



Cambridge International AS & A Level

THINKING SKILLS

9694/41

Paper 4 Applied Reasoning

October/November 2022

MARK SCHEME

Maximum Mark: 50

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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This document consists of **13** printed pages.

PUBLISHED**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

PUBLISHED**GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

ANNOTATIONS

Annotation Qs 1 to 3	Meaning and use
	Correct response. Use when a mark has been achieved in Q1, 2 and 3.
	Not good enough. Use in Q1, 2 and 3 when a response is partly correct but is insufficiently creditworthy for a mark to be awarded.
	Benefit of doubt
	Underline. For material which prevents a mark from being awarded.

Annotation Q4	Meaning and use
	Creditworthy material in the Structure skill
	Main Conclusion
	Intermediate Conclusion
	Argument Element
	Creditworthy material in the Use of Documents skill
	Use stamps 1–5 alongside U to indicate which document has been referenced

Annotation Q4	Meaning and use
	Evaluation of documents
	Comparison of or inference from documents
	Creditworthy material in the Quality of Argument skill
	Treatment of counter-position
	Level achieved. Add annotation at the end of Question 4 in the order of S, U, Q from left to right.
	Elevated demonstration of a skill Higher mark within a level awarded
	Diminutive demonstration of a skill Flaw or weakness Lower mark within a level awarded
	Examiner has seen that the page contains no creditworthy material Use to annotate blank pages
Highlight	Where helpful, use to identify the part of the answer to which another stamp pertains.

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

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Question	Answer	Marks
1(a)	No one should pay any attention to such claims.	1
1(b)	<i>1 mark for each correctly identified IC (max 3)</i> <i>Mark only the first three answers given</i> • (So) claims of this kind should be subjected to greater critical scrutiny. • They [so-called personality tests in magazines and on websites] are very unreliable. • (Evidently,) there is no such thing as an argument in favour of astrology. • (But) they are actually more dangerous than such users realise.	3
1(c)	<i>1 mark for either of the following</i> • (Many people say that) personality tests have given them important new insights into the mysteries of their minds, souls and personalities. • (Many of the people who believe in horoscopes and personality tests claim that) they are just 'a bit of fun'.	1

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Question	Answer	Marks
1(d)	<i>Award one mark for each of the following [max 2]:</i> R1 People who spend all their time completing personality tests resemble the young man in the Greek myth who fell in love with his own reflection. C This preoccupation with self is psychologically and spiritually unhealthy. R2 Instead of giving people the knowledge and skills they need to become more effective in their work and relationships, these tests distract them from engagement with the outside world. A1 Things turned out badly for the young man in the Greek myth. A2 Being distracted from engagement with the outside world is psychologically and spiritually unhealthy.	2
	<i>Award one mark for identifying two relationships between elements, e.g.</i> • R1 supports C / is an analogy that illustrates C and/or R2. • R2 supports C. • A1 is needed in order for R1 to support C. • A2 is needed in order for R2 to support C. <i>Reference to start and end of elements must be unambiguous.</i> <i>Sample 3-mark answer</i> Comparison of people completing personality tests to a Greek myth is an analogy used to illustrate the conclusion ‘This preoccupation ... unhealthy’ [1]. ‘Instead of giving ... outside world.’ is a reason [1] that supports the C. [1]	1

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Question	Answer	Marks
2(a)	2 marks for a developed version of any of the following points. 1 mark for a weak or incomplete version of any of the following points. Paragraph 4 • <i>Conflation</i> – of completeness with reliability. • <i>Reliance on questionable assumption</i> – that these personality quizzes consist of ‘a few multiple-choice questions’. Paragraph 5 • <i>Reliance on questionable assumption</i> – that the shortage of arguments in an on-line search means they do not exist. • <i>Irrelevant appeal to authority</i> – the fields cited do not imply expertise relevant to criticising astrology. • <i>Weak support</i> – the IC ‘no such thing’ is too strong to follow from ‘most’ in the first sentence. • <i>ad hominem</i> – the last clause attacks the arguer rather than the argument. Paragraph 6 • <i>Slippery slope</i> – from a harmless beginning to not being able to make a simple decision without consulting an astrologer • <i>Disproportionate appeal to fear</i> – The last sentence cites the ruination of lives in an attempt to influence the emotions of the reader. • <i>Reliance on questionable assumption</i> – that people who make decisions without reference to horoscopes and personality tests are not equally at risk of ‘making disastrous life choices, which ruin their lives’.	6
2(b)	Award marks for any of the following [max 3] The reasoning within paragraph 3 does offer some support to the conclusion of the paragraph but the conclusion itself is limited [1]. The conclusion of paragraph 3 merely suggests that claims about personality tests should be subjected to greater scrutiny [1]. As such, this is much weaker than the MC, which calls for the dismissal of all such claims [1]. Furthermore, tests being subjected to more scrutiny could be said to contradict the MC, which states that no attention should be paid to such claims [1]. Hence the IC of the paragraph offers little support to the MC of the document [1]. However, other strands of reasoning within the argument may be seen to perform some of this greater scrutiny, in which case the conclusion of paragraph 3 does contribute to the argument as a whole [1].	3

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Question	Answer	Marks
3(a)	<i>1 mark for a version of any of the following points [max 3]</i> • There's a limited number of responses, so... • Options might not represent people's actual preferences • Options could put ideas into people's heads • If none of the options was the right answer, respondents might choose one at random • Respondents might become frustrated if their preference was not represented • Respondents might choose a response to suit a desired outcome • The preferences of people, and teenagers in particular, are likely to change so a time-dependent 'snapshot' cannot be relied upon.	3
3(b)	<i>1 mark for a version of any of the following points [max 3]</i> • the information is about how much these tests are used, not about their relative success at predicting employment competency. • the size of the employers using the tests is more significant than the proportion using them – if only used by small companies, then the percentage figure will be misleadingly high. • the usefulness of literacy and maths tests is likely to vary depending on the type of employment more than personality tests / it is possible that literacy and maths tests are used only where they are most useful. • there is no information about how much weight is attached to the results of the tests by the employers. • the numbers are such that it is possible that personality test are only ever used in conjunction with job skill tests. • (because the percentage using the tests is a somewhat vague measure, the precision of the numbers) cannot be used to claim that 46 is 'better' than 41 – they are merely similar in this context.	3

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Question	Answer	Marks
4	‘Everyone should find out as much as possible about their personality.’ <i>Specimen high-scoring answers</i> <i>Support (728 words)</i> Ancient Greek philosophers were right to claim that the first task for those seeking wisdom is, ‘Know yourself’ The two main divisions of that task are firstly to know what we have in common with others – to know ourselves as human beings – and secondly to know what makes us special, i.e. our likes and dislikes, strengths and weaknesses, talents and potential. The latter can be grouped together under the expression ‘personality’, and the documents show that there are resources available to help us find out more about our personality than we could discover by mere introspection or trial and error. Para 2 of Doc 2 identifies several practical applications of the MBTI, and if it really does help in these respects, then it is clearly a useful tool, which can be recommended as an aid to achieving success and fulfilment in life. Similarly, the personal experience of the Tutor, writing in Doc 4, shows that well-planned personality tests can reveal significant facts about oneself which one had not consciously known. We have probably all known people who – because of circumstances or their own unwise choices – have spent many years of their lives in occupations which they found profoundly uncongenial. Similarly, students who choose a course of study or training which does not suit them may find themselves locked into a career path which they do not want. We know how unhappy such people are, and of how much fulfilment they are deprived. Yet most of us lack the accurate self-awareness we need in order to make good choices, especially during adolescence, when the most significant life-choices have to be made. Time and effort spent on programmes such as those described in Docs 2 and 4 are therefore a good investment. The underlying factor which makes these two programmes so valuable is probably the role of the unconscious in human thought and decision-making. It is possible that the mind is like an iceberg, of which only a small proportion is accessible to our senses. Psychological instruments such as the MBTI uncover aspects of our minds and personalities of which we are unaware, but which are very influential in making us who we are. Admittedly, Doc 1 para 1 shows it is possible to fool people by persuading them that fake descriptions of their personalities are true. This shows that some of such descriptions and programmes may be ‘dishonest and exploitative’, but certainly not (as Doc 1 claims) that they all are. As an MBTI consultant, the author of Doc 2 has a bias and vested interest to portray the MBTI in the most favourable light. But he draws attention to the two most important aspects of any personality test. He explains the theoretical basis for the programme and also claims that it has been ‘exhaustively validated’. This is in contrast to the on-line quiz in Doc 5, which	27

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Question	Answer	Marks
4	looks unlikely to have either a theoretical basis or statistical validation and which offers descriptions which are too brief to be of much use. Not all alleged insights into personality should be taken seriously. The claims regarding astrology in Doc 3 are very weakly supported by the reasoning, and most likely originate in wishful thinking. However, the table in Doc 4 shows that such tests are taken seriously and deemed to be useful by a range of employers. We cannot infer usefulness merely from frequency of use – it is possible that some of these employers have merely jumped upon a popular bandwagon. However, it is unlikely that the tests would be used by such a large number of employers if there were not some evidence of efficacy. Employers with weaker selection procedures are less likely to remain employers for long. It is right to be hesitant in putting much credence into claims to reveal hidden truths about our personalities. Some such claims – such as star signs and quizzes on websites and in magazines – are obviously of very little value. Nevertheless, some personality tests have a sound scientific basis and can be used as resources in making the most important choices in life. By accessing people's unconscious, they reveal aspects of their thinking of which they may well be unaware until they are brought to light, but which they then recognize as true insights. Overall, therefore, it is good advice that everyone should find out as much as possible about their personality. <i>Challenge (752 words)</i> As an MBTI consultant, the author of Doc 2 has a bias and vested interest to portray the MBTI in the most favourable light. This is revealed in his careful choice of two examples in his final paragraph. If he has used the MBTI as extensively as he claims, two examples in which it struck lucky are not many. So his explanation of the theoretical basis for the programme and his claim that it has been 'exhaustively validated' should not be accepted without independent corroboration. In principle, the MBTI is no more reliable or useful than the on-line quiz in Doc 5, which looks unlikely to have either a theoretical basis or statistical validation and which offers descriptions which are too brief to be of much use. The table in Doc 4 shows merely that personality tests are used, not that they are in any way useful. Such apparently high numbers could merely reflect a popular trend or a desire by employers to be seen as considering a range of information in their selection procedures, even if not much notice of the results is taken. It may be that the consultant actually does believe in the claims he makes and in the value of the psychological instrument he promotes. As para 3 of Doc 1 shows, many people do seem very credulous of claims which allegedly tell them what makes them special. It is likely that the consultant himself, and also the people who say they have found his workshops helpful, are evidence of the truth of this tendency.	

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Question	Answer	Marks
4	Doc 1 para 1 clearly shows it is possible to fool people by persuading them that fake descriptions of their personalities are true. Even if a few of such descriptions and programmes are not ‘dishonest and exploitative’, most of them probably are, since people whose specialist subject is themselves are a prime target for confidence tricksters. Of all the alleged insights into individual personalities mentioned in the sources, the most risible and least useful is the star sign. Since it is based on no input from the individual at all, the alleged insights of astrology are less valid even than the trivial quiz in Doc 5. The defence of astrology in Doc 3 relies on rejecting the principles of scientific evidence and reasoning on which we rely in every other aspect of our lives. The last paragraph of this document is especially dangerous, when it suggests that there may be a psychological value in a reassurance which is unfounded and turns out to be false. On the contrary, people should make the big decisions of life based on what they have good reason to believe is true, rather than what they hope might be true. As para 2 of Doc 1 rightly points out, spending time on personality tests can be a distraction from making the most of one’s opportunities. Although para 6 of Doc 1 is over-stated, it does draw attention to two real dangers in the use of personality tests, astrology and all other claims to reveal inner truths about people’s personalities. Firstly, they can become addictive, taking up time, energy and money which would be better applied to the task in hand. Secondly, people can make serious mistakes by relying on horoscopes or personality tests instead of making decisions on the basis of objective research and personal reasoning. For example, the choice of a life-partner is far too important to be guided by such an irrational criterion as astrology (as alleged in para 5 of Doc 3). The key factors in achieving success are talent and commitment. Time spent in introspection and choices based on alleged revelations about one’s inner life are obstacles to these. Furthermore, the whole concept of a categorizable ‘personality’ from which inferences can be made is based on the assumption that people do not change over time, which is contrary to both sense and experience. Rather than constantly searching for activities and relationships which might fulfil our own personality, we would be better advised to concentrate our energies on developing the skills and qualities needed to respond to the opportunities and challenges which face us. There are several powerful reasons why it is not a good idea to waste time trying to find out more about ourselves. Most of the techniques which offer such insights are misguided and exploitative, and focussing so much on oneself is psychologically unhealthy. Overall, therefore, it is not true that everyone should find out as much as possible about their personality.	

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

*Cap mark for Structure at 3 if no conclusion given