



**ADVANCED GCE**  
**CRITICAL THINKING**  
 Unit 4: Critical Reasoning

**F494**

Candidates answer on the Answer Booklet

**OCR Supplied Materials:**

- 8 page Answer Booklet
- Answer Sheet
- Resource Booklet

**Other Materials Required:**

None

**Tuesday 9 June 2009**  
**Afternoon**

**Duration:** 1 hour 45 minutes



**INSTRUCTIONS TO CANDIDATES**

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the spaces provided on the Answer Booklet.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Section A contains multiple-choice questions which you should answer on the Answer Sheet provided.
- Do **not** write in the bar codes.

**INFORMATION FOR CANDIDATES**

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **110**.
- You should spend no more than 40 minutes answering Section A.
- On completion of Section A move directly on to Section B.
- You will be awarded marks for the quality of your written communication in Section B.
- This document consists of **12** pages. Any blank pages are indicated.

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**Section A: Multiple Choice**

Answer **all** questions in this section of the paper using the separate answer sheet provided.

You are advised to spend no more than 40 minutes on this section of the paper then move directly on to Section B.

**1** Which of the following is an argument?

- A** Every young person should be able to choose an apprenticeship, just as they can choose university. Apprenticeships offer the opportunity to work with a master of a craft and learn from them.
- B** A defendant has to be found guilty beyond all reasonable doubt. The defendant probably assaulted the policewoman but there is room for doubt. So the jury should find the defendant not guilty.
- C** Playgrounds for the over-60s are popular in Germany, and now Manchester has one. They are intended to encourage older people to stay playful and active, and include swings, see-saws and ski-walkers.
- D** Children's TV these days is not as good as it was in the 1970s. Parents should watch TV with their children and explain what is happening. **[1]**

**2** Which of the following is a valid argument?

- A** All hermits enjoy being alone. You enjoy being alone. You must be a hermit.
- B** All the well-off own castles. You own a castle. You must be well-off.
- C** Only hermits enjoy being alone. You enjoy being alone. You must be a hermit.
- D** Only the well-off own castles. You do not own a castle. You cannot be well-off. **[1]**

- 3** It is wrong to trick children into believing in Santa Claus. It is not just harmless fun but harmful in many ways. Parents provide elaborate 'evidence' for their children such as icing sugar footprints, empty glasses of milk and half-eaten carrots. This is deceitful, so it breaches the fundamental trust between parent and child. Staging 'evidence' also undermines the child's developing ability to draw conclusions from evidence. Threatening children with Santa's anger if they misbehave also encourages lazy parenting and can lead to children being unreasonably anxious and fearful. A belief in a magical gift-giver also makes children more materialistic. They write letters to Santa demanding long lists of toys. Children do not learn the connection between effort and reward if everything they want 'appears' from Santa.

'It is wrong to trick children into believing in Santa Claus.'

What is the function of this element in the structure of the argument?

**A** Counter argument.

**B** Intermediate conclusion.

**C** Main conclusion.

**D** Reason.

[1]

- 4** 'A belief in a magical gift-giver also makes children more materialistic.'

What is the function of this element in the structure of the argument in Q3?

**A** Evidence.

**B** Intermediate conclusion.

**C** Main conclusion.

**D** Reason.

[1]

- 5** 'Uncovering the lies about Santa does not do children any harm. My son was relieved when he worked it out because the world made sense again.'

This response to the argument is best described as:

**A** Additional evidence for the conclusion.

**B** Effectively countering the argument.

**C** Failing to counter the argument.

**D** Irrelevant.

[1]

- 6** New European laws will standardise food labelling across Europe. It will be compulsory to clearly display the amounts of sugar, salt, saturated fat, carbohydrates and energy on the front of packaging. These amounts should be displayed as a percentage of a guideline daily amount (GDA). Although the EU has not adopted the easy-to-understand traffic light system of food labelling, this legislation is a positive step forward because it defeats Europe's powerful food industry, which is lobbying for a system of self-regulation, and because clear food labelling will significantly reduce levels of obesity in Europe.

Which of the following is the main conclusion of the argument?

- A** Clear food labelling will significantly reduce levels of obesity in Europe.
- B** The EU has not adopted the easy to understand traffic light system of food labelling.
- C** These amounts should be displayed as a percentage of a guideline daily amount (GDA).
- D** This legislation is a positive step forward. **[1]**

- 7** Which of the following is an assumption underlying the argument?

- A** Food companies have a vested interest in people continuing to eat unhealthy food.
- B** Food labels showing percentages of GDA for fat, salt and sugar will be difficult to understand.
- C** Not knowing which foods are unhealthy is often the cause of obesity.
- D** Without legislation, we will not be able to significantly reduce obesity in Europe. **[1]**

- 8** A system of self-regulation by the food companies would be a bad thing.

What is the relationship of this additional statement to the structure of the argument above?

- A** Assumption which acts as a reason.
- B** Conclusion which can reasonably be drawn from the argument.
- C** Principle which would support the argument.
- D** Restatement of part of the reasoning. **[1]**

- 9 Although hardcore games and the consoles they run on get most of the media attention, hardcore gamers are no longer the mainstream of gaming evolution. Softer games are triumphing by every sales measure. Nintendo has sold 20 million Wii consoles, which are mostly known for mildly interactive sports games such as fishing, golf and tennis, whilst only around 8.5 million PS3 consoles and 16.8 million Xbox consoles (the best for hardcore games) have been sold. The top selling games in the US for 2007 do include the complex, violent Halo3 and Call of Duty, in first and third place in the chart. But Wii Play, which includes soap bubble catching and chess, was the second highest seller, and Guitar Hero was fourth. The reason for this is that most people who buy games are not looking for mind-twisting complexity and state of the art graphics. They are happy with good enough versions of popular games and sports.

Adapted from C Arthur, *How hardcore gamers are being pushed aside by the soft surround*,  
31 January 2008, © Guardian News & Media Ltd 2008

Which of the following is a further conclusion that can be drawn from the argument above?

- A Games companies should ensure that they develop both hardcore and softer games.
- B Games companies should develop only softer, simpler games.
- C Games companies should reduce their development of complex, hardcore games.
- D Games companies should think of new ways of appealing to the market. [1]

- 10 'Hardcore gamers confuse complexity with difficulty. The rules of chess or golf are easy to understand but people spend a lifetime trying to be successful at these games.'

What effect does this additional comment have on the strength of the argument?

- A It effectively counters it by showing that hardcore gamers could enjoy games such as chess or golf instead of more complex, violent games.
- B It neither strengthens nor weakens the argument because it is irrelevant to whether hardcore gamers are in the mainstream of gaming evolution.
- C It strengthens the argument by showing that games such as golf and chess are significantly better than complex, violent games.
- D It weakens the argument because it shows that hardcore gamers could rejoin the mainstream of gaming evolution. [1]

11

## Summer 20% less boring than school.

A survey by the Birmingham Museum of Science and Discovery has found that 77% of children find the summer holidays boring, at least some of the time. However, this wasn't as bad as school, which weighed in with a boredom-rating of 97%.

[http://www.raisingkids.co.uk/trav/trav\\_20.asp](http://www.raisingkids.co.uk/trav/trav_20.asp)

This headline can best be described as a conclusion which:

- A** Can reasonably be drawn from the information in the passage.
- B** Cannot be drawn from the information in the passage because it is based on a misinterpretation of the statistics.
- C** Is too strong to be drawn from the information in the passage because it overstates the issue.
- D** Is too weak to be drawn from the information in the passage because it understates the issue.

[1]

12 Which of the following is an argument?

- A** It is difficult to find out what the most common typos in English are. The misspelling, 'becuase' gets nearly five million hits on an internet search; 'accomodate' gets around six and half million hits; 'definatly' scored seventeen and a half million. But many typos are also real words; mistyping 'from' can produce 'form.'
- B** One of the world's largest salamanders is known as the snot otter because it produces slightly toxic mucus to cover its whole skin. This mucus should protect it from predators. These salamanders are also slightly wrinkly.
- C** Stubbins Ffirth, a trainee doctor in the nineteenth century believed that yellow fever was not infectious. He set out to prove that, no matter how much he exposed himself to yellow fever he would not catch it. He even drank patients' 'fresh black vomit.' He was wrong, though. Yellow fever can be caught from mosquitos.
- D** The British state collects more information about individuals than the East German secret police did under communism. They also frequently lose this information. One example of this is the loss of unencrypted discs with the names, addresses and bank details of millions of people. It would be best if we resisted projects such as ID cards.

[1]

- 13** Although recorded music is a wonderful advance with many advantages, live music provides a far superior experience. The emotional thrill of listening to real people producing real sounds far exceeds the everyday experience of sitting alone listening to electronic pulses. Even the sound of high-quality modern surround-sound systems cannot compare with being immersed in the music at a live concert. Concerts also have the advantage that the audience can see the musicians, make a real connection between the sounds and the people and thus perceive the music as an essentially human activity. Everyone should therefore listen to live music as often as possible. Listening only to recorded music would be as satisfying as reading the menu in a restaurant but never actually eating the food.

Which of the following is the main conclusion of the argument?

- A** Everyone should therefore listen to live music as often as possible.
- B** Live music provides a far superior experience.
- C** People in concerts can perceive the music as an essentially human activity.
- D** Recorded music is a wonderful advance with many advantages.

[1]

- 14** Which of the following best expresses a weakness in the analogy?

- A** Live music can be played badly, just as food can be burned. In both cases the product is unsatisfying.
- B** Recordings allow us a significant part of the experience of listening to music, whereas menus do not allow us a significant part of the experience of eating food.
- C** Someone in a restaurant can smell the food, which is a significant part of the experience of eating, just as someone listening to a recording can hear the music.
- D** You cannot normally see the chefs cooking in a restaurant, whereas you can normally see the musicians playing at a live concert.

[1]



- 15** Those who oppose the charitable status of independent schools should consider the weakness of their position. Many of them argue that people should not make a profit from education. This objection to independent schooling does not stand up. The state sector routinely employs private, profit-making companies to provide the cleaning, catering and buildings. It also continues to strip schools of their assets, most notably by selling sports fields for housing estates. Independent schools, on the other hand, are not-for-profit organisations which cherish their grounds. Furthermore, independent schools provide the best possible education with an atmosphere and ethos that inspires their students. As a result, former pupils tend to be grateful and consequently donate the money which allows independent schools to provide bursaries to able and talented students from low-income families. This is a form of altruistic charitable donation.

Which of the following is the main conclusion of the argument?

- A** Former pupils donate the money which allows independent schools to provide bursaries to able and talented students from low-income families.
- B** This is a form of altruistic charitable donation.
- C** This objection to independent schooling does not stand up.
- D** Those who oppose the charitable status of independent schools should consider the weakness of their position. **[1]**

- 16** ‘People should not make a profit from education.’

What is the function of this element in the structure of the argument?

- A** Principle which is shown not to provide an effective counter argument.
- B** Principle which provides effective support for the author’s own argument.
- C** Reason used in a counter argument which is shown to be inaccurate.
- D** Reason used to support the author’s own argument. **[1]**

- 17** ‘Just because independent schools generate one form of altruistic, charitable donation does not mean that they are essentially charitable institutions.’

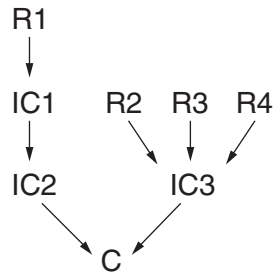
This additional comment is best described as:

- A** Disagreement with the reasoning.
- B** Explanation of a flaw in the reasoning.
- C** Principle which would counter the reasoning.
- D** Restatement of part of the reasoning. **[1]**

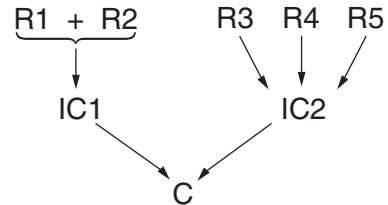
- 18** Planning permission should not be given for further high rise towers in Britain's cities. They are ugly. So they make us feel brutal and therefore contribute to urban violence. People do not want to live in high-density accommodation, because they feel unsafe, there are limited play areas for children and tenants become isolated.

Which of the following diagrams best represents the structure of this argument?

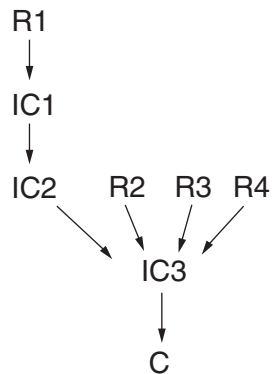
**A**



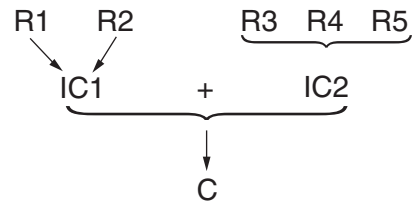
**B**



**C**



**D**



[1]

- 19 A university professor has caused controversy by forbidding first year students from using information found on the internet in their essays. She says that this is because they have not learned the critical thinking skills that would enable them to discriminate between unsubstantiated anecdote and high-quality, peer-reviewed, scholarly work. If students give the same credibility to every piece of information, the effect is to 'flatten expertise'. She wants her students to become dynamic, critical thinkers who have learned how to evaluate information before they use the internet.

The passage above is best described as an:

- A Argument which concludes that a professor has forbidden first year students from using information found on the internet in their essays.
- B Argument which concludes that students should become dynamic, critical thinkers.
- C Explanation of how critical thinking can help students discriminate between unsubstantiated anecdote and peer-reviewed scholarly work.
- D Explanation of why a professor has forbidden first year students from using information found on the internet.

[1]

20

Sir,

This professor's ban of the internet is the action of an illogical, pre-technological dinosaur with no place in the modern world. Far from 'flattening expertise,' search engines prioritise websites according to their popularity. The internet is capable of bringing facts, opinions and ideas to more people than any other form of technology in the history of the world. University professors must welcome the internet rather than banning it.

Yours,

K Bleat, London.

Which of the following is **not** a weakness in this response to the professor's proposal?

- A Attacking the professor rather than her reasoning.
- B Confusing cause and effect.
- C Confusing popularity with expertise.
- D Misrepresenting the professor's reasoning.

[1]

## Section B: Analysing and evaluating argument

Read 'Let's legalise cloning' by Hugh McLachlan, and answer questions 21 to 24.

### Analyse

- 21** Name and briefly explain the function of the following elements in the structure of McLachlan's argument:
- (a) 'Yet in other areas of reproduction (or life in general) safety alone is not seen as sufficient grounds to make something illegal.' (paragraph 4) [2]
  - (b) 'In a free society, actions should be legal unless there is a case for making them illegal.' (paragraph 10) [2]
- 22** Analyse in detail the structure of the reasoning in paragraph 3 by identifying elements of reasoning (eg reasons, conclusion, assumptions etc) and showing their relationship to each other. [13]

### Evaluate

- 23** How effectively does McLachlan respond to arguments against legalising human cloning? (paragraphs 2 to 9) [13]

In your evaluation you should refer selectively to key strengths and weaknesses, which may include:

- Flaws in the reasoning and their impact on the strength of the reasoning
- Assumptions which must be made and their impact on the strength of the reasoning
- The effectiveness of the use of evidence and examples.

### Develop your own reasoning

- 24** Freedom of choice should always be limited.

Write your own argument to support or challenge this claim. [18]



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