also not necessarily evidence that there is a problem with young people driving so it does not strength the conclusion as it is not particularly relevant to it.
- D** – It is unclear whether this makes the roads less or more likely to cause collisions. It also has no bearing on the conclusion regarding road safety and young drivers, so does not obviously strengthen the argument.
- Q11 Key – D** – The evidence supporting the argument hints that there are more crashes than there should be using the number of licenses as indicative of number of drivers. If it is not indicative then this weakens the evidence and therefore the reasoning using it.
- A** – It is hard to accept this statement without any other figures. Compared to 8% of drivers it is not small.
- B** – The evidence is given as showing a problem in London. The fact that the figures may vary across the country does not weaken the general conclusion unless the figures showed opposite trends elsewhere in the country.
- C** – I think the fact that it does not give a guarantee is not to be considered a weakness. There are very few initiatives which are guaranteed to produce any specific result.
- Q12 & 13**
- Ev** – Since 2001, the number of hedgehogs found dead on the roads has declined by more than 7.5% per year.
- R** – [eco-tunnels] have clearly been successful in reducing hedgehog deaths on roads.
- MC** – All new major roads should have eco-tunnels.
- Q12 Key – A** – see above
- Q13 Key – C** – The decline in road deaths occurred after the eco-tunnels, so is being assumed to be because of the eco-tunnels. It could, however be for other factors such as a decrease in hedgehog population [bizarrely the way

hedgehog population is counted is by the amount of road kill, so this is all a bit circular].

- A** – Eco-tunnels are not being confused as being sufficient to stop road deaths, just being put forward that they can help so they should be built.
- B** – The evidence is general and unspecific in terms of areas and years, and the conclusion is narrowly focussed on eco-tunnels and protecting hedgehogs, so there is no generalisation occurring.
- D** – The argument is not leading towards a far-fetched conclusion or effect – so there is not a slippery slope occurring here.

#### Q14 & 15

- Ev – In the last year only 1 in 17 teenagers convicted for carrying a knife ended up in jail.
- R – The overwhelming majority of youths convicted for carrying a knife in public are not sent to prison.
- IC – This undermines public confidence in the justice system.
- R – A Conservative Party spokesman commented that a tough deterrent is needed and that the courts should use the powers they have been given.
- MC – The courts must increase the percentage of cases which result in prison sentences.

**Q14 Key – D –** see above

**Q15 Key – C –** The argument is assuming that the only method for restoring public confidence is by being tougher on crime in terms of prison sentencing, but if there are other methods then this weakens the conclusion as they should be considered too.

- A** – This does not weaken as it could work either way depending on the direction of the change. Also, the problem that is here and now arguably needs dealing with now.
- B** – At no point does the argument mention knife-use as opposed to knife-carrying, so this criticism is not fair and is not a weakness.
- D** – If it is not it may make the reasoning less of an appeal to authority, but does not necessarily weaken the argument if the content has merit to it.

Section B – Analysing and Evaluating Argument		
Question Number	Answer	Max Mark
16 (a)	<p><b>State the <u>main conclusion</u> of the argument within paragraphs 1 to 5.</b></p> <p><b>3 marks</b> – For precisely stating the argument element in the exact words of the author.</p> <p><b>2 marks</b> – For precisely stating the argument element in the exact words of the author but adding information or missing out information.</p> <p>OR For a reasonably precise statement of the argument element which includes minor paraphrases.</p> <p><b>1 mark</b> – For a less accurate statement of the argument element which has the gist but lacks precision.</p> <p>OR For precisely stating the intermediate conclusion directly supporting the main conclusion in the exact words of the author.</p> <p><b>0 marks</b> – For a statement of an incorrect part of the text.</p> <p><b>NB If candidates leave sections out by using ellipses (...) then credit only what is seen without filling in the gaps.</b></p> <p><b>Any words in brackets are not required but candidates should not be penalised if these words are included.</b></p> <p><b>3 marks:</b></p> <ul style="list-style-type: none"> <li>Zookeepers must be required to do everything within their power to save the lives of baby animals.</li> </ul> <p><b>Examples for 2 marks:</b>  <b>Less accurate statements of MC:</b></p> <ul style="list-style-type: none"> <li>Zookeepers should do everything within their power to save the lives of baby animals.</li> <li>Zookeepers must be forced to do everything within their power to save the lives of baby animals.</li> <li>Zookeepers must do everything to save the lives of baby animals.</li> </ul> <p><b>Example for 1 mark:</b>  <b>For the gist of the MC:</b></p> <ul style="list-style-type: none"> <li>Zookeepers must save baby animals.</li> </ul> <p><b>Accurate statement of IC:</b></p> <ul style="list-style-type: none"> <li>(so) zookeepers must work harder to care for them.  Replacement of “them” with “<b>baby animals</b>” is acceptable.</li> </ul>	<b>[3]</b>

Section B – Analysing and Evaluating Argument		
16	(b)	<p><b>State <u>one principle</u> given by the author within paragraphs 1 to 5.</b></p> <p><b>2 marks</b> – For precisely stating the argument element in the exact words of the author.</p> <p><b>1 mark</b> - For a less accurate statement of the argument element which has the gist but lacks precision and/or contains additional information and/or misses out information.</p> <p><b>0 marks</b> - For a statement of an incorrect part of the text.</p> <p><b>NB</b> If candidates leave sections out by using ellipses (...) then credit only what is seen without filling in the gaps.</p> <p><b>Any words in brackets are not required but candidates should not be penalised if these words are included.</b></p> <p><b>Examples for 2 marks:</b></p> <ul style="list-style-type: none"> <li>• Human beings / humans have a responsibility to look after the natural world (<i>para 5</i>)</li> <li>• (but) the need to save baby animals' lives is more important than our desire to see animals in their natural state. (<i>para 4</i>)</li> </ul> <p><b>Examples for 1 mark:</b></p> <ul style="list-style-type: none"> <li>• Humans should look after the natural world.</li> <li>• We have a responsibility to look after the natural world.</li> <li>• We should look after the natural world.</li> <li>• Saving animal lives is more important than seeing animals in their natural state.</li> </ul>
		<b>[2]</b>

Section B – Analysing and Evaluating Argument	
16 (c)	<p><b>State the <u>counter-argument</u> given within paragraphs 1 to 5.</b></p> <p><b>FOR EACH PART:</b>  <b>2 marks</b> – For precisely stating the argument element in the exact words of the author.</p> <p><b>1 mark</b> - For a less accurate statement of the argument element which has the gist but lacks precision and/or contains additional information and/or misses out information.</p> <p><b>0 marks</b> - For a statement of an incorrect part of the text.</p> <p><b>NB</b> If candidates leave sections out by using ellipses (...) then credit only what is seen without filling in the gaps.  <b>Any words in brackets are not required but candidates should not be penalised if these words are included.</b></p> <p><b>2 mark examples: (each part worth 2 marks)</b>  <b>Reason</b>  (as) one of the purposes of zoos is to try to show us how animals really are.</p> <p><b>Conclusion</b>  (Many people feel that) it would be better for zookeepers not to intervene in cases like Gana's.  <i>("cases like Gana's" is needed – it is not an example, but a statement of cases for which intervention is necessary)</i></p> <p><b>1 mark examples: (each part worth 1 mark)</b>  <b>Reason</b></p> <ul style="list-style-type: none"> <li>• The purpose of zoos is to try to show us how animals really are.</li> <li>• (Many people feel that) it would be better for zookeepers not to intervene in cases like Gana's (as) one of the purposes of zoos is to try to show us how animals really are.</li> </ul> <p><b>Conclusion</b></p> <ul style="list-style-type: none"> <li>• (Many people feel that) it would be better for zookeepers not to intervene.</li> <li>• (Many people feel that) it would be better for zookeepers not to intervene in cases like Gana's (as) one of the purposes of zoos is to try to show us how animals really are.</li> </ul> <p><b>NB</b> If the order is reversed between reason and conclusion then a maximum of 2 marks is possible.  <u>For each part in wrong place:</u></p> <ul style="list-style-type: none"> <li>• If precise, but in the wrong section, then worth 1 mark.</li> <li>• If imprecise and in the wrong place, then worth 0 marks.</li> </ul> <p><b>Example of 1 mark overall:</b>  <b>Reason</b>  It would be better not to intervene in cases like Gana's. (<i>imprecise</i>)  <b>Conclusion</b>  One of the purposes of zoos is to try and show us how animals really are. (<i>precise</i>)</p>

[4]

<b>Section B – Analysing and Evaluating Argument</b>	
17	<p><b>In paragraph 2 the author uses evidence to support the claim that zoos are dangerous places for baby animals. Explain <u>one weakness</u> in the way the author has used evidence to support this claim.</b></p> <p><b>3 marks</b> – Clear statement of a weakness with a clear explanation why the evidence fails to support the author’s claim.</p> <p><b>2 marks</b> – Clear statement of a weakness and attempted explanation why the evidence fails to support the author’s claim.</p> <p>OR Simple statement of a weakness and clear explanation of why the evidence fails to support the author’s claim.</p> <p><b>1 mark</b> – A simple statement of a weakness.</p> <p><b>0 marks</b> – No creditworthy material.</p> <p><b>Examples for 3 marks:</b></p> <ul style="list-style-type: none"> <li>v. We don’t know how many baby mammals there are in captivity, so 2,000 could be an insignificant proportion. In which case, zoos may not be dangerous at all.</li> <li>w. The evidence is about baby mammals and the claim is about baby animals. Even if zoos are dangerous for baby mammals, they may not be for baby animals generally.</li> <li>x. The number of deaths do not show that there is danger because these could have been caused by natural causes.</li> </ul> <p><b>Examples for 2 marks:</b></p> <ul style="list-style-type: none"> <li>v. We don’t know how many baby mammals there are in captivity, so 2,000 could be an insignificant proportion.</li> <li>w. The evidence is about baby mammals and the claim is about baby animals.</li> <li>x. Number of deaths does not necessarily indicate that the zoo is dangerous.</li> </ul> <p><b>Partial credit</b></p> <ul style="list-style-type: none"> <li>y. We don’t know what the death rate is in the wild, so there is no reference or comparison point to assert that zoos are dangerous</li> </ul> <p><b>Examples for 1 mark:</b></p> <ul style="list-style-type: none"> <li>v. We don’t know how many baby mammals there are in captivity.</li> <li>w. (Baby) animals and (baby) mammals are different.</li> <li>x. The baby mammals could have died from natural causes.</li> <li>y. We do not have a comparison for the deaths in the wild.</li> </ul> <p><b>Examples for 0 marks:</b></p> <ul style="list-style-type: none"> <li>• We don’t know how many baby mammals there are in the world.</li> <li>• There is no evidence to say this many have died.</li> <li>• We do not know where this evidence has come from, it lacks credibility.</li> <li>• This is a small number considering the number of zoos that exist.</li> </ul>

[3]

<b>Section B – Analysing and Evaluating Argument</b>		
<b>18</b>	<p><b>In paragraph 2, it says that zoos “are dangerous places for baby animals.” State what we have to assume for this to support the claim that “zookeepers must work harder to care for them.”</b></p> <p><b>3 marks</b> – For an accurate statement of the assumption.</p> <p><b>2 marks</b> – For a less precise statement of the assumption, perhaps too strong.</p> <p><b>1 mark</b> – For the essence of an assumption, perhaps stated as a challenge.</p> <p><b>0 marks</b> – No creditworthy material.</p> <p><b>Examples for 3 marks:</b></p> <ol style="list-style-type: none"> <li>1. That there is more zookeepers can do to improve the safety in zoos for baby animals.</li> <li>2. That it is possible for zookeepers to work harder.</li> <li>3. That zookeepers have not been working hard enough.</li> <li>4. If zookeepers work harder, zoos will be less dangerous for baby animals.</li> <li>5. The baby animals are not being looked after well enough, to keep them from danger.</li> </ol> <p><b>Examples for 2 marks:</b></p> <ol style="list-style-type: none"> <li>6. That zookeepers have caused the deaths of baby animals.</li> <li>7. Zoos are only dangerous for baby animals if they are not cared for properly.</li> <li>8. That it is the fault of zookeepers that zoos are dangerous places for baby animals.</li> <li>9. Zookeepers are not working hard.</li> <li>10. The baby animals are not being looked after well enough.</li> <li>11. Zoo keepers may be able to reduce the level of danger.</li> </ol> <p><b>Examples for 1 mark:</b></p> <ol style="list-style-type: none"> <li>12. That zookeepers don’t care about the animals.</li> <li>13. The baby animals are not being looked after.</li> </ol> <p><b>Examples for 0 marks:</b></p> <ol style="list-style-type: none"> <li>14. Zookeepers need to get more involved in the upbringing of baby animals.</li> <li>15. Zoos are not a safe place for baby animals.</li> <li>16. Zoos are dangerous places.</li> </ol>	<b>[3]</b>



Section B – Analysing and Evaluating Argument	
20	<p data-bbox="288 264 1318 331"><b>In paragraph 3, it states that “At least this zoo is now starting to re-think its policies because it has received some highly negative publicity”.</b></p> <p data-bbox="288 365 1129 398"><b>Is this an argument or an explanation? Justify your answer.</b></p> <p data-bbox="288 432 1251 499"><b>3 marks –</b> For a clear justification with reference to the text why it is an explanation.</p> <p data-bbox="469 533 1302 633"><i>Note that the candidate does not need to explain why it is an explanation and then also explain why it is not an argument; the former is worth 3 marks itself if clear and text-referenced.</i></p> <p data-bbox="288 667 1302 734"><b>2 marks -</b> For a statement that it is an explanation with a definition of what that is, without clear reference to the text.</p> <p data-bbox="352 768 1318 835">OR For a statement that it is an explanation with a justification of why it is not an argument.</p> <p data-bbox="352 869 1318 936">OR For a statement that it is an explanation with an attempt to justify that has value but lacks clarity to be labelled a clear justification.</p> <p data-bbox="288 969 994 1003"><b>1 mark -</b> For a statement that it is an explanation.</p> <p data-bbox="288 1037 794 1070"><b>0 marks –</b> No creditworthy material.</p> <p data-bbox="288 1104 603 1137"><b>Examples for 3 marks:</b></p> <ul data-bbox="288 1149 1318 1384" style="list-style-type: none"> <li>• It is an explanation because the ‘highly negative publicity’ is why the zoo is rethinking its policies.</li> <li>• It is an explanation because the conclusion ‘this zoo is now trying to rethink its policies’ is a statement of fact, it is not something the reader is being persuaded to accept.</li> <li>• It is an explanation because the conclusion is given as something which has followed as a result of negative publicity.</li> </ul> <p data-bbox="288 1417 595 1451"><b>Examples for 2 marks</b></p> <ul data-bbox="288 1462 1318 1664" style="list-style-type: none"> <li>• It is an explanation because it gives causes not reasons for the conclusion.</li> <li>• It is an explanation because it is not trying to persuade us.</li> <li>• It is not an argument because it is not trying to persuade us.</li> <li>• It is not an argument because it is not trying to persuade us, it just details why things are as they are.</li> </ul> <p data-bbox="288 1697 579 1731"><b>Examples for 1 mark</b></p> <ul data-bbox="288 1742 839 1832" style="list-style-type: none"> <li>• It is an explanation.</li> <li>• It is not an argument.</li> <li>• It tells us why the zoo did what it did.</li> </ul>

**[3]**

Section B – Analysing and Evaluating Argument		
21	<p>Evaluate <i>adam22</i>'s <u>reasoning</u> in "Have your say". In your answer you should consider some of the following: flaws, appeals, use of examples, hypothetical reasoning, assumptions or other evaluative points.</p> <p>You should make <u>at least three</u> points.</p> <p>Credit only the 3 <u>best</u> responses.</p> <p>For each point of evaluation, a maximum of 3 marks:</p> <p><b>3 marks      STRONG</b> A statement of what the strength / weakness is, with a clear explanation in context of why it does / does not give strong support.</p> <p><b>2 marks      BASIC</b> A statement of what the strength / weakness is, giving a basic explanation in context, of why it does / does not give strong support to the argument.</p> <p><b>1 mark      SUPERFICIAL</b> Simple statement of a weakness or strength, with a limited or no attempt to explain or justify.</p> <p><b>0 marks:</b>      No creditworthy material or simplistic counter-assertions.</p> <p><b>Examples for 3 marks:</b></p> <ul style="list-style-type: none"> <li>v. The author makes a slippery slope flaw, where the argument goes from Knut to leading towards extinction, which requires unnecessary assumptions.</li> <li>w. (Causal flaw / Post Hoc) – Knut's dependency may have followed from the intervention, but the first may not be the cause of the second.</li> <li>x. There is a hasty generalisation from the example of Knut to the general point about future cases of intervention with polar bears / other animals. But Knut might be unusual.</li> </ul> <p><b>Examples for 2 marks:</b></p> <ul style="list-style-type: none"> <li>v. There is a slippery slope from Knut to extinction – it is too far too fast.</li> <li>w. The intervention may not be what caused Knut to be completely dependent.</li> <li>x. The example of Knut cannot be generalised to everything.</li> </ul> <p><b>Examples for 1 mark:</b></p> <ul style="list-style-type: none"> <li>v. It is not necessarily going to end with extinction.</li> <li>w. There may have been other reasons why Knut became dependent.</li> <li>x. Hasty generalisation about Knut.</li> </ul>	[9]

	<p><b>Example evaluative points (NOT necessarily exemplars for 3 marks):</b></p> <p><b>Many of these could be written in the form of an assumption answer.</b></p> <ol style="list-style-type: none"><li>1. Hasty Generalisation – from this polar bear to all future cases of intervention with other animals.</li><li>2. Post Hoc – the intervention may not be what caused Knut to be completely dependent.</li><li>3. Appeal to History – just because after 3 years no mate was found, does not mean that it will remain unsuccessful.</li><li>4. False Cause – Knut may be unable to find a mate for other reasons than being brought up by humans as sometimes animals who have not received intervention also don't mate.</li><li>5. Slippery Slope – extending the argument to helping the species to die out by intervening is ridiculous.</li><li>6. Arguing to another unrelated conclusion – the fact the bear survived is the intervention working – whether or not it then later finds a mate is unrelated to its initial survival and the aims of intervention.</li><li>7. Non-sequitur – by keeping Knut alive cannot move towards extinction of species.</li><li>8. Hypothetical Reasoning – artificial insemination means that reproduction can continue even if Knut dies (sperm banks).</li><li>9. The author assumes that without a mate, there are no other ways of reproducing, whereas this could be achieved through other methods.</li><li>10. The author assumes that dependence on the zoo-keepers is a bad thing, whereas it may not be.</li><li>11. There is an assumption that as the cost was huge, it was a negative thing to do. This is inconsistent with the author's inference in the last sentence about extinction needs to be avoided.</li></ol>	
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Section C – Developing Your Own Arguments	
22 (a)	<p><b>There is a long standing debate about whether we should carry out scientific research on animals or not.</b></p> <p><b>Give <u>two</u> reasons which <u>support</u> the claim that we should carry out scientific research on animals.</b></p> <p><b>For each reason:</b></p> <p><b>2 marks –</b> For a reason that gives clear support to the claim that research should occur.</p> <p><b>1 mark -</b> For a statement that shows some awareness of the issue but gives limited support perhaps by requiring an obvious and unreasonable assumption to be made or by lacking some plausibility or by being vague.</p> <p><b>0 marks -</b> No creditworthy material. Something unrelated so it does not give support, or a statement that is too lacking in plausibility to offer recognisable support.</p> <p><i>If the reason is repeated in parts (i) and (ii), credit only once.</i></p> <p><b>Examples for 2 marks:</b></p> <ul style="list-style-type: none"> <li>• Carrying out research on animals means medicines can be tested before use without risking dangers to humans.</li> <li>• It is better than testing / doing research on humans.</li> <li>• By carrying out research on animals we further our understanding of biology and medicine.</li> <li>• By testing on animals, this can be to the future benefit of animals as well as humans.</li> </ul> <p><b>Examples for 1 mark:</b></p> <ul style="list-style-type: none"> <li>• Research on animals furthers our knowledge.</li> <li>• Medicines can be tested.</li> <li>• Animals do not have feelings.</li> </ul>

[2,2]

	<p><b>(b) Give <u>one</u> reason that <u>supports</u> the claim that we should <u>not</u> carry out scientific research on animals.</b></p> <p><b>2 marks –</b> For a reason that gives clear support to the claim that research should <b><u>not</u></b> occur.</p> <p><b>1 mark -</b> For a statement that shows some awareness of the issue but gives limited support perhaps by requiring an obvious and unreasonable assumption to be made or by lacking some plausibility or by being vague.</p> <p><b>0 marks -</b> No creditworthy material. Something unrelated so it does not give support, or a statement that is too lacking in plausibility to offer recognisable support.</p> <p><b>Examples for 2 marks:</b></p> <ul style="list-style-type: none"><li>v. Humans being different to animals makes testing invalid.</li><li>w. It is wrong to put animals through suffering.</li><li>x. It is cruel – <i>developed or qualified with HOW or WHY it is cruel.</i></li><li>y. Animals suffer unnecessarily (from testing / research).</li><li>z. Previous research shows it does not work / unreliable / invalid.</li></ul> <p><b>Examples for 1 mark:</b></p> <ul style="list-style-type: none"><li>v. Animals are different from humans.</li><li>w. It is wrong.</li><li>x. It is cruel.</li><li>y. Animals suffer (from testing / research).</li><li>z. It has not worked in the past.</li></ul>	<b>[2]</b>
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Section C – Developing Your Own Arguments		
	<p><b>Performance descriptors for questions 23 and 24</b></p> <p><b>10–12 marks – (level 4)</b> Candidates present their own relevant and plausible argument with a clear structure where the conclusion is supported by at least three relevant reasons and at least one well-supported intermediate conclusion. The main conclusion is precisely and correctly stated. The argument is sound in general. Flaws / weakness, if present, are subtle. The argument may also contain other argument elements which are effectively used, eg evidence/examples, counter-assertion. Grammar, spelling and punctuation are very good: errors are few, if any.</p> <p><b>7 – 9 marks – (level 3)</b> Candidates present their own argument that contains at least three relevant reasons and there is an intermediate conclusion. Some flaws / weaknesses may be present but are not intrusive. The main conclusion is clearly stated, perhaps with minor paraphrase(s). There may be signposted and functional use of other argument elements. Grammar, spelling and punctuation are good: errors are few.</p> <p><b>4 – 6 marks – (level 2)</b> Candidates present a basic argument that contains at least two relevant reasons. There is an attempt to form an intermediate conclusion. The conclusion is stated but may have a slightly different wording and/or meaning to that required. Basic and lacks plausibility. Other argument elements may be included but they give little or no support to the argument. Grammar, spelling and punctuation may have errors which are sometimes intrusive.</p> <p><b>1 – 3 marks – (level 1)</b> There is a limited attempt at an argument, which is related to that asked for in the question. A reason is given. The conclusion may be not stated, or different from that asked for in the question. There is no attempt to form any intermediate conclusions. Grammar, spelling and punctuation may be poor with errors which are intrusive.</p> <p><b>0 marks</b> – No creditworthy material.</p>	

Level	Reason	Intermediate Conclusion	Quality of Argument	Conclusion	Other Argument Elements (if used)	GSP
4 10-12 marks	3 or more relevant and plausible reasons	Well supported IC	Sound in general. Flaws / weaknesses, if present, are subtle	Precise and correctly stated	Relevant and effective use	<ul style="list-style-type: none"> <li>• Very good</li> <li>• Errors few if any</li> </ul>
3 7-9 marks	3 or more relevant reasons	IC	Some flaws / weaknesses may be present but are not intrusive	Clearly stated, may have minor paraphrase(s)	Signposted and functional use	<ul style="list-style-type: none"> <li>• Good</li> <li>• Errors few</li> </ul>
2 4-6 marks	2 or more relevant reasons	IC attempt	Basic and lacks plausibility. Obvious flaws / weaknesses may be present	Stated. May have different wording / meaning but right direction	Weak or little support to the argument	<ul style="list-style-type: none"> <li>• Basic</li> <li>• Errors may be intrusive</li> </ul>
1 1-3 marks	1 reason	No attempt at IC	Limited	May be unstated or different but related to that required (eg opposite to what asked for)	Examples or evidence if given are in the place of reasoning	<ul style="list-style-type: none"> <li>• Poor</li> <li>• Errors impede comprehension</li> </ul>

## Section C – Developing Your Own Arguments

23

“We should do everything in our power to prevent the extinction of any species of animal.”

Write your own argument to support this claim.

Marks will be given for a well-structured and developed argument. You should include at least three reasons, a well-supported intermediate conclusion and a main conclusion. Your argument may also contain other argument elements.

You may use information and ideas from the passage, but you must use them to form a new argument. No credit will be given for repeating the arguments in the passage.

If candidates **CHALLENGE** the claim, a maximum of 3 marks.

**Acceptable conclusions - examples**

- We should prevent the extinction of any species of animal.
- We should stop animal extinctions. (*lacks precision*)

**Examples of acceptable points:**

- Many extinctions are caused by humans, so we should prevent our effect.
- We should prevent animals from being killed in general.
- If we lose species it is irreversible.
- Animals lost from the eco-system may have been crucial to it.
- Some species may be useful for humans and therefore need protection.

[12]

	<p><b>Sample answer for 12 marks</b></p> <p>Humans are the most intelligent life form on the Earth and we have a responsibility to look after lesser life-forms. Other species aren't as strong as the human race so we should protect them.</p> <p>All animals and species have roles within the balance of the food chain – if whole species become extinct then it can upset the eco-systems and causes other negative impacts, so therefore we should try to maintain and restore natural food chains.</p> <p>Some people may say that we shouldn't interfere with natural occurrences as evolution relies on the process of natural selection. However humans are often the cause of extinction/depletion of species. For example, elephants are protected because of people hunting them.</p> <p>So we should correct the wrongs we have already made. I conclude from my reasoning that we should do everything we can to prevent the extinction of any species of animal.</p> <p><b>Sample answer for 5 marks</b></p> <p>I believe we should do everything in our power to prevent the extinction of any species of animals because it simply keeps biodiversity on the planet. A variety of animals means a range of species can live under the same ecosystem.</p> <p>Secondly, research by a university showed that 2% of the planet's animal species die out due to a lack of prey. Therefore, saving animals from extinction may save other animals from extinction as well. This is because we may fix a link in a food chain, which is a natural chain, so animals do not starve to death and eventually become extinct.</p> <p>Some people say that eating animals is wrong, however saving animal species may mean more food for humans. Therefore saving animal species may decrease world hunger. How can anyone say that eating animals is wrong to stop starvation?</p>	
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## Section C – Developing Your Own Arguments

24

“The existence of zoos is a good thing.”

Write your own argument to challenge this claim.

Marks will be given for a well-structured and developed argument. You should include at least three reasons, a well-supported intermediate conclusion and a main conclusion. Your argument may also contain other argument elements.

You may use information and ideas from the passage, but you must use them to form a new argument. No credit will be given for repeating the arguments in the passage.

If candidates SUPPORT the claim, a maximum of 3 marks.

**Acceptable conclusions - examples**

- Zoos are not a good thing.
- Zoos are bad. (*lacks precision*)

**Examples of acceptable points:**

- Animals should be free not caged.
- Animals do not enjoy being in prison.
- The environments are not the same as in the wild.
- They are expensive to run.
- They take up valuable space which could be used for housing, hospitals, etc.
- Animals in zoos are less capable of breeding.
- Visitors confuse the caged animals as being safe or tame which could cause problems if they meet them in the wild.

[12]

	<p><b>Sample answer for 11 marks</b></p> <p>I think the existence of zoos is a bad thing as it stops the animals from acting as they would in their natural habitat, therefore they can never be released into the wild again.</p> <p>It could also be seen as cruel towards the animals as they are caged up instead of going where they please and this could result in the animals getting stressed or becoming ill.</p> <p>There is also some evidence that animals are more likely to catch diseases in captivity and that they don't breed as well as in the wild. This means keeping the animals in zoos is not really increasing the population by very much anyway.</p> <p>Therefore I do not think zoos are a good thing.</p> <p><b>Sample answer for 7 marks</b></p> <p>There has been recent speculation over the necessity of zoos in the world.</p> <p>Although zoos are a fun and enjoyable place for families, displaying living things on show is a savage way of entertainment. Also keeping animals restricted in a certain area is cruel because if it is wrong for humans to be locked in a cage it is wrong for animals to be locked in a cage as we are both living things. Therefore keeping animals in zoos is unnecessary and cruel.</p> <p>Furthermore zoos will stop animals developing natural skills such as hunting as they are fed by zookeepers. So future generations of animals may lose the ability to hunt and fend for themselves. Therefore the existence of zoos is not a good thing.</p>	
	<b>Section C Total</b>	<b>[30]</b>
	<b>Paper Total</b>	<b>[75]</b>

**Assessment Objectives Grid** (includes QWC)

Question	AO1	AO2	AO3	Total
1-15	8	7		15
16a	3			2
16b	2			2
16c	4			4
17		3		3
18	3			2
19		3		3
20	3			2
21		9		9
24a			4	4
24b			2	2
25			12	12
26			12	12
<b>Total</b>	<b>23</b>	<b>22</b>	<b>30</b>	<b>75</b>

Specification Reference	Question Numbers
3.2.1.1 understand and use specific terms	1,4,6,7,12,13,14,16,19,21
3.2.1.2 identify and explain the purpose of argument elements	1,4,7,8,12,14,16,21
3.2.1.3 explain the difference between explanation and argument	1,4,20
3.2.1.4 recognise explanations in longer arguments	20
3.2.2.1 assessing strengths or weaknesses within arguments	2,3,4,5,6,9,10,11,15,17,18,21
3.2.2.2 identify and explain flaws within arguments	13,21
3.2.2.3 identify and describe appeals within arguments	6,19,21
3.2.3 develop own reasoned arguments	22,23,24

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