Cambridge International AS & A Level

THINKING SKILLS **9694/23**

Paper 2 Critical Thinking **May/June 2023**

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.

Cambridge International will not enter into discussions about these mark schemes.

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[Turn over

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.

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

✔	In Qs 1, 3 and 4 use to indicate where marks have been awarded.
✖	Use to indicate an answer or element that is wrong.
NGE	Not good enough. Use wherever such a judgment has been made.
BOD	Benefit of doubt.
AE	In Q3 use to indicate 'significant additional element'. In Q5 use to indicate creditworthy other argument element
CON	In Qs 2 and 5 use to indicate 'conclusion'.
C	In Qs 2 and 5 and in short questions where indicated, use to indicate that marks have been capped because an essential element of the answer is absent.
EVAL	In Q2 use to indicate creditworthy evaluation of a source.
I	In Q5 use to indicate creditworthy intermediate conclusion.
P	In Q2 use to indicate creditworthy personal thinking. In Q3 use to indicate paraphrase.
R	In Q2 use to indicate creditworthy inferential reasoning. In Q5 use to indicate creditworthy reason used to support a conclusion.
S	In Q2 use to indicate creditworthy use of a source. In Q5 use to indicate distinct strand of reasoning.
∧	In appropriate cases, use to indicate significant omission. In Q3 use to indicate 'significant omission'.
SEEN	Use in answers when no other annotations have been used. Use on blank pages.
Highlight	Use to draw attention to part of an answer.

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

Question	Answer	Marks
1(a)	*2 marks for a correct answer with accurate explanation* *1 mark for a correct answer with vague, incomplete or generic explanation* *0 marks for a correct answer without explanation* *0 marks for an incorrect answer with or without explanation* *2-mark answer (3 ticks)* Source B is an argument (✓). The first sentence is the conclusion (✓), which is supported by the rest of the source (✓). *1-mark answer (2 ticks)* Source B is an argument (✓), because it includes a persuasive conclusion supported by reasons (✓). Source B is an argument (✓). The first sentence is the conclusion (✓). *0-mark answer (1 tick or 0 ticks)* Source B is an argument (✓), because it involves somebody making a case for something…	2
1(b)	The claim in the first sentence of Source D is about 'people' in general **[1]**, but the members of a national motoring association may not be representative of the population as a whole **[1]**. Such an organisation is likely to contain a higher proportion than usually found in a population of people who are interested in / informed about issues pertaining to motoring **[1]**. It is likely that people who chose to respond to the survey had more negative or positive views on the topic of self-driving cars than the average person **[1]**.	2
1(c)	*Up to 2 marks for any two valid answers, for example:* • The stated disadvantages of 'using car-pooling or taxi schemes to get around' are not peculiar to self-driving cars, but apply equally to conventional ones / public transport **[1]**. Hence, they cannot be used to support the claim that 'the introduction of self-driving cars could actually cause an increase in the number of privately-owned vehicles' **[1]**. • Just as those who dislike driving may be encouraged to use self-driving cars, those who like driving cars may be discouraged from using self-driving ones **[1]**. This would cancel out the effect to some extent **[1]**. • The estimate from the USA could be unrepresentative or selected to make a point **[1]**. Other estimates may be much lower **[1]**. • The estimated increase in car travel does not necessarily equate to an increase in the number of cars being privately owned **[1]**. It may simply refer to people making more journeys in existing vehicles **[1]**. • The estimated increase is only a quantification of the effects already mentioned **[1]** and so does not add any further supporting evidence **[1]**.	4
1(d)	The claims made in both sources may all be true because although they make opposing claims about fuel consumption **[1]**, they are focussed on different ways this can be affected **[1]**. Source A is focussing on the possibility of cars becoming lighter and less powerful **[1]**, whereas Source B is comparing self-driven cars with manual ones *of the same weight and power* **[1]**.	4

Question	Answer	Marks
1(e)	*1 mark each for up to two of the following:* • There are likely to be other circumstances than 'ordinary use', such as emergencies, where rapid acceleration might be needed. • The sense of self-satisfaction at reducing one's carbon footprint does not seem similar enough to an adrenaline rush for one to offset the other. • People may want to have control over the car's driving style – including using powerful acceleration – and a free market would be likely to offer them this. • People may well continue to want more powerful cars as a status symbol. • Since necessity is not the key factor for consumers now, it is difficult to see why it would become one for self-driving cars.	**2**

Question	Answer	Marks
2	<table><tr><td>**Conclusion**</td><td>1 mark for an explicit supported conclusion *Cap at 7 if conclusion is absent or implicit*</td></tr><tr><td>**Use of sources**</td><td>2 marks for use of at least 3 sources 1 mark for use of at least 1 source</td></tr><tr><td>**Evaluation of sources**</td><td>1 mark for each valid evaluation of the credibility or quality of reasoning in sources *Maximum 3 marks*</td></tr><tr><td>**Inferential reasoning from sources**</td><td>1 mark each *Maximum 3 marks* *Source must be mentioned for this to be credited*</td></tr><tr><td>**Personal thinking**</td><td>1 mark each *Maximum 2 marks*</td></tr></table>	8

Annotate answers as follows:

CON To indicate 'conclusion'.

S To indicate creditworthy use of source.

EVAL To indicate creditworthy evaluation of source.

R To indicate creditworthy inferential reasoning.

P To indicate creditworthy personal thinking.

C To indicate that mark has been capped.

✖ To indicate incorrect material.

Indicative content

- Source A highlights the potential fuel savings of self-driving cars,
- claiming that motorists may be willing to buy lighter and less powerful vehicles, which generally use less fuel than heavier, more powerful ones.
- Source B claims that, due to all the extra equipment required, self-driving cars may use more fuel than conventional vehicles.
- However, the claim is specifically comparing vehicles of the same size and power,
- hence there is no inconsistency with the claims in Source A.
- Source C suggests that the successful introduction of self-driving cars could cause the number of privately-owned vehicles to increase,
- although there is a conflation in the source between an increase in car ownership and an increase in car travel.

Question	Answer	Marks
2	• Source D comments on how likely people are to accept and to use self-driving cars, • claiming a lack of willingness to accept and to use them, other than in limited contexts. • The source cites data from a survey of members of a motoring association, which, while it is probably an accurate reflection of respondents' views, • might be vitiated by having used an unrepresentative sample of people (members of the association). • Overall, the sources suggest that while there is a possibility of self-driving cars offering benefits for the environment, • there are many reasons why these benefits may not be realised. **Example 8-mark answer (219 words)** Source A provides evidence that the introduction of self-driving cars could encourage people to switch to lighter, less powerful vehicles than those currently used, resulting in better fuel consumption. Although Source B appears to counter Source A's claim of less fuel being used, should the use of self-driving cars become normalised, there is no inconsistency between the two sources, because Source B is specifically comparing self-driving cars with manually driven vehicles 'of the same weight and power'. Source C states that introducing self-driving cars could increase the number of cars on the road, which, given the environmental costs of manufacturing cars, would be an undesirable outcome. However, the source's claim is undermined by the conflation of increased car ownership with increased car travel. Source D offers evidence that acceptance of self-driving technology is likely to be low, other than in specific contexts. In an industry where customers' wishes strongly determine what is offered, low acceptance of the technology would probably hinder the move to self-driving cars. Fortunately, however, the source's claim is wholly based on a survey of members of a motorists' association, who are unlikely to be representative of all drivers. Overall, therefore, while there are likely to be benefits for the environment should self-driving cars be successfully introduced, there is no guarantee of success for this project.	

Question	Answer	Marks
In Q3, annotate as follows: **AE** Significant additional element **∧** Significant omission **P** Paraphrase *In Q3(a), (c), and (d), if two answers are given, one of which is correct, award 1 mark.* *In all parts of Q3, apply guidance relating to additional material* **only** *if it constitutes an additional part of an answer or an alternative answer.*		
3(a)	*2 marks for an exact answer* *1 mark for a paraphrase, or for* **one** *additional element or omission* (However,) searching for happiness will inevitably result in failure.	**2**
3(b)	*For up to 2 of the following:* *2 marks for an exact answer* *1 mark for a paraphrase, or for* **one** *additional element or omission* *If more than two answers given, mark the first three only* • (clearly) the concept of happiness is vague and not easy to define, • (Apart from a few lucky individuals,) this [being happy for all or most of the time] is impossible. • The circumstances in which most people live rule this [being happy for all or most of the time] out.	**4**
3(c)	A reason **[1]** supporting the claim (an intermediate conclusion) that 'ruined relationships with family and friends cause us loneliness, (leading to an unhappy life)' **[1]**.	**2**
3(d)	*2 marks for an exact version of the following* *1 mark for an incomplete or vague version of the following* Solving problems and facing difficulties prevent people from being happy.	**2**

Question	Answer	Marks
4(a)	The fifth sentence ['even professional psychologists fail to agree on exactly what happiness is'] **[1]** is an appeal to authority **[1]**. *Accept:* appeal to expertise. *Accept for 1 mark:* the first sentence ['It is a widely held belief that the most important goal of our lives is that we should be happy.'] is an appeal to popularity / authority.	**2**
4(b)	There is a flaw of slippery slope. The argument moves from thinking about one's own happiness to one leading an unhappy life **[1]**. While the general direction of this move is plausible, its occurrence is by no means as inevitable or as hyperbolic as laid out in the paragraph **[1]**.	**2**
4(c)	Paragraph 4 supports the MC by asserting that the way to find happiness is not to search for it directly **[1]**. Eleanor Roosevelt (the wife of a former U.S. President) was not necessarily an expert / authority on the topic of happiness **[1]**, but there is a relevant and proportionate appeal to the authority of people who say they have found happiness **[1]**. However, it could be argued that paragraph 4 offers a method by which one can search for happiness indirectly and be successful **[1]**, which undermines the MC that searching for it must result in failure **[1]**.	**3**
4(d)	The analogy is not very good **[1]**. There is similarity inasmuch as success is more likely if you don't pursue it directly **[1]**. However, archers are still seeking to hit the target, albeit indirectly **[1]**, whereas the whole thrust of the argument is that happiness is not something that we can actively seek, directly or otherwise **[1]**. *Do not credit judgment only.* *One mark for weakly supported judgment.*	**3**

Question	Answer	Marks
5	<table><tr><td>**Reasons**</td><td>2 marks for three or more reasons supporting conclusions 1 mark for one or two reasons supporting conclusions</td></tr><tr><td>**Inferential reasoning**</td><td>1 mark for each use of an intermediate conclusion or chain of intermediate conclusions *(including if used in a response to a counter)* *Maximum 3 marks*</td></tr><tr><td>**Argument elements**</td><td>1 mark for each use of other argument elements that strengthens the reasoning: counter with response, example, evidence, analogy, hypothetical reasoning *Credit each type only once per strand of reasoning* *Maximum 3 marks*</td></tr><tr><td>**Structure**</td><td>1 mark for two or more distinct strands of reasoning</td></tr></table>	8

Each component of a candidate response may score only once. Where there is more than one possibility, use the classification which leads to the higher total mark.

Maximum 6 marks for no conclusion or wrong conclusion, or a conclusion that does not follow from the reasoning, or if both sides are argued without a resolution.

0 marks for answer unrelated to the claim given.
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Annotate answers as follows:

CON   To indicate main conclusion.

R   To indicate creditworthy reason used to support a conclusion.

I   To indicate creditworthy intermediate conclusion.

AE   To indicate creditworthy other argument element.

S   To indicate distinct strand of reasoning.

C   To indicate that mark has been capped.

✘   To indicate material that is judged not to have a structural function the argument.

Use **highlighter** to indicate material which is not relevant to the stated claim or is derived from the passage.

Question	Answer	Marks
5	***Example 8-mark answers*** *Support (166 words)* Real happiness is a long-term state **[R]** and is only possible if we feel secure. People who feel chronically vulnerable to the uncertainties of life are unlikely to achieve genuine, lasting happiness. Security requires **[R]** us to have financial resources, therefore **[I]** without such resources we cannot be happy. **[S] [AE]** Although many of the things that make us happy cannot be bought, having money enables us to **[R]** create the conditions for these. For example, we cannot **[AE]** be healthy unless we eat regular, nutritious meals. Decent food **[R]** is not free; hence **[I]** we must be able to provide it for ourselves and this requires money. **[S]** However, money is not just important for **[R]** what we can purchase directly with it. Our possession of it and ability to acquire it is a modern-day marker for how successfully we have lived our lives. Nowadays, if we wish **[AE]** to be happy, we need to feel that our lives have been a success, so money **[I]** is indirectly important to happiness. **[CON]** Therefore, people need money to be happy. *Challenge (174 words)* People who live in low-income families sometimes claim that **[R]** despite experiencing a relative degree of material deprivation they live in a supportive and loving environment. If people live in such an environment, **[AE]** then it is highly likely that their basic emotional needs will be satisfied. Having these needs adequately met is a necessary condition **[R]** of living a happy life. Therefore, **[I]** living in circumstances where there is no money for items other than essentials need not preclude anyone from being happy. **[S] [AE]** It is often argued that we need money to fulfil our critical physical needs, which, if not satisfied, lead inevitably to unhappiness. However, non-human animals can survive and thrive **[R]** using only their physical abilities, instincts and wits to provide things such as food and shelter. **[AE]** Human beings are also **[R]** animals and thus can potentially do likewise, **[I]** albeit with a less comfortable lifestyle. If we have the same coping abilities as non-human animals, it follows **[I]** that we too can meet all our physical needs without money.	

Question	Answer	Marks
5	CON Therefore, people do not need money to be happy. *Acceptable 'challenge' conclusions:* • People do not need money to be happy. • Money is not essential for happiness.	