

Level 2 Award

Thinking and Reasoning Skills

OCR Level 2 Award in Thinking and Reasoning Skills **J930**

OCR Report to Centres January 2014

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This report on the examination provides information on the performance of candidates which it is hoped will be useful to teachers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding of the specification content, of the operation of the scheme of assessment and of the application of assessment criteria.

Reports should be read in conjunction with the published question papers and mark schemes for the examination.

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CONTENTS

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OCR REPORT TO CENTRES

Content	Page
B901 Thinking and Reasoning Skills	1
B902 Thinking and Reasoning Skills Case Study	4

B901 Thinking and Reasoning Skills

General Comments

The entry was smaller than in previous sessions, suggesting that many centres are unaware that a January entry is still available for this qualification.

In Section A, some of the problem solving questions proved more challenging than in previous sessions. Many candidates would benefit from guidance on what constitutes a pattern in a table of data.

In Section B, as usual, the more successful candidates wrote arguments that were carefully structured and with developed reasons. There were few, if any, instances of candidates arguing in the wrong direction.

Comments on Individual Questions

Section A

Question 1 (a):

The majority of candidates were successful in identifying the main conclusion of the argument and the conclusion indicator word.

Question 1 (b):

Just over half of the candidates were able to identify that Map B was the correct argument map because there were two joint reasons supporting the conclusion. Most candidates who selected Map B were able to support their choice with an acceptable explanation.

Question 1 (c):

Fewer than half of the candidates were able to identify an assumption in this reasoning. A very significant number answered, 'Children learn better in schools when they are happy', which suggests that they were not familiar with the idea of an assumption being an unstated reason in the argument.

Question 2 (a):

The question, 'Is this claim a fact or an opinion', should have been clear enough but a significant minority misread the question and offered 'Claim' as their response. The overwhelming majority of those who did not misread the question managed to choose the correct answer.

Question 2 (b):

Curiously, fewer candidates misread part (b) than part (a), even though the wording was identical. The majority correctly distinguished between fact and opinion.

Question 2 (c):

Although the question was completely different from parts (a) and (b), a significant number of candidates gave 'Opinion' as their response. Only half of candidates were able to identify a weakness, with 'irrelevant appeal' or 'tu quoque' being correct answers. Some candidates gained the mark by explaining the weakness rather than just naming it. Less successful candidates responded to the claim that 'most teenagers have one' by pointing out that this does not apply to all teenagers.

Question 3 (a):

Only a minority of the candidates were successful in accurately identifying three patterns in the data but most candidates managed to achieve at least one mark.

Quite a few candidates appeared to think that if 'all females are vegetarian' it follows that 'no males are vegetarian' but more careful examination of the table would have revealed that this was not so.

Many candidates did not understand that the absence of a pattern does not constitute a pattern. For example 'not all males are vegetarian' was not creditworthy. Mere observations such as 'more females than males are vegetarian' or 'all males except one are vegetarian' are not patterns in the data.

Future candidates should be advised that good answers are likely to begin with the words 'all', 'none' or 'only'. Answers should not start with the words 'some' or 'most'.

Question 3 (b):

Most candidates achieved at least one mark for this question. A very popular wrong answer involved speculation that, being female herself, Sarah is likely to be biased.

Question 4:

As in previous sessions, the matrix question was generally well answered with a majority of candidates achieving all four marks.

Question 5 (a):

Many candidates did not realise that the tiles could be rotated and so gave a variety of high numbers as a response to this question.

Question 5 (b):

Examiners saw a wide variety of incorrect responses to this question.

Question 5 (c):

Candidates needed to realise that having more men on the job would not make the cement dry faster.

Question 6 (a):

Many candidates were able to identify questions that were both relevant and clear. A significant minority failed to understand what is generally meant by 'binge drinking', confusing this phenomenon with underage drinking or frequent drinking.

Question 6 (b):

In all three parts of this question, most candidates were able to select reasons that offered the strongest support to the conclusion. Part (i) proved to be the most challenging, with 'Alcohol is a poison if taken to excess' being the most popular incorrect response.

Question 7 (a):

A majority of the candidates correctly identified the 8.00am bus.

Question 7 (b):

Most who achieved a mark in part (a) went on to correctly answer part (b). Successful candidates generally explained that Jill would be able to catch the 8.00am bus at 8.15am.

Section B

Question 8 (a):

In questions requiring an assessment of credibility, a credibility criterion on its own is not creditworthy but most successful candidates do use credibility criteria in their explanations.

In part (i) successful candidates concentrated on Dr James's expertise or ability to see.

In part (ii) more successful candidates tended to concentrate on vested interest or irrelevant expertise.

In both parts of the question, a developed answer was required for both marks. A developed answer is likely to include an indicator word, while an undeveloped answer is likely to invite the response, 'and so...?'

Question 8 (b):

The majority of candidates achieved both marks, with hallucinations and dreaming being the most popular alternative explanations.

Question 8 (c):

As with question 1(c), many assumptions repeated part of the text, suggesting that some candidates were unfamiliar with the idea of assumptions as unstated reasons.

Question 8 (d):

The flaw was a false dilemma. Less successful candidates often attacked the claim that, 'Lots of people say they have been abducted by aliens.'

Question 8 (e):

A sizeable minority of candidates managed to correctly recognise the condition as being sufficient but not necessary.

More successful candidates went on to explain that answering 'yes' to these two questions was seen as a sufficient condition of alien abduction but that it was not a necessary condition because it is also sufficient to answer 'yes' to two different questions or to all three questions.

Question 9:

Many candidates wrote their arguments using the suggested format of a letter to Dr James. More successful candidates tended to structure their arguments carefully. As always, examiners were looking for two developed reasons to award a mark in the top band and candidates are advised to organise their answers so that each reason is in a separate paragraph.

Less successful candidates simply asserted that Dr James had no evidence to support his claim, which is clearly incorrect because Document A describes his 'extensive research'. More successful candidates discussed the relevance and significance of the evidence, often suggesting alternative explanations for the reported experiences or the vested interest of Dr James.

A common weakness was that many candidates failed to understand the concept of extrapolating from a sample to a population. Such candidates argued that a sample size of 6000 was too small to draw the conclusion about 33,000,000 people.

Question 10:

As with all argument questions in this unit, carefully structured responses were more likely to be successful and two relevant and developed reasons were required to access the top mark band. Most candidates argued about searching for life on other planets rather than space exploration generally.

Candidates who argued that we should not spend money researching life on other planets often suggested that there were better uses for the money, such as funding the NHS, reducing the deficit or increasing overseas aid. This counted as one reason even if candidates offered several examples of how money might be better spent.

B902 Thinking and Reasoning Skills Case Study

General Comments

It was pleasing to see a large proportion of strong scripts in the January series for B902. Candidates engaged positively with the subject matter and were able to show many well developed thinking and reasoning skills.

Most candidates demonstrated a good familiarity with the pre-release material, an essential element of successful scripts for this unit. This was particularly apparent in the questions assessing AO3 in Section B, allowing most candidates to gain at least half marks on these high tariff questions, with a good proportion of the most successful answers reaching Level 3.

It is not only in the AO3 questions that a strong grasp of the documents and a wider awareness of the paper's theme are needed however. Questions which require candidates to demonstrate their critical thinking skills from AO1 are also taken from the documents and it was clear on this paper that there were many who had had a chance to think about argument structures, flaws and analogies in advance of sitting the examination.

Equally, AO2 skills such as those assessed here in questions 10 and 11 can often carry high marks and are made more accessible by a stronger awareness of the material contained in the documents. Again, it was pleasing to see so many candidates who were able to respond positively to these questions.

Comments on Individual Questions

Section A

Question 1

Most candidates were successful in identifying this as a rant.

Question 2

Most candidates were successful in identifying this as an explanation, correctly seeing that there was no attempt to persuade here, thus ruling out the possibility of it being an argument.

Question 3 (a)

There were two reasons in the argument given and successful answers bracketed one or other of these. Some candidates bracketed the whole first sentence, including both reasons, which could not be credited.

Question 3 (b)

Most candidates successfully identified the last sentence as the conclusion, possibly helped by the inclusion of the indicator word 'so'.

Question 3 (c)

Most candidates correctly circled the word 'so' here. Some chose 'should', which although not technically a conclusion indicator word, does indicate persuasion and is therefore allowed.

Question 4 (a)

Most candidates were able to identify the fact that the argument contained two conclusions, thus helping them to the correct answer as this was the only option which included an intermediate conclusion.

Question 4 (b)

Most candidates correctly identified the reasoning as joint, recognising that the two reasons were dependent upon each other to support the intermediate conclusion.

Question 5

Most candidates were able to identify this correctly as an irrelevant appeal; in this case an appeal to tradition. Perhaps because of the element of 'others have done it before, so it must be ok' some candidates chose *tu quoque*.

Question 6

The majority of candidates were able to identify this as an *ad hominem* flaw and having done so were able to explain why. Some candidates were able to achieve both marks even if they could not recall the correct term, by accurately describing the flaw in the reasoning.

Question 7 (a)

This question discriminated well with majority of candidates able to attract at least one mark for their answers. Candidates often find analogy questions more challenging than some of the other skills tested in this unit and it was pleasing to see some very clear answers which obviously understood the use of this argument element. The best answers were those which correctly identified the key component of the analogy as refusing to believe the two claims. Some candidates were able to gain a partial mark for recognising the aspect of claiming to have seen a ghost being compared with claiming to have watched Coronation Street. Some unsuccessful answers were either too vague in saying that seeing ghosts was like watching television, or missed the analogy completely and focused on the first part of the extract about being sober and sound of mind.

Question 7 (b)

Candidates found the second part of question 7 slightly easier to gain full marks on than the first. The most popular successful answers focused on the difference in plausibility between the two things being compared and often on the relative ability to prove the two claims. Most candidates covered both sides of the analogy in their answers, which is important to be able to gain full marks. As with the first part of the question, answers which were more specific in their focus were more likely to receive credit.

Question 8

This was another question which discriminated well. Some very good answers were seen which focused on the impact of new technologies, population increase and the greater pull of tourist attractions including haunted rooms. The key element needed here to gain credit was a focus on what had changed to cause the increase.

Question 9 (a)

Most candidates were able to identify Sam's potential financial gain from his ghost walks business to show the vested interest. The best answers made this explicit in their explanation.

Question 9 (b)

Candidates found it more difficult to explain his lack of expertise here. Most candidates focused on Sam being a history student and the answers which gained credit here identified this as suggesting he therefore had no expertise in the paranormal.

Question 10

Most candidates were able to secure at least 3 of the 4 marks available for this question and successfully recognised the limits to the conclusions which could be drawn from the data. The statement which proved to be the hardest to identify correctly was the second. The key to success here was realising that although within the survey there were more students than unemployed people in the survey, this could not justify the conclusion that this was true across the UK.

Question 11

Most candidates were able correctly to place at least three of the five statements in the correct area of the Venn Diagram. Candidates demonstrated familiarity with Venn Diagrams and also with the pre-release material. Although questions like this can be time consuming, the high mark tariff available for candidates means that investing time can bring big gains and it was clear that most candidates had taken this approach.

Question 12 (a)

Most candidates were able to identify at least one strength in the evidence provided by the photograph. The best answers were able to develop their reasons, with the most common successful answer focusing on the date of the photograph. Some candidates went down the route of looking at credibility criteria here and this was not successful.

Question 12 (b)

Once again most candidates were able to identify a weakness here. As with the previous question, the answers which attracted two marks were able to develop their reason. Typically, this was best done by presenting a reason, then adding an '*and so*' formulation to explain the significance of the reason.

Question 13 (a)

This was a difficult question because candidates were required to distinguish between the counter argument and the response, '*it does not explain poltergeists*', which was a continuation of the same sentence. Most candidates successfully located the counter argument. Only some were able to isolate the counter from the response.

Question 13 (b)

Most candidates here were able to identify at least two of the scientific explanations for ghost sightings. Some candidates were able to gain marks for two different answers involving magnetic fields if they distinguished between the impact they have on places and the effects they have on the brain.

Question 13 (c)

This question required candidates to present a short argument containing a developed reason and a clear conclusion. Many successful answers were able to gain at least two of the three marks available and the best answers developed the reason effectively to attract the third mark. The most common successful answers focused on the fact that although science can explain ghostly sightings, it has no answers for moving objects or the apparent effectiveness of exorcism.

Section B

Question 14

This question discriminated well and it was pleasing to see so many candidates who were familiar enough with the pre-release material to develop a strong argument. Some candidates reached Level 3 by making use of the evidence presented in the document to produce developed reasons which supported their conclusion. Other candidates selected relevant evidence and arguments from the documents and structured these to support their conclusion. This was a feature of many Level 2 responses. Successful answers generally found it easier to oppose the claim in the question than to provide reasoning which supported it.

Question 15 (a)

Most candidates were able to provide relevant alternative explanations for the scenarios presented. The most successful answers dealt with both aspects of the situations: the fact that the child saw a ghost and that it seemed to be climbing through the window; the ghost noises and the hands coming over the door. These answers were more likely to attract both marks for each question.

Question 15 (b)

Many candidates produced strong answers to this question with a significant minority able to reach Level 3. Successful reasoning often focused on the duty of the police to make people feel safe and the need to investigate something that could turn out to involve criminal activity. As with question 14, this question discriminated well and rewarded candidates who were able to develop their reasons to provide convincing support for the conclusion.

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