

Thinking and Reasoning Skills

OCR Level 2 Award

Unit 1 **B901**: Thinking and Reasoning Skills

Mark Scheme for June 2011

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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.

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Question	Expected Answer	Mark	Rationale/Additional Guidance
1 (a)	Credit 1 mark for each correct answer as follows: (a) Teacher__Z__gives an argument. (1) (b) Teacher__W__gives an explanation.. (1) (c) Teacher__X__gives a list of information.. (1) (d) Teacher__Y__gives a rant. (1)	[4]	
2 (a)	Credit 1 mark for argument element correctly marked up to 4 marks as follows: <ul style="list-style-type: none"> • (We will score lots of goals) 1 mark • <u>we will be successful in the league.</u> 1 mark •  1 mark •  1 mark The mark for bracketing the intermediate conclusion and underlining the main conclusion is to be awarded to those candidates who also include the indicator word underlining “therefore” and placing “so” inside the brackets.		If more than one section of the argument is underlined, even if one of these sections is the correct conclusion, the candidate must not be credited because s/he is effectively giving more than one response. Likewise, if more than one set of words is bracketed, the mark for the intermediate conclusion cannot be awarded.

Question	Expected Answer	Mark	Rationale/Additional Guidance
2 (b)	<p>Credit 1 mark for a correct argument map showing that there are two and only two reasons</p> <p>Credit 1 mark for a correct argument map showing that the reasons are joint</p> <p>Credit 1 mark for a correct argument map showing that the intermediate conclusion immediately supports the conclusion.</p> <div data-bbox="389 483 701 770" style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> $\frac{R1 + R2}{\downarrow}$ IC \downarrow C </div>	[3]	<p>First Mark: It is not necessary for candidates to number the reasons but they must identify reasons as "R" or "Reason". Letters other than R are not acceptable.</p> <p>Second Mark: Candidates can only achieve this mark by using a plus sign (+) between two reasons but this mark would not be credited if there were two lines or arrows leading from the reasons.</p> <p>Third Mark: The map should show there are two conclusions and that the first conclusion (IC) supports the main conclusion (C). Allow this mark if "MC" is used instead of "C".</p>
3	Credit 1 mark for circling: Sitting the exam	[1]	
4	Credit 1 mark for circling: None of the above on their own	[1]	
5	<p>Credit 1 mark for each correctly circled answer up to 4 marks as follows:</p> <p>(a) Circle: 15 minutes</p> <p>(b) Circle: 4.45 pm</p> <p>(c) Circle: 55 minutes</p> <p>(d) Circle: 35 minutes</p>	[4]	
6 (a)	Credit 1 mark for circling: 2 more than 2005	[1]	
6 (b)	Credit 1 mark for circling: 5 years	[1]	

Question			Expected Answer	Mark	Rationale/Additional Guidance
6	(c)	(i) (ii)	Credit 1 mark for any reasonable assumption up to 2 marks for 2 separate assumptions Examples "it is the same teacher" (1 mark) "The exam has not got easier" (1 mark) "The students are not just getting better every year" (1 mark)	[2]	An assumption must be something that is unstated. For example "the teacher is getting better at teaching" would not be allowed, because this has been stated. "The grades are getting better each year" would not be allowed, because this is shown by the information. Credit responses which are on the right lines, but too strongly stated. For example, "the number of students taking the exam is the same."
6	(d)	(i)	Credit 1 mark for any similarity in the information presented up to 2 marks for 2 separate points Examples "The years are the same" (1 mark) "They are all about GCSE grades" (1 mark) "They all show the same pattern/distribution of grades" (1 mark) "They all go up in twos" (1 mark)	[2]	This must be about the information and not about the format in which the information is presented, i.e. what the charts show rather than the type of chart used.
6		(ii)	Credit 1 mark for any difference in the information presented in two of the documents Example "Document C is about achievement of A grades in History GCSE whereas Document B is about achievement of A grades in Maths GCSE" (1mark)	[1]	This must be about the information and not about the format in which the information is presented, i.e. what the charts show rather than the type of chart used. The candidates must refer to at least two documents. For example, "one is about History" does not gain credit.
6	(e)		Credit 1 mark for circling: "All students are improving" or "The number of pupils doing GCSE is increasing"	[1]	
6	(f)		Credit 1 mark for circling: "The number of pupils doing GCSE is increasing"	[1]	

Question	Expected Answer	Mark	Rationale/Additional Guidance
7	Credit 1 mark for each correct identification of a student with a preferred holiday up to 4 marks as follows: (i) Adam enjoys Skiing holidays (1 mark) (ii) Bella enjoys Beach holidays (1 mark) (iii) Carl enjoys City holidays (1 mark) (iv) Davina enjoys Camping holidays (1 mark)	[4]	
8	(a) (b) Credit 1 mark for any proposal for increasing the number of state school students getting places at university up to 2 marks for 2 separate proposals Examples "Increase the number of places available/expand university places" (1 mark) "Increase funding for state schools to lower class sizes/improve facilities" (1 mark) "Encourage more state students to apply" (1 mark) "Improve teaching" (1 mark) "Encourage more independent learning" (1 mark) "Quotas for state school applicants" (1 mark) "Use of interviews" (1 mark) "Use of special university entrance tests" (1 mark)	[2]	Responses must not imply that the candidate is simply supporting the original proposal. For example, "look at the circumstances they achieved A Levels in", or "look at the potential of the state school students, not just their results", or "places go to the most deserving" should not be credited. Credit suggestions for improving results in state schools, e.g. "better teachers".
9	(a) (b) Credit 1 mark for identifying that going to a private school is like "running on a flat and smooth surface" Accurate paraphrases which capture both ideas "flat" and "smooth" to be awarded the mark. Credit 1 mark for identifying that going to a poor state school is like "running up a steep hill with rocks" Accurate paraphrases which capture ideas of "uphill", "with rocks" and "steep" are to be awarded the mark.	[2]	(a) Key ideas are "flat" and "smooth", e.g. "running on a flat surface" would not be credited. (b) Candidates must identify at least two of the three ideas of going "uphill" (allow "up"), "rocky" (allow "rocks" and "steep".

Question		Expected Answer	Mark	Rationale/Additional Guidance
10	(a)	Credit 1 mark for identifying any significant difference as a weakness Examples “Cheating is unfair but this is fair because the places go to those who have best potential” (1 mark) “Cheating involves breaking the rules but this involves changing the rules and that is different” (1 mark)	[1]	Candidates do not necessarily have to compare both sides of the analogy, e.g. “this is not an attempt to deceive on the part of the student” should be credited, because the comparison is strongly implied. Candidates must show that they understand that the question requires them to consider an analogy. Responses that simply describe fairness or unfairness are inadequate unless they clearly consider the similarity with cheating. For example, “it is not fair because they deserve a place”, would not be credited.
	(b)	Credit 1 mark for identifying any relevant similarity as a strength Examples “In both cases those who do best are not actually the best” (1 mark) “In both cases ability is defeated by something else” (1 mark) “Cheating is by an individual but this would be by the university rather than by the applicant.” (1 mark)	[1]	
11	(a)	Credit 1 mark for identifying a relevant credibility criterion	[1]	Acceptable credibility criteria are: bias, ability to see/observe, vested interest, expertise/experience, neutrality (not reputation). Where there is a mismatch between (a) and (b), a maximum of one mark can be awarded across the two parts of the question. Where no response is given for (a), but a good explanation of credibility is given for (b), one mark can be awarded.
	(b)	Credit 2 nd mark for expanding on the point to explain why the credibility criterion would in this case be thought to weaken the student’s credibility Example “He might be biased (1 mark) and so exaggerate the case for not changing the present policy as it favours his own school/friends” (2 nd mark) He might have a vested interest (1 mark) as keeping the present system might be thought to advantage him” (2 nd mark)	[1]	

Question	Expected Answer	Mark	Rationale/Additional Guidance
	He lacks the ability to see what goes on in classrooms in some state schools (1 mark) so his views may be due to lack of key information/evidence” (2 nd mark)		
12	(a)	[1]	
	(b)	[1]	
13	<p>Performance description for 5 to 7 marks: Level 3</p> <ul style="list-style-type: none"> • Precise conclusion clearly identified • At least two reasons are provided for the conclusion, which are persuasive, cogent and fully developed. • Evidence and/or examples are provided which are both precisely relevant and adequate. • The structure of the reasoning is clear and explicit and does not rely on assumptions. <p>Example</p> <p>The real problem is not enough students from state schools apply to university in the first place. They are partly put off applying by the image of some of these universities as places for the very rich. For example the TV show, Lewis, makes it look as if only very posh people go to university. They are also put off by the huge costs of going to university. For example a greater proportion of state school students attend university in Scotland where there are no fees than in England where there are fees. (7 marks)</p> <p>Performance description for 3 to 4 marks: Level 2</p> <ul style="list-style-type: none"> • A conclusion is identified but may be imprecise or over blown • At least two reasons are provided for the conclusion but at most one is fully developed and not open to challenge. 	[7]	<p>To access L3, candidates should counter the whole claim, which is an explanation of why there are so few state school pupils in university. The best way to do this is likely to be to offer an alternative explanation for why there are so few state school pupils in university.</p> <p>A response such as, “state school pupils do not all misbehave, so he is generalising and stereotyping” is not strong reasoning and it does not counter the whole claim effectively. The author of Document D has claimed that state school pupils are badly behaved and so challenging this part of the overall claim can be part of a valid counter argument, but a L3 response must deal with the whole claim.</p> <p>Responses focussing on the credibility of the author of Document D (for example arguing that he has a lack of evidence or ability to see) are also unlikely to be strong reasons.</p> <p>Arguing that “some state school pupils do go to university” does not address the issue of why there are not <i>more</i> state school pupils in university and it would be attacking something the author has not said.</p>

Question	Expected Answer	Mark	Rationale/Additional Guidance
	<ul style="list-style-type: none"> • Evidence and/or examples are provided which may be relevant but not adequate. • The structure of the reasoning is not fully explicit and does rely on some assumptions. <p>Example</p> <p>State school students have no chance of getting into university even when they do work hard and don't mess about in class. The qualifications they work hard to get like BTECs and GNVQs just aren't rated. Also they don't get a chance to do the enrichment activities like foreign travel which universities value so much. (4 marks)</p> <p>Performance description for 1 to 2 marks: Level 1</p> <ul style="list-style-type: none"> • The conclusion may not be explicitly identified • Reasons are undeveloped and only provide weak support for their conclusion. • Evidence and/or examples are not provided. • Structure is either absent or minimal or unclear. <p>Example</p> <p>It is because the universities are too posh. It costs too much as well. (2 marks)</p>		

Question	Expected Answer	Mark	Rationale/Additional Guidance
14	<p>Performance descriptions for 7 to 10 marks: Level 3</p> <ul style="list-style-type: none"> • The conclusion is precisely and clearly stated. • Reasons are persuasive, cogent and fully developed • The structure of the reasoning is clear and explicit and places minimal reliance on assumptions. • Any ideas borrowed from the documents are developed and expanded • Evidence derived from the documents is used critically and strengthens the argument • Grammar, spelling and punctuation are good. <p>Example</p> <p>People don't do well in their exams when they are not motivated to learn and when the teacher doesn't have enough time to give everyone proper support and encouragement. Therefore to improve results all students need to be motivated and supported. To achieve this lessons need to be more interesting with more activities and different media such as use of ICT and DVDs. So schools need more money to get up to date facilities. But also teachers need to help students one to one so they can find out what each student finds difficult. This cannot be done when teachers are too busy. So schools need to give teachers smaller classes and more time to work with students. When all this is done results will be better. (10 marks)</p> <p>Performance description for 4 to 6 marks: Level 2</p> <ul style="list-style-type: none"> • The conclusion is clearly stated. • Reasons which are plausible and relevant are offered. • The structure of the reasoning is not fully explicit and does rely on some assumptions. • Any ideas borrowed from the documents are re-expressed in the students own words and used appropriately but not necessarily further developed 	[10]	<p>Conclusion: This should refer to improvement in grades in public examinations. For example, "if we do x, schools should improve" is imprecise. This argument should be about schools generally and it does not necessarily have to include anything about university places or the private/state school debate.</p> <p>Evidence/Examples: For L3, information should used critically, rather than being taken at face value. Examples should be relevant and should support the reasoning.</p> <p>Structure: Responses that are clearly organised and a good use of argument indicator words are features of good structure.</p> <p>Reasons: There is a key distinction between reasons that are developed and those that are undeveloped. Developed reasons are likely to include indicator words and relevant evidence/examples/explanation that develops the initial idea.</p>

Question	Expected Answer	Mark	Rationale/Additional Guidance
	<ul style="list-style-type: none"> • Evidence derived from the documents is used to strengthen the argument • Grammar, spelling and punctuation are adequate. <p>Example</p> <p>Schools need more money to give all students a laptop. This will make lessons more interesting instead of copying from books all of the time. Teachers need to be better at controlling badly behaved students. Also teachers shouldn't be sarcastic and tell you off just because you cannot understand. Teachers should be fun and not too serious. So results can improve when schools get more money and better teachers. (6 marks)</p> <p>Performance description for 1 to 3 marks Level 1</p> <ul style="list-style-type: none"> • The conclusion is imprecise and unclear possibly implied rather than stated. • Reasons offered against are undeveloped and only provide weak support for their conclusion and are mixed with rant and irrelevant information. • Structure is either absent or minimal or unclear. • Ideas are copied from the documents without further development • Evidence derived from the documents is not always relevant or significant • Grammar, spelling and punctuation may be inadequate. <p>Example</p> <p>Teachers are boring. They don't tell you how to do things properly. They have their favourites and can be sarcastic. All we do is copy from books. We need better lessons and teachers. (3 marks)</p>		

Question	Expected Answer	Mark	Rationale/Additional Guidance
15	<p>Credit 1 mark for one or more undeveloped reasons/claims which are relevant to the selected example.</p> <p>Credit 2 marks for one developed reason which is relevant to the selected example.</p> <p>Credit 3 marks for one or more developed reasons which are relevant to the selected example, fully explained and plausible.</p> <p>Example 1</p> <div data-bbox="387 587 1160 770" style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px 0;"> <p>v. Exam results now improve in the private school but go down in the state school</p> </div> <p>This is because state school teachers are more used to helping students. (1 mark) For state school teachers will be very experienced and hard working because they have had difficult classes to teach so they will find it easier to use those skills in the private school. (2nd mark) But private school teachers who are used to teaching well behaved pupils in small classes will struggle in more challenging schools. (3rd mark)</p> <p>Example 2</p> <div data-bbox="387 1182 1160 1382" style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px 0;"> <p>iv. Exam results now improve in the state school but go down in the private school</p> </div>	[3]	<p>A candidate who discusses only one side of the problem (only the effect on state schools or independent schools) can only be credited with one mark. However, for more than one mark, the same reason applied separately to the likely effect on private and state schools can be taken as two reasons (but not necessarily two developed reasons).</p> <p>Developed explanations contain reasoning and will often contain indicator words like “because”, “as”, “so” and “if...then”. Partial explanations offer a reason but are incomplete and invite the response “and so?”</p> <p>For 3 marks, we would expect to see a fully explained and plausible explanation, linked both to state and private schools and to the effect on academic performance.</p>

Question	Expected Answer	Mark	Rationale/Additional Guidance
	<p>This is because private school teachers are better teachers. (1 mark) They get better results from their students because they know their subject well and are good at explaining things and challenging students to do their best. (2nd mark) Whereas state school teachers are so busy trying to control their classes that they are not used to helping hard working students improve so they will struggle to do this now. (3rd mark)</p> <p>Example 3</p> <div data-bbox="389 552 1160 699" style="border: 1px solid black; border-radius: 50%; padding: 10px; text-align: center;"> <p>iii. Exam results at both schools go down.</p> </div> <p>This is because both sets of teachers are only used to working with their own kinds of students. (1 mark) Thus state school teachers are usually good at managing difficult classes and helping weaker students but they will not be able to work with very bright well motivated students. (2nd mark) But equally private school teachers who are good at challenging bright students to do even better will not cope well with the weaker and less motivated students. (3rd mark)</p> <p>Example 4</p> <div data-bbox="389 1107 1160 1254" style="border: 1px solid black; border-radius: 50%; padding: 10px; text-align: center;"> <p>iii. Exam results at both schools improve.</p> </div> <p>This is because the teachers will have a point to prove. (1 mark) The private school teachers will want to prove they can motivate weaker students in large classes so they will make a big effort to plan interesting lessons and help the</p>		

Question	Expected Answer	Mark	Rationale/Additional Guidance
	<p>weaker students. (2nd mark) Similarly the state school teachers will want to show they can challenge and teach well motivated students and put a lot more effort than normal into their lessons and everyone will do better. (3rd mark)</p> <p>Example 5</p> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px auto; width: fit-content;"> <p>ii. Exam results at both schools stay the same.</p> </div> <p>This is because the results don't really depend on the teachers but on the students. (1 mark) For example it is not the teachers fault that state school students mess on, the lessons are often interesting the students just don't care and that will not change when they get different teachers. (2nd mark) Likewise the good results at private schools are because the students already enjoy learning and want to do more and succeed and they can do this whoever teaches them so the new teachers will not make any difference either way. (3rd mark)</p>		
	Total	[60]	

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