**General Certificate of Education (A-level)
January 2012**

Critical Thinking   **CRIT2**

(Specification 2770)

Unit 2: Information, Inference and Explanation.

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.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Critical Thinking Mark Scheme

INTRODUCTION

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

AO1   Analyse critically the use of different kinds of reasoning in a wide range of contexts.

AO2   Evaluate critically the use of different kinds of reasoning in a wide range of contexts.

AO3   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 Section A, 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 Section B, 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 2   Information, Inference, Explanation

Section A

No.	Question	AO:	1	2	3
Questions 1 to 5 refer to Document A					
1	**Identify <u>two</u> reasons the author gives against legalising prostitution in paragraphs 3 to 5.** (*4 marks*) Answers do not require a detailed analysis of the argument's structure. Accept quotation or accurate paraphrases of either initial premises or intermediate conclusions or the examples (which are used as reasons). E.g. For 2 marks: • Prostitution is *intrinsically* brutalising, dehumanising and predatory • It is… appalling to argue that prostitution should be legally regulated • It is also hard to see how legalising prostitution would prevent such murders • If illegal activities become legal, many more people engage in them E.g. For 1 mark: • Legalising prostitution would be harmful • Prostitution is dehumanising		4		
2	**If it is true that clients are dehumanised by using prostitutes, what could explain this?** (*3 marks*) Prostitution might dehumanise the clients of prostitutes because: E.g. Clients might buy sex because they are really seeking love, but since love cannot be realised through a commercial relationship they could be dehumanised because their feelings are frustrated. E.g. Clients might be dehumanised through prostitution because it encourages them to see human relationships in terms of buying and selling and people as objects (or commodities) to be bought and sold, which misses out important human values like morality (or love). Up to three marks for a clear, plausible and developed explanation.		2	1	

No.	Question	AO:	1	2	3
3	**Explain <u>one</u> weakness of the argument in paragraph 4 that legalising prostitution would not prevent the murder of prostitutes.** (*2 marks*)		2		

Award marks according to accuracy, development and insight.

Possible weaknesses:

- **Over generalisation:** The argument relies on just one case in Glasgow to infer a general conclusion about the murder of prostitutes.

- We do not know if the number of murders in Glasgow would have been higher had the tolerance zone not been in place.

- The argument draws on evidence from the Sutcliffe case of non-prostitutes being killed which is irrelevant because the change is only intended to protect prostitutes, not eliminate the murder of all women (and the legal situation at the time was *not* reformed).

- The argument looks at single cases rather than comparing murder rates between areas where prostitution is legalised and where it is illegal.

- The argument commits the perfectionist fallacy by assuming that tolerance zones / legalisation must prevent 100% of murders.

No.	Question	AO:	1	2	3
4	**Read paragraphs 5 and 6 of Document A.**				
	To what extent does the evidence provided in paragraph 6 allow us to infer safely that legalising prostitution would hugely increase the damage it does?				
	(*4 marks*)		1	3	
	To gain marks, candidates must explain why the inference is *unsafe* either to an extent or entirely.				
	Award marks according to accuracy and development.				
	Inference assessed as unsafe:				
	Questionable analogy between the probable effects of legalising prostitution and effects of (one or more from) *legal abortion, pornography, under-age sex, drinking* and *drug-taking*.				
	• Credit significant points of disanalogy				
	• E.g. It is questionable because the most clearly harmful drugs (such as crack cocaine) *are* illegal and their use *is* widely stigmatised.				
	Selective use of cases or data				
	• A comparison with the effect of legalising homosexuality, for example would undermine her claim.				
	Relative risk increases do not show legalisation causes significant harm				
	• Cannabis hospital admissions rose 85% but we cannot tell if this is serious as we do not know how many admissions there are altogether or as a proportion of cannabis users. It could just be 17 more admissions per year from a baseline of 20, for example.				
	Post hoc ergo propter hoc or **cause correlation** fallacy				
	• Rising ill health occurred after relaxation of the law on cannabis / alcohol but that does not show that it was the cause of the rise. Good answers will suggest an alternative possible cause (e.g. increased diagnosis of cannabis-related problems due to media coverage raising awareness).				
	Flawed examples do not support legalisation as cause of harm				
	The dates do not support legal reform as the cause of cannabis admissions as the rise is from 1997 but the law changed in 2004.				

No.	Question AO:	1	2	3
5	**In paragraph 3 of Document A, the author claims that it would be appalling to argue for prostitution to be made legal because of the harm it causes.**			
	However, smoking is legal. *Cancer Research UK* **says that 35 261 people died of lung cancer in the UK in 2008 of which smoking caused around 90% of the male and 83% of the female deaths.**			
	Assess how much this new information weakens the author's claim.			
	(3 *marks*)	**1**	**2**	
	Award marks for the accuracy and development of the justification of a judgement about how far the claim is weakened, if at all.			
	The information does not weaken the author's claim because:			
	• **A fair / useful comparison cannot be made**			
	We would need *mortality rates* for smokers and for prostitutes for comparison i.e. We don't know how many people smoke and what proportion dies from doing so nor how many prostitutes there are (and so on).			
	• **The comparison is irrelevant**			
	The harm caused by smoking is self-inflicted by a free choice but many prostitutes do not freely choose to become / continue to be prostitutes.			
	• **Tu quoque**			
	It would not be right to legalise prostitution just because other harmful activities are (wrongly) legal. The author can argue that smoking should be banned too, to be consistent.			
	• **Moral harm is ignored in the comparison with smoking**			
	Document A suggests that the prime concern is the *moral* harm caused by prostitution, making the comparison with smoking at best incomplete since the information does not suggest that smoking does moral harm as well as physical.			
	• **The Cancer Research information supports the claim**			
	If smoking is legal and causes this much harm, that is a reason to fear how much harm prostitution could cause if it were legalised and became more popular (the impact of sexually transmitted disease would be one case in point).			

No.	Question	AO:	1	2	3
	The information does weaken the author's claim because: • **Unlike prostitution, smoking is both fully legal and harmful** …causing thousands of lung cancer deaths, yet it is not appalling to argue for its continued legality. Harm caused through choice is acceptable and could be for prostitution too.				

No.	Question	AO:	1	2	3
Questions 6 to 8 refer to Document B					
6	**To what extent can each of the following statements be safely inferred from the information in Document B?** **(You should assume that the data is accurate).**				
6(a)	**Of the sex workers featured in the study, on average, those who work outdoors use illegal drugs more often than those who work indoors.** **(*3 marks*)**		1	2	

Award marks for accuracy and development of an explanation in support of the judgement.

For all three marks, an answer must acknowledge the limits to the support which the evidence provides.

The inference is unsafe because:

The data on drug use does not give information on *frequency* of use.

- While 6 month and 1 month (injected) drug use is recorded, the data could be recording one-off use not regular or frequent use.

- The indoor workers could be using some drugs all the time (e.g. the Tranquillisers and Amphetamines).

The statement can be inferred with *limited* safety because:

It would be surprising, although clearly possible, that indoor sex workers use drugs more frequently than those working outdoors because in *virtually all* drug use categories surveyed, outdoor workers have a higher positive response rate.

Award one additional mark for illustrative examples in support of this point, such as:

- 63% of outdoor sex workers give "To pay for drugs" as their motivation vs 1% of indoor workers
- Illegal drugs used in past six months is higher (93% vs 69%)
- Injected drugs in past month is higher (49% vs 3%)
- The mean average use for all types of drugs is higher (39% vs 27%)

No.	Question	AO:	1	2	3
6(b)	**Over half of all respondents said that they worked as prostitutes mainly to pay for running a home and bringing up a family.** *(2 marks)*		1	1	

Answer: Safely inferred (See the Household expenses and children item)

$$\frac{32 \text{ (outdoor)} + 93 \text{ (indoor)}}{240 \text{ (total)}} = 0.52$$

Correct answer plus partially correct calculation.

Correct answer plus fully correct calculation or figure requiring it, e.g. 52% or 51.9% (N.B. candidates may not round figures as shown above) (2).

No.	Question	AO:	1	2	3
7	**For all prostitutes surveyed, what, on average, was the risk of experiencing violence in the previous six months?** **(You should assume that the data is accurate).** *(3 marks)* The prostitutes ran a 37.5% (or 38% or 3/8) risk of violent assault (3 marks). Award **one** mark for evidence of the right method with an inaccurate final figure. **Risk calculation:** (Outdoor workers x % six-month violence) + (Indoor workers x % six-month violence) _____ (Outdoor workers + indoor workers) **E.g.:** $\dfrac{(115 \times 0.5) + (125 \times 0.26)}{(115+125)} = \dfrac{90}{240} = \dfrac{3}{8}$ (37.5% or 38%)		1	2	
8	**Explain <u>two</u> reasons why we should be cautious about concluding that all prostitutes face a serious risk of violent assault from the information on violence in the study.** *(4 marks)* Award marks according to accuracy and development of points. Two reasons must be present for full marks. **The sample in the study may not be representative.** • The study features only women but some prostitutes are male or transgender and may be at a different risk of violent assault than women. E.g. The clients of male sex workers may be less likely to commit violence than heterosexual males. • All the sex workers in the study work in Leeds, Glasgow or Edinburgh, yet sex workers work across the UK. Leeds, Glasgow and Edinburgh may have relevant unrepresentative features such as violent crime rates above the national average.			4	

No.	Question	AO:	1	2	3
	• Selection of the respondents was not random, so would be expected to affect the answers received. For example, 35% of contacts were made through drop-in centres which may be places where victims of violence or those with drug problems go for help. **The risk may not be serious to all prostitutes.** • *Some* prostitutes (i.e. indoor workers) face a 1% risk of Physical Assault (Serious) in their career up to being surveyed. Some candidates may argue that a 1% risk is not a serious risk.				

No.	Question	AO:	1	2	3
Question 9 refers to Document C					
9	**Examine the graph in Document C.**				
9(a)	**Observe the data points presented in the graph.** **Briefly describe any trend in the data and what correlation, if any, is suggested.** *(2 marks)* Award marks according to accuracy and development. E.g. • The trend is for the rate of rape to slowly decrease as sex for money becomes more affordable • The rate of rape is fairly weakly negatively correlated with the affordability of sex for money • The trend relies on several points which might be describes as exceptional • The trend / correlation is too weak to be described as significant		2		

No.	Question	AO:	1	2	3
9(b)	**Based on the data in Document C a researcher recommends that we should legalise prostitution because the number of rape cases would fall.** **Assess to what extent the data in Document C supports this recommendation.** *(3 marks)*			3	
	Support for the recommendation is weak because: **Document C is not about the impact of legalisation** • The evidence presented does not justify the claim that *legal* prostitution would be cheaper than *illegal* prostitution – legal regulation to make it safe might make it more expensive (would it be taxed?). If it is *assumed* that legalised prostitution would be cheaper (e.g. by increasing supply), Document C's data still only provide weak support: **Correlation does not imply causation** • Other factors would be expected to affect the reported level of rape (e.g. social attitudes to women or police attitudes to rape could increase or decrease willingness to report the crime). **The correlation is too weak to base policy upon it** **The statistical support is outweighed by moral considerations** • Morally it would be wrong to condemn women working in prostitution to a serious risk of rape and assault, even if the total level of rape in society decreased.				

No.	Question	AO:	1	2	3
Questions 10 and 11 refer to Document D					
10	**Assess the credibility of Nikki Starr as a source of information on prostitution.**		1	2	
	(3 marks)				

Award marks for the accuracy and development of the justification of the judgment of Starr's credibility. Judgements must be justified to be credited.

Candidates should avoid unjustified accusations of bias, crude stereotypes and extreme judgements, which go beyond our limited ability to judge credibility.

Primary or secondary status of the source:

- Starr may be considered a secondary source in that she reports a newspaper to support a claim and makes general statements about the sex industry.

- This may, marginally, reduce credibility (see scope for error below), although the considered way in which the information is put forward suggests reflection on the issues which could improve credibility.

Reputation / reputability of a witness or author:

- By identifying herself as a prostitute, Starr also indicates that she works on margins of legality, reducing her credibility.

- Nikki Starr sounds like a pseudonym and the anonymity that this and the blog comments format gives make an accurate assessment of her reputation impossible (tending to undermine credibility).

Vested interest and the extent of its likely influence:

- An interest in the sex industry becoming accepted, legal and safe, in order to maximise her own income or social acceptability.

- Starr also has a vested interest to understand and know about her industry.

Scope for error:

- Starr summarises newspaper reports of a complex issue but are the journalist's facts correct? How is information on an illegal profession gathered with accuracy?

No.	Question	1	2	3
	Expertise or authority:			
	• Starr appears rational and well-informed, referring to specific and relevant campaigns, reports and figures, which enhances her credibility, even if her personal experience falls short of expertise.			
	• *The Guardian* has some credible authority as a broadsheet newspaper but its corrections and clarifications column reveals that it is not always accurate (similar points about Home Office figures may be made).			

No.	Question	AO:	1	2	3
11	**In Document D it is claimed that 'selling yourself for sex is inherently degrading'.** **Nikki Starr responds 'Don't writers sell their most intimate thoughts and feelings? Are they degraded? Do you feel ashamed for paying to read them?'** **Is her response an effective counter-argument? Why or why not?** **(4 marks)**			4	

Starr's response may be assessed as effective or as ineffective. Therefore, marks should be awarded according to how well the candidate justifies their judgement only.

1	One point but very brief, vague or largely implicit (e.g. naming a relevant flaw without explanation)
2	One clear and accurate point, but lacking detail, specificity or development (Or two points worth one mark each)
3	One clear, accurate, specific and well developed point (Or two points, one worth one mark, the other two marks)
4	One point, as above, but which also demonstrates real insight into or close analysis of the argument (Or two points worth two marks each)

Possible points:

The counter-argument is ineffective because:

Starr makes a **weak analogy**

- Writers and readers are not (physically, sexually) intimately related in the way that prostitutes and their clients must be.

- Authors need not do moral harm to their readers, nor are they morally harmed by their readers in the way that prostitution does moral harm to everyone involved (prostitution is *intrinsically* de-humanising – Document A).

- Writers do not write their most intimate thoughts and feelings (it is at best an illusion, convenient for selling books – confessional autobiography is closest to selling intimacy and it is accused of being exploitative).

- Literature is *aesthetic* whereas paying for sex is about the satisfaction of bodily desire (literature is art but sex is not).

No.	Question	AO:	1	2	3
	• Sexual intimacy is of a different order than other forms of emotional or intellectual intimacy (perhaps because of its relationship with love, reproduction or marriage). • Even if readers do share the intimate feelings of authors, this is not analogous to prostitution because prostitutes only give the *illusion* of intimacy (at most). Starr attacks a **straw man** • The original argument claimed that selling sex is inherently degrading because it involves treating others as sexual objects, not because intimate thoughts and feelings are sold. **The counter-argument is effective because:** Starr makes an **acute analogy**: • Some respected writers have thought of their work as the expression and communication of their feelings for an audience to share (e.g. Tolstoy?), yet we accept them selling their work without regarding it as degrading. • Selling intimate thoughts and feelings is acceptable if they are (or expressed as) *aesthetic* or *literary*. Starr may be implying that it is only a prejudice to think that sexual feelings may not be *aesthetic* too. **Starr argues that selling sex is not *inherently* degrading effectively** • Prostitution can involve intimate thoughts and feelings, and therefore no-one is being treated as a 'mere sexual object' in such cases, despite it being a commercial transaction.				

Section B (See Generic mark-grid Page 22)

No.	Question AO:	1	2	3
12	**Construct a reasoned case for or against the following view:** **'Prostitution need not harm anyone. Thus, we should tolerate it.'** **In presenting your case you should:** • **draw on relevant information and evidence from the source documents** • **take account of any relevant general principles** • **consider and respond to counter-arguments** • **produce a structured argument with a clearly stated conclusion or conclusions.** *(30 marks)* The statement allows a very wide range of approaches to the answer but candidates need not address a wide range of points (unless a narrow focus stops them from answering the question). Candidates may: 1. Assess the evidence as to whether or not prostitution is harmful or beneficial (to prostitutes, to clients, to their families, to the wider community). 2. Assess whether any evidence of harm comes from prostitution in-itself or rather from behaviours associated with prostitution, such as drug taking and violent crime. E.g. Arguments for or against the idea that the commercialisation of sex is itself harmful. 3. If it is not *intrinsically* harmful, could it ever be made harmless in practice? Could drug addiction, poverty and violence be eradicated from the trade? How? 4. What would the implications of tolerating prostitution be? What message would it send to society if it were tolerated? Would family relationships or marriages be affected? How? 5 Challenge an assumption of the statement: Is harm avoidance the only or most relevant principle in this case? Or, does toleration follow from lack of harm? 6 Use general principles: Identify and evaluate the use of the harm principle (this need not be named). What is to count as harm? If prostitution causes harm to the sex worker, does the fact that they *consent* to the act which causes harm make the harm irrelevant? Do sex workers consent if they are motivated by relative poverty or drug addiction?			30

No.	Question	AO:	1	2	3
	7 Use general principles: Interpret what is meant by toleration. a. Should sex work be tolerated *legally*? If so, for seller *and* buyer *and* organisers (or 'pimps')? Or should the law remain as it is now and loitering and soliciting for prostitution be illegal (i.e. tolerate payment for sex but not the social nuisances associated with it)? If it should not be legal, should it be effectively de-criminalised or not prosecuted in certain zones of cities? Would toleration be motivated by what is best for those at risk of harm – what if intolerance turned out to cause *more* harm? Should sex work be tolerated *morally*? Should sex workers have the same moral status as a doctor or more like that of an arms dealer, implying that the commercialisation of sex is immoral? Does it undermine marriage and the family? What if it is wrong *in principle* but intolerance of it would cause greater harm *or* it is wrong but has good consequences? b. Is toleration different from respect? Could a society tolerate prostitution to make it safe but nevertheless not respect or accept it? How? Should it even be *respected* as a valuable service? 8 Specific examples of arguments about exploitation and degradation from Document D could be examined. Is there an analogy with therapy? Do prostitutes provide a unique and valuable service? Is there any support from such views in the other documents? 9 Is the 'choice' of prostitutes somehow wrong or not made freely (due to drug addiction or due to self-deception about the nature of selling or buying sex)? 10 Original arguments: E.g. Is prostitution analogous to marriage, if people exchange sex for economic security in marriages? E.g. Religious arguments against prostitution (or perhaps *for* toleration).				

No.	Question	AO:	1	2	3
	Use the generic mark grid below as a guide. The final mark must reflect the overall quality of the answer as a reasoned case. High quality critical reasoning is the single most important feature to be rewarded in answers, not simply the range or quantity of reasonable points under each heading. **Examples of critical reasoning of high quality may include:** • Avoiding repetition of flaws or weaknesses in the source documents • Revealing problems with arguments not covered in Section A • Interpreting or defining important terms or concepts • Selecting significant, original points, that show insight • Justifying and expressing reasons convincingly • Making important assumptions explicit • Evaluating or justifying how reasonable assumptions may be • Use of conditional, hypothetical or suppositional reasoning • Integrating information in an argument • Sensitive, detailed discussion of the strengths and limits of evidence • Indicating how missing evidence could settle an issue • Sophisticated application of one or more general principles • Anticipating strong objections and counter-arguments as a means to demonstrate the strength of the case being made A clear conclusion or conclusions should follow securely from the arguments and evidence presented. However, this may require conclusions to be carefully worded or to be conditional, which must not be mistaken for lack of clarity.				

Generic mark-grid for Section B

Criteria	Award level		
	Level 3: Good response	**Level 2: Reasonable response**	**Level 1: Basic response**
Conclusion	4	2 – 3	1
	A conclusion is clearly stated that is supported by all the reasoning, and directly responds to the question.	A conclusion is clearly stated that is supported by most of the reasoning, and responds to the question.	A conclusion is stated that is supported by some reasoning, and responds to the question in part.
Reasoning	9 –12	5 – 8	1– 4
	The conclusion is strongly supported with reasons, contributory arguments, examples, clarification of terms, etc. which are precise and detailed.	The conclusion is supported with reasons, contributory arguments, examples, clarification of terms, etc.	The conclusion is weakly supported with reasons, contributory arguments, examples, clarification of terms, etc. which may be imprecise.
Use of information From Source Documents and/or to other relevant information or experience.*	5 – 6	3 – 4	1– 2
	Information (*must* include Source Documents) supports reasoning strongly. Information is interpreted carefully and inferences drawn from it are evaluated in detail.	Information supports reasoning. Information is interpreted and inferences drawn may not be evaluated.	Information supports reasoning weakly. Information is not interpreted. Inferences drawn may be implicit and are not evaluated.
Reference to principle	4	2 – 3	1
	One or more general principles are introduced and play a significant role in the argument. Justification of the principle may be given.	One or more general principles are introduced and play a role in the argument.	One general principle is introduced and plays a minor or unclear role in the argument.
Counter-argument	4	2 – 3	1
	One or more challenges and objections are anticipated and answered effectively.	One or more challenges and objections are anticipated and answered.	One or more challenges and objections is anticipated and partially answered.

	Good response	**Reasonable response**	**Basic response**
QWC **Quality of Written Communication**	Consistently communicates clearly and appropriately	Generally communicates clearly and appropriately	Communication may impede understanding.

* NB Candidates are not rewarded for exhibiting additional knowledge per se, but for the use they put it to in their reasoning if they choose to introduce it. Conversely, there is no penalty for not exhibiting additional knowledge: use of the documents alone is sufficient for awarding 'good response' (5-6).

Distribution of marks across the questions and assessment objectives for Unit 2

	AO1	AO2	AO3
AO Balance			
Total Section A	16	24	–
Total Section B	–	–	30
Paper Total: [70] Marks	16	24	30
Paper Total: [70] Percentage	23%	34%	43%

UMS conversion calculator www.aqa.org.uk/umsconversion