OCR
Oxford Cambridge and RSA

Level 2 Award

Thinking and Reasoning Skills

Unit **B902**: Thinking and Reasoning Skills Case Study

OCR Level 2 Award

Mark Scheme for June 2017

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

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These are the annotations, (including abbreviations), including those used in RM Assessor, which are used when marking

Annotation	Meaning of annotation
	Demonstrates a point which can be credited with a mark.
	Blank page
	Answer seen where this appears outside the normal viewing window for that question

Please use ticks on questions: 5, 7a, 7b, 8a, 8b, 9a, 9b & 11a.

Here are the subject specific instructions for this question paper

This is a Thinking and Reasoning Skills examination paper, so the answers should be assessed against the skills in the specification. Historical knowledge therefore, beyond what candidates have had access to in the pre-release documents, should not be expected and is not being tested. Equally, the use of emotive language, particularly in the extended argument questions testing candidates' skills to develop their own arguments, should be treated with caution if this language is not supported by plausible and relevant reasoning.

Question			Answer/Indicative content	Mark	Guidance
1	(a)		Credit 1 mark for ticking the first box for 'argument'.	1	
	(b)		Credit 1 mark for any correctly identified assumption Creditworthy examples: • That the money he pays back will be used to compensate those who suffered. • That the money won't be lost in legal red tape. • That those who make people suffer have a duty to provide compensation.	1	Assumptions have to be unstated, therefore no credit can be given to answers which simply reflect what is being said in the extract. e.g. *Money can compensate for a ruined life.*
2	(a)	(i)	Credit 1 mark for underlining '(so) he shouldn't be ordered to pay back his winnings'.	1	
		(ii)	Credit 1 mark for putting brackets around either of the following: • (To justify taking his prize money away), cycling would have to prove he was the only one doping when he won. • Proving the others in the competition were not doping is impossible.	1	The mark can still be awarded if the first part of the first reason is omitted (as shown by brackets opposite) The mark should not be awarded if both reasons are included within the brackets.
	(b)	(i)	Credit 1 mark for ticking 'joint'.	1	
		(ii)	Credit 1 mark for an explanation that shows an understanding of the joint reasoning. Creditworthy examples: • The two reasons depend on one another to support the conclusion. • Without both reasons, the conclusion doesn't follow.	1	There needs to be understanding demonstrated that the reasons need to work together for the argument or the conclusion to make sense. So no credit can be given for answers which simply say the two reasons are linked together.
3	(a)		Credit 1 mark for writing 'counter-argument'	1	Counter-assertion or counter-claim can both be credited.
	(b)		Credit 1 mark for correctly naming 'straw man'. Credit second mark for an explanation that shows an understanding of the straw man flaw. Creditworthy examples:	2	If the candidate fails to identify this as a straw man flaw, but provides a credit-worthy explanation of the flaw, one mark should be awarded for the explanation

<table>
<tr><th colspan="3">Question</th><th>Answer/Indicative content</th><th>Mark</th><th>Guidance</th></tr>
<tr><td></td><td></td><td></td><td>• It distorts the original point just to knock it down more easily.
• The original argument has been distorted.</td><td></td><td></td></tr>
<tr><td>4</td><td></td><td></td><td>Credit one mark each for answers which provide valid alternative explanations.
Creditworthy examples:
• They are just not good enough to win.
• They are not strong enough.
• They lack the natural talent to win.
• They did not train hard enough.
• They did not train often enough.
• They got injured and have not been able to recover their full strength.</td><td>2</td><td>For credit to be given, answers need to provide <u>alternative</u> explanations, so any answers which focus on their opponents using drugs or cheating should not be credited.

The original argument refers to sportspeople losing time and time again, so answers which provide an alternative explanation that could apply to just one race/event should not be credited: e.g. They were ill or They were injured.
The latter example here differs from the final creditworthy example opposite as failing to recover full strength can apply over an extended period.</td></tr>
<tr><td>5</td><td></td><td></td><td>Credit 1 mark for each correctly placed letter as follows:

<table><tr><td>Ad hominem</td><td>C</td></tr><tr><td>False appeal</td><td>A</td></tr><tr><td>Slippery Slope</td><td>B</td></tr><tr><td>Tu quoque</td><td>D</td></tr></table></td><td>4</td><td></td></tr>
</table>

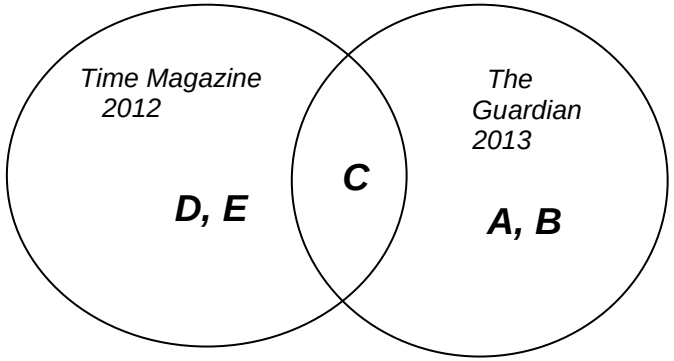
Question			Answer/Indicative content	Mark	Guidance
6			Credit 2 marks for a clear and developed explanation of a valid difference. Creditworthy examples: • Murder takes away the life of somebody else, but taking drugs only directly affects the person himself. • Murder is much more serious as somebody has died. Taking drugs in sport doesn't usually cause death. • Murder is killing someone. Taking drugs just enhances sport performance. They are of a totally different magnitude. • Cheating in sport is nowhere near as serious as killing someone. • If you murder someone you can be sent to prison for life, but taking drugs in sport just gets you banned from playing. Credit one mark for an answer which lacks clarity or which only explicitly refers to one side of the analogy. Creditworthy examples: • Murder is much more serious than taking drugs. • Taking drugs and murder are both bad, but murder is much more serious. • Doping only affects the person doing it. • Murder always results in loss of life.	2	In order to credit both marks here there needs to be explicit reference to both sides of the analogy. Valid, but implicit differences which only reference one side should be awarded 1 mark.

<table>
<tr><th colspan="3">Question</th><th>Answer/Indicative content</th><th>Mark</th><th>Guidance</th></tr>
<tr><td>7</td><td>(a)</td><td></td><td>Credit 1 mark for each correctly placed tick as follows:
<table>
<tr><th></th><th>Can be drawn</th><th>Cannot be drawn</th></tr>
<tr><td>The majority of people surveyed believe that doping should be allowed in some circumstances.</td><td>√</td><td></td></tr>
<tr><td>Harris only used 50 people in his survey.</td><td></td><td>√</td></tr>
<tr><td>25 people believe in better regulations for doping and 25 people believe the regulations do not need to be improved.</td><td></td><td>√</td></tr>
<tr><td>20% of those surveyed believe that all sports should put an age restriction on doping.</td><td></td><td>√</td></tr>
</table></td><td>4</td><td></td></tr>
<tr><td></td><td>(b)</td><td></td><td>Credit up to 2 marks for a clear, relevant weakness.

2 mark examples:
• He only had 50 completed responses, so it’s not representative enough.
• He didn’t ask people to say which sport they are part of – if all 50 are cricketers it wouldn’t be representative of all sportspeople.
• He only asked people who are at school, not any professional sportspeople, so he can’t conclude about sportspeople in general.

1 mark answers will lack development and/or clarity.

1 mark examples:
• He only asked 50 people
• He only asked sportspeople from local schools
• We don’t know which type of sportspeople he asked.
• It’s not representative.</td><td>4</td><td>To be worthy of credit, answers need to be focused on the weakness in the survey, not simply on the validity of the conclusions drawn.</td></tr>
</table>

Question			Answer/Indicative content	Mark	Guidance
8	(a)		Credit 1 mark for each correctly placed letter as follows: A - Armstrong confesses to doping (2013 only). B - Armstrong believes is not possible for a human being to naturally win the Tour de France seven consecutive time (2013 only). C - Other cyclists at that time were doping (both). D - Armstrong was accused of trafficking EPO (2012 only). E - Armstrong successfully passed many doping tests (2012 only).	5	*Time Magazine, 2012 The Guardian, 2013* 

Question			Answer/Indicative content	Mark	Guidance
8	(b)		Award up to 2 marks for each clear and developed explanation of a strength or weakness related to a relevant credibility criterion. 2 mark examples (strength): • Ability to see – he was part of that culture, so if there was a widespread doping trend he would be best placed to know about it. • He is a professional cyclist so he knows and understands fully what was going on with doping (expertise) 2 mark examples (weakness): • He has a vested interest to lie so that his own cheating doesn't seem so bad. • He has a poor reputation as he's already been exposed as a liar and a cheat. Award 1 mark for an answer that lacks clarity or for a partial but clear explanation. 1 mark example (strength): • Ability to see was good because he was part of it. • He's an expert because he's a cyclist. 1 mark examples (weakness): • He lied because he wanted the authorities to go easier on him. • Why would we believe someone who's lied so much in the past?	4	The marks are to be awarded for the quality of the explanation, which may be weakened by the absence of a correctly named criterion or one that does not match the explanation. However, a good explanation that is clear without naming a criterion can still be awarded both marks.

Question			Answer/Indicative content	Mark	Guidance
9	(a)		Credit 1 mark for each reasonable, alternative example. Creditworthy examples: • Wearing glasses/contact lenses to see more clearly • Wearing high heels to be taller • A disabled person using a wheelchair or prosthetic limbs.	2	Answers which refer to taking performance enhancing drugs cannot be credited as these are not taken to correct 'natural disadvantages'.
	(b)		Credit up to 2 marks for each clear and relevant reason that would challenge the view that using drugs to perform better is the same as correcting a natural disadvantage. 2 mark examples: • Using drugs to perform better is taking things a step further than just correcting a disadvantage. It involves trying to get an edge on others of similar ability, not just trying to redress the balance to make it fair. • Doing something to correct a natural disadvantage like wearing glasses isn't dangerous, but taking steroids or using EPO can be really dangerous. 1 mark examples: • It's different because getting an advantage is more than correcting a disadvantage. • People take medication when they are feeling under the weather so they can get though a race or a day's work. • People correct natural disadvantages all the time for ordinary, everyday achievements, like wearing glasses for studying to help them pass exams. It doesn't mean that their grade is less deserved than someone with 20/20 vision.	4	Answers here do not need to be confined to the subject of sport. Candidates who answer more generally can access the full range of marks. In order to credit both marks here there needs to be explicit reference to both sides of the comparison. Valid, but implicit differences which only reference one side should be awarded 1 mark.

Question			Answer/Indicative content	Mark	Guidance
10			Marks are to be allocated in accordance with the performance descriptors below. The content for the arguments may be utilised and/or developed from the documents or may be independent of those documents. **Performance descriptions for 7 to 10 marks: Level 3** • The conclusion is precisely stated. • Reasons are provided for the conclusion, which are persuasive, cogent and fully developed. • The structure of the reasoning is clear and explicit and places minimal reliance on assumptions. • Evidence and examples are provided which are both relevant and clearly strengthen the reasoning. • Grammar, spelling and punctuation are good.	10	The main discriminator here in terms of levels is likely to be the quality of the reasoning. The candidates should all have had an opportunity to study the pre-release documents, so developed reasons should be expected in order to reach level 3, making use of evidence and/or examples drawn from the documents or introduced independently. Marks within the levels can be determined by the number of reasons provided and the extent of the evidence or examples provided. **Level 3 Exemplar** *I strongly believe that doping should not be legalised in competitive sport.* *Sport should be a competition between people with talent. The winning person or team should be the one with the most talent, who used their skills most effectively on the day. If you legalised performance enhancing drugs then it would become a competition about who has the best doctor and medical advice and about who can afford the most effective drug. A 100m race wouldn't be won by the runner with the most natural speed, but by the runner with the best mix of chemicals in his body to give him the speed boost he needs. That isn't sport.* *Another key reason why doping should not be legalised is because it is so dangerous. Some treatments might make you faster, stronger or give you greater stamina, but they can also give you cancer, heart problems and other life threatening conditions. The deaths in cycling detailed in Document 5 are proof of this. If doping was legalised more and more sportspeople would be exposed to these terrifying risks in their aim for fame and glory. It is far too big a risk to take. Therefore doping should not be legalised in competitive sport. [10 marks]*

			Performance description for 4 to 6 marks: Level 2 • The conclusion is clearly stated. • Reasons are provided for the conclusion, which are plausible and relevant. • The structure of the reasoning is not fully explicit and does rely on some assumptions. • Evidence and examples are provided which are relevant but are open to challenge. • Grammar, spelling and punctuation are adequate. **Performance description for 1 to 3 marks: Level 1** • The conclusion is imprecise and unclear. • Reasons are undeveloped and only provided weak support for their conclusion. • Structure is either absent or minimal or unclear. • Evidence and examples are poorly developed or explained and are open to obvious counter examples and objections. • Grammar, spelling and punctuation may be inadequate. **Example of Level 1 answer:** **0 marks – no creditworthy material**		**Level 2 Exemplar** *Doping should be legalised. It would make sport so much more exciting if everybody could get faster and faster and stronger and stronger. This would make more people go and watch and get more money to make sport even better.* *Also, legalising drugs would mean that nobody would have to hide what they're doing. No testing would be needed and this would mean sportspeople could just concentrate on training and not have to worry about a tester turning up.* *Drugs could be made safer so nobody dies from taking them and the best sportspeople could carry on playing when they get older because the drugs will help them.* *Sport would be great if drugs were legalised. [6 marks]* **Level 1 Exemplar** *It would be stupid to allow drugs in sport. Look at all the people who have died. We don't want to kill people like Usain Bolt and Anthony Joshua do we?* *Drugs are bad for people. They give you spots and stop you sleeping properly, so how's that going to be good for sport if we just have to watch spotty people who look like they've been up all night.* *Doping wouldn't be fair, so it shouldn't happen. [3 marks]*
11	(a)		Credit 1 mark for each reasonable statement of a counter-example. Creditworthy examples: • Cosmetic surgery. • Laser eye surgery. • Wearing make-up to look younger or prettier. • Working out at the gym to get muscular. • Taking supplements to increase muscle mass. • Eating a good diet to make you slimmer.	2	Answers which relate to enhancements which would only be used by sports people should not be credited: e.g. *clothing which reduces wind resistance*.

Question			Answer/Indicative content	Mark	Guidance
11	(b)		Marks are to be allocated in accordance with the performance descriptors below. **Performance description for 6-8 marks: Level 3** • The conclusion is precisely stated. • At least one reason is provided for the conclusion, which is persuasive, cogent and fully developed. • The argument makes effective use of a counter-argument. • The structure of the reasoning is clear and explicit and places minimal reliance on assumptions. • Grammar, spelling and punctuation are good.	8	The main discriminator here in terms of levels is likely to be the quality of the reasoning. The candidates should all have had an opportunity to study the pre-release documents, so developed reasons should be expected in order to reach level 3, making use of evidence and/or examples drawn from the documents or introduced independently. Marks within the levels can be determined by the number of reasons provided and the extent of the evidence or examples provided. **Level 3 Exemplar** Enhancing our natural selves is definitely not wrong and we should have the freedom to do what we want to with our own bodies. Some might argue that we should all be comfortable within our own skin and have the confidence to be who we are, without the need for artificial body parts, cosmetic surgery or even make-up. However, there are huge numbers of people in the world who just don't feel right if they don't enhance themselves in some way. This might just be about increasing your self-confidence by making yourself look better with some make-up. But there are others who may have been born with some sort of disability where the use of a false limb or a hearing aid can allow them to get jobs and have access to experiences that they just couldn't have ever done without their enhancement. Of course it isn't wrong to enhance our natural selves when it can make our lives so much more fulfilling. [8 marks]

			Performance description for 3-5 marks: Level 2 • The conclusion is clearly stated, though not necessarily precisely focused. • At least one reason is provided for the conclusion, which is plausible and relevant. • The structure of the reasoning is not fully explicit and does rely on some assumptions. • Grammar, spelling and punctuation are adequate. **Performance description for 1-2 marks: Level 1** • The conclusion is imprecise and unclear. • The reason(s) provides very weak support for the conclusion. • Structure is either absent or minimal or unclear. • Grammar, spelling and punctuation may be inadequate.		**Level 2 Exemplar** I don't think it's wrong to change your natural self. I can't see very well without my glasses and I want to be a pilot when I'm older, so I'm saving up to have laser eye surgery so I don't have to wear glasses. I can't see what's wrong with that. Some people might say that it's not fair that I can afford to do this, whilst there are people in Africa who are nearly blind and can't even afford a pair of glasses. But that doesn't make it wrong for me to use my money how I want to. Enhancing your natural self is a good thing. [4 marks] **Level 1 Exemplar** I don't think people should be allowed to do unnatural things to their bodies. It just isn't right for people to take loads of muscle building supplements and spend hours at the gym working on their abs and their biceps, because they end up looking ridiculous. Who wants to be so muscly that they can't get clothes to fit them properly anyway? [2 marks]

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