



General Certificate of Education (A-level)
June 2012

Critical Thinking

CRIT4

(Specification 2770)

Unit 4: Reasoning and Decision Making.

Final

Mark Scheme

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all examiners participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for standardisation each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, examiners encounter unusual answers which have not been raised they are required to refer these to the Principal Examiner.

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Critical Thinking Mark Scheme

INTRODUCTION

The nationally agreed assessment objectives in the QCA Subject Criteria for Critical Thinking are:

- A01** Analyse critically the use of different kinds of reasoning in a wide range of contexts.
- A02** Evaluate critically the use of different kinds of reasoning in a wide range of contexts.
- A03** Develop and communicate relevant and coherent arguments clearly and accurately in a concise and logical manner.

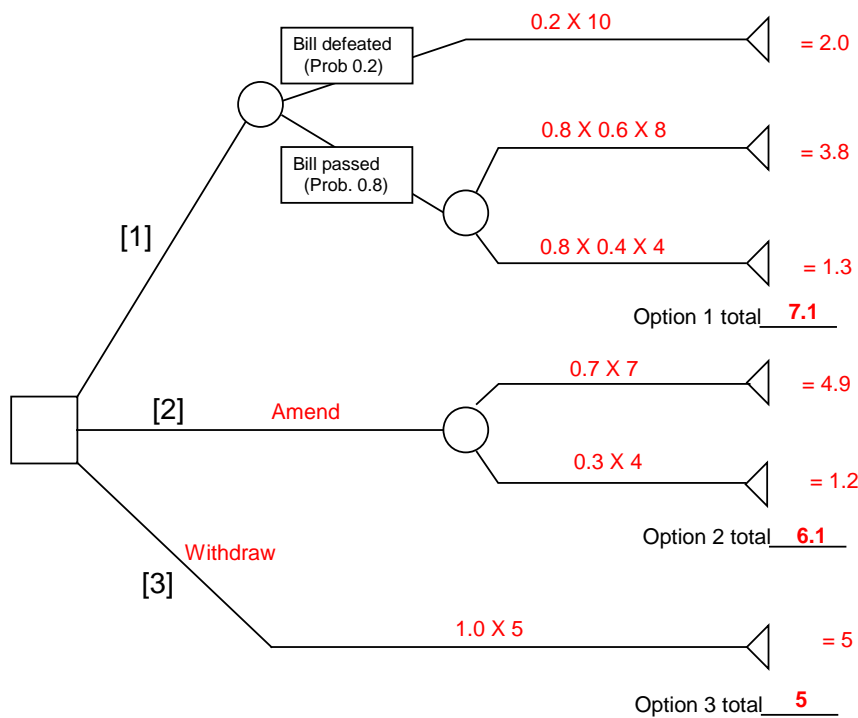
- Marks are allocated to the assessment objectives according to the nature of each question and what it is intended to test.
- For Questions 1–8, Examiners need only provide a total mark for each of the candidates' answers. They do not need to provide a breakdown by Assessment Objective.
- For Question 9, marks should be awarded according to the generic marking grid.
- Candidates should be able to achieve the highest marks with a selection of relevant points, not necessarily the complete range.
- **Indicative content is provided as a guide for examiners. It is not intended to be exhaustive and other valid points must be credited.**

Unit 4 Reasoning and Decision Making

Section A

No.	Question	AO:	1	2	3
Question 1 refers to Document H of the Case Study Source Material.					
1	<p>Look again at pre-release <u>Document H</u>, <i>health, wealth and falling trees</i>. Explain briefly the dilemma that all governments face when considering a new and potentially unpopular policy.</p> <p style="text-align: right;">(4 marks)</p> <p>One dilemma for governments is that if they press ahead with a potentially unpopular decision, they may lose votes. On the other hand if they back down or perform a U-turn they appear weak which can affect their standing with the electorate no less than if they go ahead. The seriousness of the dilemmas is that either way they could end up being out of office.</p> <p>An alternative answer is that governments have to choose between principle and political expediency, with the same undesirable consequences whichever way they turn.</p> <p>3 – 4 for a clear statement of the dilemma and an explanation of its seriousness.</p> <p>1 – 2 for identifying the choice or difficulty governments face, but without explaining its seriousness and / or without explaining what makes it a dilemma – two options only, each with undesirable outcome(s).</p>	4			

No.	Question	AO:	1	2	3
2	<p>Complete the decision tree diagram below, showing the outcomes and probabilities for each of the options.</p> <p style="text-align: right;">(6 marks)</p>		3	3	



	<p>1 – 2 for evidence of understanding of the method.</p> <p>3 – 4 for entering and processing some of the data correctly.</p> <p>5 – 6 for entering most or all of the data correctly and making the right calculations, as above.</p>			
3	<p>Use the diagram to judge which option the Government should take, giving a brief supporting argument based only on the statistical data.</p> <p style="text-align: right;">(4 marks)</p> <p>1–2 for correct answer based on <i>candidate's</i> calculations + 1–2 for supporting argument or explanation.</p> <p>On the basis of the statistical evidence, the government should withdraw the Bill, since the probability of serious negative consequences is slightly lower than either of the other options.</p>		4	

Section B

No.	Question	AO:	1	2	3
Questions 4 and 5 relate to one or more of the Case Study Source Material documents.					
4(a)	<p>Consult <u>Document B</u>: <i>The NHS braces itself for privatisation</i></p> <p>The author concludes (in the final paragraph) that David Cameron’s commitment not to put the NHS at risk seems hard to reconcile with his government’s proposed reorganisation.</p> <p>Identify two of the examples of risks the author gives in support of this conclusion.</p> <p style="text-align: right;">(2 marks)</p> <p>Eg</p> <ul style="list-style-type: none"> • Non-core clinical services could be harder to outsource; these are costly and difficult to plan for. • As much as 64% of the health service could end up in private hands. (This could be 12% more expensive than under NHS.) • The placing of control on the hands of GPs may be unpopular given past experience; ‘not a good omen’. • Problem of unplanned services requiring complex and expensive treatments where it will be hard to make a profit: risk of these being left for the government or patients to pay for. 		2		
4(b)	<p>Do the examples you have identified strongly support the author’s conclusion?</p> <p style="text-align: right;">(5 marks)</p> <p>Candidates may answer affirmatively by saying, for example, that there is much uncertainty over the future of many areas of health now handled by the NHS, either because they will be privately run and may cost more or provide a poorer service, or because they will not be bid for by the private sector and so left for the government to run – especially the non-core, difficult, or expensive ones. Private companies will want to take over the most profitable services, leaving others.</p> <p>Good candidates may observe that the conclusion is quite weak – viz. “this seems increasingly hard to reconcile...” – and that therefore any identified, plausible risk is sufficient to give it some support, even strong support if there are multiple risks.</p> <p>Some might, with more difficulty, answer negatively by arguing for example that the service as a whole remains free for patients whoever provides the services, and the public sector will still run those services which are not privatised. (NHS does not necessarily mean a nationalised service.) However, candidates cannot simply argue that the risks may not happen: the author’s conclusion is that Cameron cannot say he will not put the NHS at risk if his policies involve risks.</p>			5	

No.	Question	AO:	1	2	3								
	<table><tr><td>Max 4</td><td>Assessing support / justification</td></tr><tr><td>Good (4–5)</td><td>For giving a clear and valid explanation as to <i>why</i> a claim (or claims) does / does not justify a given conclusion (strongly or at all). This may take the form of a balanced response, with pros and cons, if appropriate</td></tr><tr><td>Intermediate (2–3)</td><td>For offering some considered reason(s) as to why a given conclusion does / does not follow from given claims.</td></tr><tr><td>Basic (1)</td><td>For making some appropriate judgement about the support given to the conclusion. (Verdict alone: 0)</td></tr></table>	Max 4	Assessing support / justification	Good (4–5)	For giving a clear and valid explanation as to <i>why</i> a claim (or claims) does / does not justify a given conclusion (strongly or at all). This may take the form of a balanced response, with pros and cons, if appropriate	Intermediate (2–3)	For offering some considered reason(s) as to why a given conclusion does / does not follow from given claims.	Basic (1)	For making some appropriate judgement about the support given to the conclusion. (Verdict alone: 0)				
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5	<p><u>Document F</u>, with the headline: “NHS vs USA”, draws mostly on anecdotal evidence, leading to some general comments about the two systems.</p> <p>Identify and briefly explain the general verdict that the author comes to (found on page 13 of the Case Study Source Material). (3 marks)</p> <p>The author gives an explicit verdict in the two paragraphs beginning: “So to spell it out...”. It is a balanced conclusion: the British system provides the basic care and does it with no fuss and no cost to the hard-pressed family. But American technology and zest for lifestyle improvements are (sometimes) denied to those who depend wholly on the NHS. So basically there are things to be grateful for on both sides of the Atlantic.</p> <p>Up to 3 marks if both parts of the conclusion are identified (quoted or suitably paraphrased), and it is noted that the verdict is a balanced one. Otherwise 1 mark for each part correctly identified.</p>	3											

SECTION C

No.	Question	AO:	1	2	3							
Read the article entitled: <i>Put the NHS out of its misery and allow competition</i> – Document I – and answer the questions which follow. <u>Note that the questions apply to specific paragraphs.</u>												
6	<p>Give a careful <u>analysis</u> of the authors' reasoning in <u>paragraphs 1 and 2</u>.</p> <p>In your answer you should:</p> <ul style="list-style-type: none">• give a precise summary of the main conclusion• identify any intermediate conclusion (or conclusions), and supporting premises. <p style="text-align: right;">(5 marks)</p> <table><tr><td>Max 5</td><td></td></tr><tr><td>Good (5)</td><td>For a clear, accurate, and thorough exposition of the structure (and / or method), and content of the argument.</td></tr><tr><td>Intermediate (3–4)</td><td>For identifying the main conclusion and some of the main reasons or lines of reasoning.</td></tr><tr><td>Basic (1–2)</td><td>For demonstrating broad understanding of the direction of the reasoning.</td></tr></table> <p>CONCLUSION (either of):</p> <p>A variety of possible answers:</p> <p>1) The NHS is <i>not</i> among the best in the world.</p> <p>OR (more precisely):</p> <p>2) It is not among the best... <i>because</i> it is not fair and accessible etc, or efficient.</p> <p>OR: neither of the assertions in the first paragraph is correct.</p> <p>If 1) then:</p> <p>INTERMEDIATE CONCLUSION/S</p> <p>IC1: Neither of the assertions (that fair and good care is accessible to all in the UK; or that it is good value for money) is true;</p> <p>IC2: The NHS has few incentives to encourage efficiency / efficient use of resources.</p>	Max 5		Good (5)	For a clear, accurate, and thorough exposition of the structure (and / or method), and content of the argument.	Intermediate (3–4)	For identifying the main conclusion and some of the main reasons or lines of reasoning.	Basic (1–2)	For demonstrating broad understanding of the direction of the reasoning.	5		
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No.	Question	AO:	1	2	3						
	<p>PREMISES</p> <p>For IC1 (or main conclusion directly):</p> <ul style="list-style-type: none">Only the US offers poorer value for money; <p>For IC2 :</p> <ul style="list-style-type: none">NHS dominated by producer interest;political football;patients have limited choice and no recourse.										
7	<p>‘(T)he principles on which the NHS is based ... no longer make sense.’</p> <p>Assess the strength of the justification that the authors give, <u>in paragraphs 3 and 4 only</u>, for the above claim?</p> <p>(6 marks)</p> <table><tr><td>Good (5–6)</td><td>For relevant, perceptive, and <i>thoroughly</i> developed points which directly answer the question, and which show that the candidate clearly understands the issues; and for a clear and well supported judgement.</td></tr><tr><td>Intermediate (3–4)</td><td>For an appropriate response to the question, showing reasonable understanding of the issues involved and giving two or more relevant points of view which are likely to be partially supported / explained.</td></tr><tr><td>Basic (1–2)</td><td>For one or more relevant points related to the question, with some supporting or explanatory development.</td></tr></table>	Good (5–6)	For relevant, perceptive, and <i>thoroughly</i> developed points which directly answer the question, and which show that the candidate clearly understands the issues; and for a clear and well supported judgement.	Intermediate (3–4)	For an appropriate response to the question, showing reasonable understanding of the issues involved and giving two or more relevant points of view which are likely to be partially supported / explained.	Basic (1–2)	For one or more relevant points related to the question, with some supporting or explanatory development.		6		
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No.	Question	AO:	1	2	3
	<p>The argument is mainly persuasive / rhetorical, and the claim in question is largely an unsupported assertion, with little solid support. Nor is it self-evident. It would therefore be quite difficult to make a case for saying that it is <i>justified</i>.</p> <p><i>Possible justifications:</i></p> <ul style="list-style-type: none"> • R&D have made free access etc unaffordable for all. Therefore it is arguable that the NHS no longer makes sense economically. • It could also be added that the huge costs of new and hi-tech treatment could not be affordable for everyone, so the principles of the NHS cannot realistically be met without bankrupting the country. In that respect they don't make sense. • NHS is unfair because people's care is determined by luck, education etc. Queuing works and is fair for taxis but not for health care. • The first argument seems valid – if the principle is <i>impossible</i> to implement (due to affordability), then it does not make sense (as a <i>practical</i> basis for running a health service). <p><i>Possible counter-arguments:</i></p> <ul style="list-style-type: none"> • The grounds themselves are just asserted. Eg 'affordable' is not properly defined: strictly speaking anything is affordable if taxes are high enough to pay for it. It is a matter of priorities, not simply of affordability. • Generally it could be argued that the <i>principle</i> makes sense even if it is unaffordable. • It could be argued that NHS system makes <i>more</i> sense with higher costs – since it is (arguably) the only way to make sure that medicine is accessible to rich and poor alike. • In paragraph 4 the argument turns to fairness, with an analogy of a taxi queue. There is an assumption that the NHS is not a straightforward queue, but is affected by luck, education, etc. If these assumptions are correct, there is a good case for reforming the NHS, but not for saying that the <i>principle</i> is unfair, as the authors do. 				

No.	Question	AO:	1	2	3					
8	<p>Briefly explain, and critically evaluate, the reasoning in <u>paragraphs 5 and 6</u>.</p> <p style="text-align: right;">(9 marks)</p> <table><tr><td>Good (7–9)</td><td>For two or more relevant, perceptive, and <i>thoroughly</i> developed critical comments supporting or challenging the argument, and used to support an evaluative judgement about the argument as a whole. The response will demonstrate a clear understanding of the target argument.</td></tr><tr><td>Intermediate (4–6)</td><td>For two or more relevant but perhaps partially explained points relating to the effectiveness or otherwise of the argument, and / or warrant for the claims. The response will demonstrate a broad understanding of the target argument.</td></tr><tr><td>Basic (1–3)</td><td>For some relevant evaluative judgement related to the strength or weakness of the argument with some basic (usually under-developed) attempt at explanation or justification</td></tr></table> <p><i>Conclusion:</i></p> <p>The NHS must go</p> <p>OR</p> <p>The NHS must go and be replaced by a system financed through payments for services.</p> <p><i>Argument</i></p> <p>There are two strands:</p> <p>1) It is fair that those who can afford to pay should pay. Payment at the point of delivery is efficient.</p> <p>2) It is silly to argue that healthcare should be free because it is essential for life and human dignity. Therefore it is sensible that individuals should pay for health care through insurance premiums etc.</p> <p>This last sentence could be interpreted as an intermediate conclusion, or as a reiteration of the main conclusion.</p>	Good (7–9)	For two or more relevant, perceptive, and <i>thoroughly</i> developed critical comments supporting or challenging the argument, and used to support an evaluative judgement about the argument as a whole. The response will demonstrate a clear understanding of the target argument.	Intermediate (4–6)	For two or more relevant but perhaps partially explained points relating to the effectiveness or otherwise of the argument, and / or warrant for the claims. The response will demonstrate a broad understanding of the target argument.	Basic (1–3)	For some relevant evaluative judgement related to the strength or weakness of the argument with some basic (usually under-developed) attempt at explanation or justification	3	6	
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No.	Question	AO:	1	2	3
	<p><i>Some evaluative points – eg</i></p> <p>Positive:</p> <ul style="list-style-type: none">• It is fair to say that the NHS is a sacred cow that should not be compromised, and that this (by implication) prevents rational alternative proposals.• The authors base their arguments on fairness and efficiency, which are strong grounds for change.• The principle that those who can pay should is a strong premise. It does also support the conclusion that payment would be fairer, at least for some people.• Whilst the analogy is imperfect, it could be defended – eg on the grounds that food does fit the category of being essential for life and dignity. <p>Negative:</p> <ul style="list-style-type: none">• The first strand of the argument consists of two unsupported assertions. There are no grounds for saying either that people who can pay should pay; nor that payment at the point of delivery is any more efficient than payment through taxes etc.• The argument itself a straw man, since the argument for the NHS is not usually made in the way the authors imply – ie because it is essential for life and dignity: it is usually argued from the principle that the sick and the well pay equally through taxation and benefit equally when they are ill.• The analogy is a poor one. Firstly food is a constant need: illness is an occasional one. Besides, the hungry <i>are</i> fed if they can't afford food, though the benefit system.• The intermediate conclusion is weakly supported / does not follow from the analogy: there is nothing obviously more sensible about insurance.• The authors use emotive terms like sensible, and silly, rather than objective arguments.• No practical advantages are suggested to support the supposedly more sensible and efficient system.• No principle is offered to explain why one system is fairer than another.• The whole argument could be described as a series of non sequiturs.• There is an implicit false dichotomy in the last sentence: if not the current system, then the author's proposal must be adopted! <p>The points are suggestions. The responses should be marked according to the following descriptors for <i>combined</i> analysis and evaluation questions.</p>				

No.	Question	AO:	1	2	3
You may use any of the source documents when answering Question 9.					
9	<p>Imagine a future referendum in which you are required to vote on the following question.</p> <p><i>Should the UK retain a national health service where medical care is free and funded by the taxpayer, or change to a US-style system of private medical insurance?</i></p> <p>State which way you would vote and give a supporting argument for your decision by considering some of the possible consequences of each of the options.</p> <p>Give further support for your decision by introducing:</p> <ul style="list-style-type: none"> • values and principles that you consider relevant • information from the source documents and / or your own knowledge or experience. <p>Responses will be marked in accordance with the criteria in the table on page 16.</p>				26

No.	Question	AO:	1	2	3
	<p>At the centre of this task is the methodology of rational decision making which judges available options by their likely consequences. For the highest band, candidates must make specific reference to the two choices and assess the importance and likelihood of anticipated consequences of each of them. For example:</p> <p>[1] It is a practical certainty that if the US model were adopted, and medical bills were charged to the individual or insurance providers, people on low wages or benefits would either be denied adequate healthcare or would be a burden on the state. How much would this matter? Arguably, it would be no different from having the NHS paid for out of taxes. The relative advantages / costs / risks could be discussed, making use of the source materials to supply information.</p> <p>[2] If the NHS is preserved there is a somewhat less likely, but very serious, possibility that the rising cost of medicine would cause the system to collapse. The source documents could be used to assess the likelihood of this, and the knock-on effects.</p> <p>There are many other consequences that could be considered, for instance the worry and stress that the removal of the NHS may cause for those struggling to make ends meet already; also the likelihood of rising costs if profit motives and the private sector are given more of a part to play. But there are also positives to consider: the US system could provide better health care precisely because it is profit driven and more innovative as a result – see various documents for data on this. How likely is it that a UK private health service would improve in that way? How likely is it that those on low incomes would benefit from it? And so on.</p> <p>(These are suggestions, not requirements.)</p> <p>Note that candidates who do not base their essays on this methodology / strategy will not have answered the question as directed, and will not have access to the highest mark-levels. However, in some cases reference to consequences and outcomes may be implicit in the candidate's reasoning rather than systematic; and where this is recognised, credit will be given.</p> <p>In addition to practical, financial, bureaucratic considerations such as the above, the candidate should also make reference to the values and principles and ethical questions that are obviously relevant. Is it <i>morally</i> defensible to have people's healthcare dependent on their ability to pay? Is free healthcare a <i>right</i>? Is it fair for those who work hard and pay high taxes to pay for the healthcare of those on benefit, especially if they also pay for their own private care? Is it right for those who can afford to pay for private health care to receive preferential treatment? And so on.</p>				

No.	Question	AO:	1	2	3
	<p>In using sources candidates should assess the claims made and arguments raised, not just introduce them. Likewise they should argue / reason from the values and principles they raise, and the consequences they identify or predict, rather than merely mentioning. They should distinguish between principled and practical arguments in the documents that they refer to.</p> <p>Finally candidates should weigh up the advantages and disadvantages of each of the options and state which they consider the better decision.</p>				

CRITERION:	Thoroughly met, and presented in clear and appropriate language	Satisfactorily or partially met with adequate expression	Inadequately met. Basic response with some weaknesses of expression / presentation
Consequences	6 – 7 Two or more consequences discussed for each option, with understanding shown of the methodology of balancing seriousness against likelihood to support a decision	3 – 6 One or more consequences discussed for each option, with some understanding shown of the methodology	1 – 2 Some reference made to consequences
Quality of reasoning	7 – 9 Clear decision consistent with and linked to the assessment of the consequences (3) and a well-constructed argument providing support for the decision	4 – 6 Clear decision consistent with the assessment of the consequences (2) and some linking argument	1 – 3 Recognisable decision (1), and some supporting argument
Values and principles	5 Two or more or principles / values <i>discussed</i> : eg relevance explained; clashes (with other principles / values or practicalities) considered; moral dilemmas raised	3 – 4 One or more principle / values introduced with some development: eg relevance explained, problems or clashes noted	1 – 2 One or more principle / values introduced with little or no development
Critical use of the source materials (and / or own knowledge or experience)	5 Reference to two or more of the source documents and / or personal experience or knowledge with discussion of its relevance, source, reliability etc and / or appropriate inference(s) drawn from information	3 – 4 Reference to one or more of the source documents and / or personal experience or knowledge with discussion of its relevance, source, credibility, reliability, etc	1 – 2 Some reference to the documents and / or own experience / knowledge but without critical engagement

Distribution of marks across the questions and assessment objectives for Unit 4

AO Balance	AO1	AO2	AO3
Total Section A	07	07	–
Total Section B	05	05	–
Total Section C	08	12	26
Paper Total: [70] Marks	20	24	26
Paper Total: [70] Percentage	29%	34%	37%

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