

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
2	
3	
4	
5	
6	
7	
8	
TOTAL	



General Certificate of Education
Advanced Level Examination
June 2013

Critical Thinking

CRIT4

Unit 4 Reasoning and Decision Making

Wednesday 12 June 2013 9.00 am to 10.30 am

For this paper you must have:

- a copy of the Pre-release Case Study Source Material (enclosed)
- a copy of the Unseen Source Material (enclosed).

You may use a calculator.

Time allowed

- 1 hour 30 minutes

Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Answers written in margins or on blank pages will not be marked.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 70.
- This paper consists of three sections.
 - Section A** (15 marks) contains compulsory questions based on statistical information.
 - Section B** (15 marks) contains compulsory questions based on the pre-release sources.
 - Section C** (40 marks) contains compulsory questions based mainly on **Document L** and one compulsory essay question.
- You will be marked on your ability to
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

Advice

- The recommended time allocation for this unit is as follows:
 - Section A: 20 – 25 minutes
 - Section B: 10 – 15 minutes
 - Section C: 50 – 60 minutes (including reading time for **Document L**).



J U N 1 3 C R I T 4 0 1

Section A**Answer Question 1.**

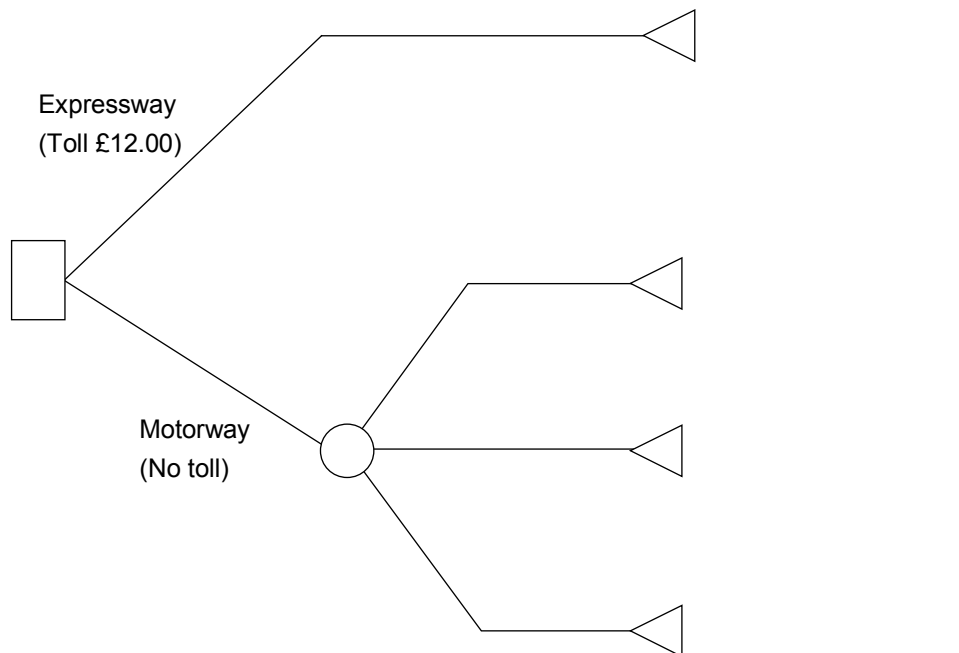
There are **15 marks** available for this section.

1 Read the following scenario.

A courier company makes around 400 deliveries a year to a client who pays bonuses to the courier company if the goods arrive punctually. The bonus is £30 if the delivery is on time, £15 if it is less than one hour late, and no bonus if it is more than an hour late.

The goods are despatched by van and the route is along a section of motorway which is often, but not always, congested. On average, 30% of all journeys on the motorway are completed without any delay, so that deliveries can be made on time and the full bonus received. But half of all the journeys are delayed by up to one hour, and 20% by over an hour.

The congestion can be avoided altogether by taking an expressway which charges a toll of £12 for a delivery van. The expressway bypasses the most congested section, effectively allowing every delivery to be made on time. So, over time, does it make better economic sense to instruct the drivers to use the expressway or to avoid the toll by using the ordinary motorway? (Note that the question arises only for the outward journey, not the return.)

1 (a) Complete the blank decision tree to represent the likely benefits and cost per delivery of each option.**(8 marks)**

1 (b) Which of the options would be better financially, and by how much over a typical year?
Briefly explain your reasoning.

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(3 marks)

1 (c) Suggest **two** other factors, besides the bonuses, which might support your decision.

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(4 marks)

15

END OF SECTION A

Turn over for Section B

Turn over ▶



Section B

Answer **Questions 2 to 4**.

There are **15 marks** available for this section.

Questions 2 to 4 refer to one or more of the Pre-release Documents A – K

2 In **Document A**, the author considers the view that ‘the golden age of motoring is over’. Critically assess the evidence and reasoning in the first three paragraphs. How much support does the evidence give for the view?

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(4 marks)

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3 In **Documents D and E** car clubs and car sharing schemes are presented in a very positive light. Suggest **two** possible drawbacks of these initiatives.

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(4 marks)

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4 This question refers to Document J

The Friends of the Earth article argues against new ‘toll roads’, but in favour of ‘variable road-user charging’.

Briefly explain the difference between these with respect to ‘choice’.

Assess the author’s environmental grounds for favouring one whilst opposing the other.

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(7 marks)

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END OF SECTION B

Turn over for Section C

Turn over ▶



Section C

Study **Document L**, provided in the insert 'Unseen Source Material',
before answering **Questions 5 to 8**.

There are **40 marks** available for this section.

5 (a) Identify the proposed solution to traffic congestion that the author, Jade Cedar, is
arguing against.

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(2 marks)

5 (b) Identify the main conclusion of Jade Cedar's argument.

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(1 mark)

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6 Explain and evaluate Jade Cedar’s reasoning in **paragraph 3** of the document.

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(8 marks)

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Turn over for the next question

Turn over ▶



7 What ethical point is being made in the ironic remark at the end of **paragraph 4**?

‘At least in a traffic jam everyone moves at the same speed, even if it is zero.’

Does it strengthen the argument?

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(4 marks)

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8 You may use any of the source documents when answering Question 8.

Suggest **two** strategies or policies for addressing the problems of road transport in the UK. (They can be policies which are discussed in the documents, or different ideas.)

Give a well-reasoned case for adopting one of the options over the other.

In the course of your reasoning you should:

- Identify some of the possible consequences of each of the options.
- Assess the consequences in terms of:
 - their likelihood,
 - their importance and
 - whether they count for or against the choice in question.
- Consider which values and/or principles should be taken into account when judging between the options.
- Refer selectively to (and/or quote from) the pre-release material where relevant; and introduce some relevant points of your own.
- Briefly, but clearly, explain your decision, and give your main reason(s) for reaching it.

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Turn over ▶



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A large rectangular area containing 25 horizontal dotted lines for writing.

Turn over ▶



