Centre Number						Candidate Number				
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For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
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TOTAL	

General Certificate of Education
Advanced Level Examination
June 2012

Critical Thinking CRIT3

Unit 3 Beliefs, Claims and Arguments

Monday 18 June 2012 1.30 pm to 3.00 pm

For this paper you must have:
- a copy of the Source Material (enclosed).

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 in the spaces provided.
- Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information
- The maximum mark for this paper is 70.
- The marks for each question are shown in brackets.
- This paper consists of two sections.
  Section A contains questions based on a belief, theory or hypothesis.
  Section B contains questions based on complex arguments or persuasive texts.
- You will be marked on your ability to use good English, to organise information clearly and to use specialist vocabulary where appropriate.

Advice
- The recommended time allocation for this unit is as follows:
  - Initial reading: up to 15 minutes
  - Section A: 45 minutes
  - Section B: 30 minutes.

Section A: Beliefs and claims

Answer **Questions 1** to **6** in the spaces provided.

Questions 1 to **5** refer to **Document A**.

1 What conclusion can be drawn from the last sentence of paragraph 1 together with the first sentence of paragraph 2?

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(2 marks)

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2 What hypothesis is the thought experiment in paragraph 2 intended to support, and how successful is it?

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(8 marks)

8

Turn over for the next question

3 At the start of paragraph 3 of **Document A**, the author considers the hypothesis that the concept of beauty is a result of different cultural influences. Is this hypothesis seriously undermined by the rest of the paragraph?

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(6 marks)

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4 150 years ago a German physicist and psychologist, Gustav Fechner, performed the following simple experiment. Subjects were each shown ten rectangles of varying proportions and asked to select the one they found most pleasing to look at. 76% chose rectangles with height-length ratios between 1:1.50 and 1:1.75, with a peak at 1:1.62 (1:φ)

Critically assess this data as support for the hypothesis that beauty is linked to the Golden Ratio.

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(4 marks)

4

Turn over for the next question

5 In **Document A**, paragraph 11, the following statement is made:

'All in all, there is so much confirming evidence for the Golden Ratio theory of beauty that it has to be taken seriously.'

Based on the material in paragraphs 7–10, do you agree?

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(6 marks)

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Question 6 refers to **Document B**.

6 Based on the dialogue, how plausible is Jackie Stedall's claim that the architects of the Parthenon may **not** have had the Golden Ratio 'in mind'?

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(6 marks)

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Turn over for Section B

Section B: Arguments

Answer **Questions 7** to **10** in the spaces provided.

7 Re-read paragraph 8 of **Document A**.

'All manner of merchandise and packaging approximates closely to the proportions of the Golden Rectangle: credit cards, cameras, laptop-computers; many books, posters, picture frames.... If it is true that these proportions are pleasing to look at, that would be a good reason for designing them accordingly. If two very similar products are on display side by side, and the only difference between them is their shape, which is the consumer more likely to choose? Clearly the one that is visually more attractive.'

7 (a) This may be understood as an argument to the best explanation. If it is, what is its implicit conclusion?

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(2 marks)

7 (b) Suggest **one** counter-argument that could be made against the author's reasoning.

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(4 marks)

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8 Read the following argument

'Okay, so the ratio of 1 to phi is the same as the ratio of phi to 1 plus phi, and so on until infinity; and no other number has that property. Right? I'll admit the mathematical fact is fascinating. But I'm not saying, 'wow, isn't that *beautiful*', because in the end a number is just a number, and numbers are abstract things that humans have invented. Beauty is in physical things that you can see and touch and find in the real world around you. And anyway, how is 1.618 more beautiful than 1.619, or 1.719, or 1.8 or 25, or – you see what I'm saying? When does the length of some line, or the shape of some rectangle, stop being beautiful and start being ugly? Tell me that.'

Critically evaluate the above counter-argument to the mathematical theory of beauty.

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(8 marks)

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Question 9 refers to **Document C**.

9 Assess the argument presented in **Document C** based on Dr Marquardt's research and accompanying images. Are the author's claims and inferences convincing, or are there grounds for scepticism?

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(9 marks)

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Question 10 refers to **the photograph and quotation below**.

'People today confuse beauty with youth, glamour and celebrity. Real beauty is none of these.'

10 With reference to the above photograph and quotation, state your view of what real beauty is, accompanied by a short supporting argument.

(Note that you may choose to defend one of the views expressed in the documents or offer an alternative hypothesis of your own.)

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(15 marks)

15

END OF QUESTIONS

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