

GCE

Critical Thinking

Advanced GCE

Unit F503: Ethical Reasoning and Decision-Making

Mark Scheme for June 2013

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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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Annotation	Meaning
All Questions	
✓	Key point
Question 3	
C	Criterion
Е	Evaluation of criterion
A	Recognition of ambiguity
I	Intermediate conclusion
Q	Hypothetical reasoning, example, evidence, analogy, counter argument/assertion with response
[Gap or flaw in reasoning. In combination, unsuccessful attempt at
Question 4	
Е	Choice/Conclusion (Resolution of issue)
Р	Principle
Е	Evaluation of principle
5	Relevant use of source
V	Evaluation of source
A	Alternative
I	Intermediate conclusion
Q	Hypothetical reasoning, example, evidence, analogy, counter argument/assertion with response

Annotation	Meaning
	Gap or flaw in reasoning.
L	In combination, unsuccessful attempt at
SEEN	Blank/additional page seen

NB Examiners should use the above annotations to assist them in deciding their marks. They do not, however, have to use them to annotate every instance seen.

NB Ticks are used in questions 1 and 2 to identify significant points. Because the questions are marked by levels, the mark awarded will not necessarily correspond to the number of ticks.

1. Subject-specific Marking Instructions

Preamble

This paper sets out to assess candidates' critical thinking skills in the context of making decisions using principles and evidence. To be successful, in general terms candidates need to be able to demonstrate the ability to handle key terms and concepts such as choice, criteria and principle and to come to judgments in the context of situations determined by a set of resources.

Assessment by Specification

	Candidates should be able to	Qn 1	Qn 2	Qn 3	Qn 4
	Evaluate a range of source material and select appropriate ideas, comments and information to support their reasoning and analysis of complex moral and ethical problems.	✓	✓		✓
	Identify and evaluate conflicting ideas and arguments within a range of source material.		✓		✓
3.3.1	Explain how ideas and arguments presented in the source material may be influenced by a range of factors.	✓			✓
3.3.1	In addition to those common patterns of reasoning developed in Units 1 and 2, identify, analyse and apply hypothetical reasoning.				✓
	Demonstrate understanding of the idea that there may be a range of different possible responses to complex moral and ethical problems, and that there may be many different criteria that can be applied in assessing the value and effectiveness of different			✓	
	solutions to complex moral and ethical problems.				
3.3.2	Demonstrate understanding of the nature of a dilemma.				
J.J.Z	In response to real issues, construct their own arguments.				✓

Extended Writing

Question 5 requires candidates to produce a piece of extended writing.

Stretch and Challenge

Level 4 of Question 5 is the stretch and challenge element of this examination.

Assessment Objectives [AOs] and Allocation of Marks

The total mark for the paper is 60, allocated as follows:

- AO1 **Analyse** argument 15 marks
- AO2 **Evaluate** argument 19 marks
- AO3 Develop own arguments 26 marks

This weighting is reflected in the different types of questions asked and in the application of the mark scheme.

Question	AO1	AO2	AO3	Total
1	3	3		6
2	3	3		6
3	4	5	3	12
4	5	8	23	36
Total	15	19	26	60

Question	Answer	Marks	Guidance
1 (a) (b)	Answers must have two steps ((a) and (b)) but may focus on either: (a) "waste" is a value judgment, rather than factual; therefore (b) judgments as to what counts as waste are subjective. or (a) judgments as to what counts as waste are subjective; therefore (b) different people will differ as to what counts as waste or (b) people's interpretation of what counts as waste water may not be what the waterwise campaign intended. Other valid answers should be credited. Sample 3-mark answers: (a) The word "waste" expresses a value judgment. By describing some water usage as "waste", the document means that it was not necessary or appropriate. (b) The use of the word begs the question as to whether the usage actually was necessary or appropriate. (b) Different people will probably disagree as to whether particular examples of water usage are waste or not. (b) Some consumers will probably regard examples of usage as appropriate which the author would have described as "waste". Sample 2-mark answers: (a) The word "waste" expresses a value judgment. (b) Judgments about waste are subjective. Sample 1-mark answers: (a) It is not clear what their idea of water that has been wasted actually is. (b) As the definition doesn't specifically express what they deem to be wasted water, it would be difficult for people to reduce it.	6 [3+3]	For (a) and (b): 3 marks Clear and developed explanation of a specific problem 2 marks Identification of a specific problem, perhaps with vague or incomplete explanation 1 mark 5 marks Explanation of a generic or marginal problem No correct content.

Questi	ion	Answer	Marks	Guidance
Questi 2 (a) (b)	on	Answers are expected to identify a specific element in Document 2 and show how it might influence a reader's behaviour. In (a) it must be a factor which might influence consumers to try to avoid wasting water and in (b) it must be a factor which might influence them not to do so. • The likely increased demand for water in the South East and East over the next thirty years (para 1) • The possible impact of climate change (para 1) • Shortages during droughts (para 2). • The fact that "there is usually sufficient water to meet the needs of people and wildlife" (para 2) • The fact that leakage amounts to "almost a quarter of the water supplied" (para 4) • The fact that "Most water companies are planning to maintain leakage at their economic levels" (para 4). Sample 3-mark answers: (a) According to para 1, climate change "could have a major impact" on the amount of water available in the future. Reducing usage now may ease or postpone problems in the future. (a) According to para 2, water becomes in short supply during prolonged periods of dry weather. If consumers were more responsible in their use of water, companies would be less likely to have to resort to emergency measures at such times. (b) According to para 2, "there is usually sufficient water to meet the needs of people and wildlife." So there is no need at present to reduce consumption of water except in times of drought. (b) According to para 4, leakage amounts to "almost a quarter of the water supplied" and the companies do not	6 [3+3]	For (a) and (b): 3 marks Factor from document accurately identified and clear explanation of its influence 2 marks Factor from document accurately identified and vague explanation of its influence Vague/marginal factor with valid explanation/ inference 1 mark Explanation of general influence without reference to a specific factor from the document. 0 marks No correct content. If the answer to (b) is the obverse of (a), the mark for (b) is capped at 2. If there is no new reasoning, it is capped at 1.

Question	Answer	Marks	Guidance
	intend to do anything about it. Consumers might feel disinclined to inconvenience themselves in order to save water when the companies don't mind wasting it.		
	Sample 2-mark answers: (a) According to para 1, climate change may reduce the amount of water available in the future. (a) According to para 2, water becomes in short supply during prolonged periods of dry weather. (b) According to para 2, "there is usually sufficient water to meet the needs of people and wildlife." So there is no problem. (b) According to para 4, leakage amounts to "almost a quarter of the water supplied" and the companies do not intend to do anything about it.		
	Sample 1-mark answers: (a) Climate change. (b) They should tell the water companies to fix their leaks.		

Question	Answer	Marks	Guidance
3	c = Criteria: Application and evaluation of selected criteria to choice	12	c = 9 marks – 3 marks for each of 3 answers:
	 Examples of 1 mark Valid simple assessment of issue (not stated choice) by reference to a valid criterion Valid simple assessment of stated choice by 		3 marks Valid assessment of stated choice by reference to a valid criterion including awareness of ambiguity and/or valid evaluation of criterion.
	 reference to an inaccurately-stated criterion Largely speculative assessment by reference to a valid criterion 		2 marks Valid simple assessment of stated choice by reference to a valid criterion.
	 Largely repetitive assessment by reference to a different valid criterion Invalid/marginal/trivial assessment of stated choice by reference to a valid criterion. 		1 mark Weak or marginal assessment of stated choice or issue by valid or inaccurately-stated criterion.
	 Examples of 0 marks Entirely speculative assessment Invalid/marginal/trivial assessment by reference to invalid criterion. 		0 marks Very weak attempt at assessment of stated choice or issue by criterion.
	Suitable criteria which might be used include: • Effects on the environment • Fairness • Ease of implementation/Convenience • Cost.		Ensure that the correct item is highlighted in the marks column in scoris, ie: 4c1 (Criterion 1) 4c2 (Criterion 2) 4c3 (Criterion 3) and enter a mark out of 3 for each of three Criteria answers.
	Other valid criteria should be credited		
	 Sample 3-mark answers: Consumers should avoid wasting water, without reducing their consumption to an absolute minimum This is the fairest of the three options available, because it reduces the likelihood of supplies being restricted in times of drought, without inconveniencing consumers disproportionately. 		

Question	Answer	Marks	Guidance
	 However, it could be argued that it is unfair to expect consumers to accept any restrictions as long as the companies tolerate leakage at anything like the present level. So this choice meets the criterion of fairness only partially This option is fairly easy to implement, because it involves only a few common-sense restrictions, such as most of the ones recommended in Document 3. This criterion is crucially important, because there is no point in campaigning in favour of a lifestyle which is too burdensome for most people to attempt to implement This option is fairly easy to implement, because it involves only a few common-sense restrictions, such as most of the ones recommended in Document 3. However, it is not as easy as the first (laissez-faire) option, which involves no effort at all. So this choice partially meets the criterion of ease of implementation. 		
	 Sample 2-mark answers: This is the fairest of the options, because it reduces 		
	the likelihood of supplies being restricted in times of drought, without inconveniencing consumers much		
	It is fairly easy to implement, because it involves only a few common-sense restrictions, such as most of the ones recommended in Document 4		
	It is also cost-effective, because most of those recommendations save money on the water bill without costing anything to implement.		
	If the consumer is metered, then this could be very beneficial to them, as the less water they use, the less they're charged. However, if they're unmetered, it would mean that they could be paying for much more water than they're actually using, making it very unpragmatic.		

Question	Answer	Marks	Guidance
	q = Quality of Argument		q = 3 marks
			3 marks
			Evaluations well-supported by reasoning.
			2 marks
			Evaluations generally supported by reasoning.
			1 mark
			Evaluations clearly stated but largely unsupported. or Reasoning contains significant gaps or flaws.
			0 marks
			Evaluations not clearly stated or not related to criteria.
			Ensure that the correct item is highlighted in the marks column in scoris, ie: 4q
			and enter a mark out of 3 for Quality of Argument.

Question	Answer	Marks	Guidance
4	Principles General principles have implications that go beyond the case in point. Different kinds of principle a candidate can refer to might include legal rules, business or working practices, human rights, racial equality, gender equality, liberty, moral guidelines. Candidates are likely to respond to the issue by explaining and applying relevant ethical theories. This is an appropriate approach, provided the result is not merely a list or even exposition of ethical theories with little or no real application to the problem in hand. Candidates who deploy a more specific knowledge of ethical theories will be credited only for <i>applying</i> identified principles to the issue in order to produce a reasoned argument that attempts to resolve it. Candidates are <i>not</i> required to identify standard authorities such as Bentham or Kant, or even necessarily to use terms such as Utilitarianism etc, although they may find it convenient to do so; the word "however" is likely to deserve more marks than the word "deontological".	36	Level 4 (10–12 marks) Accurate identification and developed application of at least 3 contrasting plausible ethical principles or at least 2 contrasting major ethical theories. Level 3 (7–9 marks) Accurate identification and application of at least 2 relevant ethical principles or theories. Level 2 (4–6 marks) Identification of at least 2 relevant principles or developed discussion of 1 principle Basic application of principles to the issue. Level 1 (1–3 marks) Some attempt to identify at least one principle and to apply it to the issue. Level 0 (0 marks) No use of principles.
	Credit must be given to any argument based on a principle in the sense outlined in the preceding note. Principles of that kind might include: Individual consumers have a duty to protect the environment Each generation has a duty to pass on the earth to future generations in as good a condition as possible No one has a duty to deprive themselves if doing so is unlikely to benefit anyone else Resources should be distributed on the basis of need Everyone needs an adequate supply of water.		 Maximum level 1 for Identification and Application of Relevant Principles for anyone who only re-cycles criteria from question 3 as principles. To be located in level 4, the use of principles must normally be all of the following: Contrasting (in approach and/or outcome) Plausible (supported by reasoning and/or generally accepted) Applied (not necessarily at great length, but more than a brief summative judgment)

Question	Answer	Marks	Guidance
	Candidates may legitimately approach the subject from the perspective of principles of ecological ethics, especially the Gaia Principle, which describes the Earth as a single, living organism, with all its biological, geological, chemical and hydrological processes acting together. The best answers are likely to appeal to two or three of the following ethical principles and theories, which are susceptible of fuller development. Simple consequentialism seeks to identify the choice which will bring about the greatest good of the greatest number. The laissez-faire policy brings most benefit to the individual, and probably a small amount of harm to other people (including future generations). The other two policies may bring some benefit to others, at the expense of reducing the benefit to the individual. Choosing between the three policies from this point of view consists of choosing the greatest public benefit at the least expense to the individual.		Ensure that the correct item is highlighted in the marks column in scoris, ie 4p , and enter a mark out of 12 for Identification and Application of Relevant Principles.
	Kant's Principle of Universality is potentially relevant to this issue. No individual consumer can make any significant difference to the issue, however much they limit themselves, but if they follow Kant they will act as they would wish others to act, even if they know full well that many others will not emulate them. No one could wish it to be a universal law that everyone should use more than their fair share of water. The second version, that we should always treat persons as ends, and not as means only, could also be used to support a moderately or extremely restrictive policy, since anyone who uses more than their fair share of any limited resource is depriving someone else of their rightful share.		

Question	Answer	Marks	Guidance
	Any candidate who referred to W D Ross's theory of <i>prima facie</i> duties could legitimately relate the duty of non-maleficence to this dilemma, since using more than one's fair share of water when resources are limited harms those who are forced to go thirsty.		
	Because access to potable water is an essential condition for life, it is implied by the right to life.		
	Behind Rawls's Veil of Ignorance, one might be someone who (for example) likes soaking in full baths, swimming in a private pool and keeping the grounds of a large house green and well-watered or someone who lacks water for basic needs because of the selfish behaviour of someone else.		
	Divine command ethics can be used in relation to this issue. Most religions (including Christianity and Judaism) regard humans as stewards of the earth (that is, as managers, not owners). That means we should make good use of natural resources, and not waste them or use them up.		
	Neither the Social Contract nor the Principle of Liberty is strictly relevant to this issue, because they refer to the relationship between governments and citizens, whereas this issue is about the personal choices of individual consumers.		

Question	Answer	Marks	Guidance
	Indicative Content		s = 8 marks
	s = Use and Critical Assessment of Sources Document 1 The name of this organization implies that it has expertise in the issue of water supply together with a vested interest to reduce consumption. Document 2 As a government agency, the Environment Agency has a good reputation and expertise in subjects such as this. Although it has a vested interest to promote responsible behaviour, it also has a vested interest to maintain its reputation, and is therefore very unlikely seriously to misrepresent the facts. This document states facts without drawing any conclusions from them: so it is not an argument.		Level 4 – (7–8 marks) Relevant and accurate use of sources to support reasoning Sustained and persuasive evaluation of sources to support reasoning. Level 3 (5–6 marks) Relevant and accurate use of sources Some evaluation of sources. Level 2 (3–4 marks) Some relevant and accurate use of sources, which may be uncritical. Level 1 (1–2 marks) Very limited, perhaps implicit, use of sources.
	Document 3 Both the sources have clear vested interest to encourage people to reduce their consumption of water. Their estimates of the amount of water that can be saved by small economies are doubtless maximized and some of them are not credible. Document 4 Because this document is published on an open-access website, it has little reputation and unknown expertise. The fact that the author has contributed articles on a wide range of subjects suggests that she is probably not an expert. The extract has an evident bias in favour of reducing water consumption, but there is no reason to suppose that this is based on any vested interest and the extract does not make any claims which are intrinsically implausible.		Level 0 (0 marks) No attempt to use sources. Except at Level 1, credit references to sources only if they support reasoning. Maximum level 2 for Use and Critical Assessment of Sources for uncritical use of sources. Typical indicators of L4 (any two of which normally locate an answer in L4): More than 2 evaluative references to sources Nuanced evaluation Strong support to reasoning.

Question Answer	Marks	Guidance
Document 5 For commercial reasons, this website has a vested interest to encourage readers to buy products which it features, but this vested interest is offset by a vested interest to retain credibility by providing accurate information to its readership. So it may be advisable, rather than necessary, to install separate drainage and backup systems, and the costs and financial benefits may be under- and over-estimated respectively, but not hugely.		Ensure that the correct item is highlighted in the marks column in scoris, ie 4s, and enter a mark out of 8 for Use and Critical Assessment of Sources.

Question	Answer	Marks	Guidance
	q = Quality of Argument		q = 8 marks
			 Level 4 (7–8 marks) Claims well supported by clear and persuasive reasoning Consistent use of intermediate conclusions Reasoning supported by relevant use of some of: hypothetical reasoning, counter argument/assertion with response, analogy, evidence, example Few errors, if any, in spelling, grammar and punctuation.
			 Level 3 (5–6 marks) Claims supported by clear reasoning Few significant gaps or flaws Generally clear and accurate communication Few errors in spelling, grammar and punctuation.
			 Level 2 (3–4 marks) Claims mostly supported by reasoning Some significant gaps and/or flaws Some effective communication Fair standard of spelling, grammar and punctuation, but may include errors.
			 Level 1 (1–2 marks) Little coherent reasoning Perhaps significant errors in spelling, punctuation and grammar
			Level 0 (0 marks) No discussion of the issue.
			Ensure that the correct item is highlighted in the marks column in scoris, ie 4q , and enter a mark out of 8 for Quality of Argument.
			If the mark for p and/or s is L0 or L1, the mark for q is capped at L2.

Question	Answer	Marks	Guidance
Question	r = Resolution of Issue	Marks	 r = 8 marks Level 4 (7–8 marks) Resolution of the issue on the basis of a persuasive account of the arguments in favour of the stated choice and developed consideration of at least one alternative Perhaps an awareness that the resolution is partial/provisional. Level 3 (5–6 marks) Clear identification of a choice Some consideration of at least one alternative
			 Some attempt to resolve the issue. Level 2 (3-4 marks) Basic discussion of the issue Basic identification of a choice. Level 1 (1-2 marks) Limited discussion of the issue. Level 0 (0 marks) No discussion of the issue.
			Ensure that the correct item is highlighted in the marks column in scoris, ie 4r and enter a mark out of 8 for Resolution of Issue. If the mark for p is 0 or L1, the mark for r is capped at L2. Answers to the wrong question (ie public policy instead of individual choice), marks are capped as follows: p and s: mark in relation to the correct question; q and r: cap at L2.

APPENDIX 1

Principal Examiner's suggestion of possible ideas/approaches to Question 4

(NB This is **not** the expected level of candidate responses.)

I am going to defend a moderate policy of trying not to waste water but using as much as one reasonably wants. As q 3 indicates, this policy contrasts with the two extremes of either refusing to limit water use (the laissez-faire policy) or keeping such use to the bare minimum (the rigorous policy).

All theories and statements of human rights agree that the right to life is the most fundamental and the most important. It includes a right to such necessities as food, water and shelter, without which life cannot be sustained. Access to potable water should, therefore, be recognised as a human right and an important priority for both governments and individual consumers. In order not to infringe this right, everyone should avoid using more than their fair share of water. This rules out the laissez-faire policy.

The first version of Kant's Categorical Imperative ("the principle of universality") states that one should follow what one would like to be a universal rule of conduct, even if there is no reason to believe that other people will, in fact, follow it. This principle implicitly condemns the laissez-faire option, but it would be quite rational to want either the moderate or the rigorous policy to be a universal rule. However, most people would probably disagree with Kant, believing instead that there is no moral obligation to act heroically if doing so is unlikely to do much good. On that basis, there is no point in trying to reduce one's consumption of water to a bare minimum, because Document 2 states that water companies have no misgivings about wasting nearly a quarter of the water supplied. This documents comes from the Environment Agency, which has unrivalled expertise and ability to see in this specialised subject, together with a vested interest to maintain its reputation (as a governmental agency) by giving accurate information. Only the moderate policy is supported by both of these principles.

Another duty-based approach to this issue could balance non-maleficence and beneficence, which are two of Ross's *prima facie* duties. Using more than one's fair share of water, and thereby depriving other people of what they need, would be an act of maleficence. The duty of beneficence favours the rigorous policy, while the duty of non-maleficence can be used in support of either the moderate or the rigorous policy. But the duty of beneficence can reasonably be offset against the right of self-preference. Since non-maleficence is recognised as a more fundamental duty than beneficence, anyone who is reluctant to undertake the demands of the rigorous policy can reasonably claim to be living a moral life by adopting the moderate policy.

Over the last several decades, it has become generally accepted that humans as a species have a special responsibility to care for the environment and to use it responsibly. Religious people see this as a duty of stewardship owed to God, whereas humanists tend to emphasize the duty owed by each generation to its descendants, but the implications of both principles are the same. Potable water is a natural resource which is in short supply, although much less so than oil and some other non-renewable resources. According to Docs 1 and 2, parts of the UK are already experiencing shortages of water, and the problem is likely to become worse in the near future. Doc 1 supports the moderate policy of avoiding waste, although it fails to make clear how serious the problem is or to what extent using water more responsibly might alleviate it.

All Consequentialist theories claim that moral actions should be judged according to their consequences. According to Doc 3, many simple actions on the part of consumers, which would cause them very little inconvenience, could have very beneficial consequences. If those claims are true, then they strongly support the moderate policy. However, the sources of Doc 3 both have a clear vested interest to exaggerate the benefits of certain actions, in order to encourage people to practise them. The statistics of the amount of water that could be saved by simple economies can only be guesses, and so they are almost certainly over-stated. They rely on the unrealistic assumptions that no one is already making those economies and that everyone will begin doing so. Because these outcomes are unlikely to be as great as Doc 3 claims, they are insufficient to justify the rigorous policy, which would cause significant hardship to the individuals or families undertaking them. The practices recommended in Doc 4 seems likely to cause disproportionate inconvenience, while the proposals in Doc 5 would be expensive (especially as the website may be under-estimating the costs and over-estimating the benefits, in order to sell the products it advertises). So the greatest good of the greatest number is likely to be achieved by the moderate policy.

All these different ethical approaches lead to the same conclusion. Using water freely, with no concern for the consequences, is irresponsible, but the problems are not severe enough to require heroic measures. Everyone should, therefore, do their best to avoid wasting water – what I have called the "moderate policy".

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