



Cambridge International AS & A Level

THINKING SKILLS

9694/22

Paper 2 Critical Thinking

October/November 2023

1 hour 45 minutes



You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **all** questions.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

INFORMATION

- The total mark for this paper is 50.
- The number of marks for each question or part question is shown in brackets [].

This document has **8** pages. Any blank pages are indicated.

Section A

Study the evidence and then answer Questions 1 and 2.

Source A**Extract from textbook *An Introduction to Evolutionary Genetics for University Students***

Lactose* is a sugar that occurs in milk and in most dairy products. Babies and young children are able to break down lactose in the gut because they naturally produce large amounts of the enzyme lactase*. After about the age of 5, three-quarters of the world's population are no longer able to digest milk because they cease to produce lactase.

However, some people inherit genes which enable them to keep producing lactase throughout their lives. This means they can digest milk as adults. This ability to keep producing lactase was first caused by a genetic mutation some 10 000 to 12 000 years ago, at the time when some communities changed from being hunter-gatherers to herding animals for meat and milk. It seems to have occurred in several different parts of the world at about the same time. The mutation is now found more commonly amongst some ethnic groups than others. People who originate from north-west Europe or some parts of Africa often can digest lactose, whereas those who originate from Asia usually cannot.

**Be careful not to confuse these two words.*

Source B**Home medical website**

Lactose intolerance is a digestive problem which causes patients to be unable to digest milk and milk products. Because people with this condition are unable to process lactose, it stays in the digestive system, where it is fermented by bacteria, causing symptoms such as abdominal cramps, bloating and diarrhoea.

Patients with lactose intolerance should avoid milk and milk products. Over time, however, this can lead to malnutrition and an increased risk of developing brittle bones.

Source C**Website of Association of Milk Producers**

The consumption of milk is an essential part of a healthy life. That is not surprising, since milk is designed to meet all the nutritional needs of new-born animals. Milk contains a wide range of nutrients, including vitamins, minerals, proteins, healthy fats and antioxidants. It includes various substances that benefit bone health, such as calcium, vitamin D, phosphorus and magnesium, and thus may reduce the risk of fractures. Consuming milk and milk products may reduce age-related muscle loss and promote muscle repair after injury or exercise. Some studies have suggested that drinking milk may prevent weight gain. In the words of a wise old slogan, we should all 'Drink a pinta milka day.'

Source D

Website of animal welfare campaign

Milk is not as beneficial to health as its producers claim. Milk contains saturated fat and cholesterol, which have been linked to many diseases. Cow's milk is one of the most common food triggers for eczema and asthma. It can also increase hormone levels, which may cause skin problems.

Source E

Extract from book *A Short History of Education in England and Wales*

Following the Second World War, the UK Government introduced several measures to improve the health of children, many of whom suffered from malnutrition caused by poverty and the hardships of the war. As a result of the Free School Milk Act 1946, a small bottle of milk was provided every school day to every child in school up to the age of 18. Despite political opposition, the provision of free milk was limited to children under the age of 11 in 1968 and three years later the age limit was lowered to 7. Free milk is now provided only to children under the age of 5, in pre-school facilities.

- 1 (a) Assess the reliability of Source A. [4]
- (b) In some countries, milk substitutes are now available. Soya milk, almond milk and oat milk do not contain lactose.
- How reliably can it be concluded that these products will enable patients to avoid the health problems described in Source B? [2]
- (c) Identify and explain **two** weaknesses in the support which Source C gives to its claim that 'The consumption of milk is an essential part of a healthy life.' [4]
- (d) Is Source D an argument? Justify your answer. [2]
- (e) Suggest **two** explanations for why the number of children receiving free school milk in the UK has gradually been reduced (as stated in Source E). [2]

- 2 You are advised to spend some time planning your answer before you begin to write it.

'Everyone should drink a pint of milk a day.'

To what extent do you agree with this claim? Write a short, reasoned argument to support your conclusion, using and evaluating the evidence provided. [8]

Section B

Read the following passage and then answer Questions 3, 4 and 5.

- 1 Citizens in a democracy often claim that the quality they look for most in politicians is truthfulness, but their behaviour shows that they actually want politicians to lie. One candidate in an election might offer a realistic programme for the future in the light of the available resources, whereas the other candidate might promise higher benefits and lower taxes; almost everyone would realise that the second candidate was lying, but he or she would still be elected with a huge majority.
- 2 Many decisions which governments make must remain secret until they are announced in the correct way. It damages the authority of parliaments if important policies are divulged by journalists before being announced to the elected representatives of the people. More significantly, speculators can make huge undeserved profits and destabilise a national economy if they know in advance or guess correctly that a government intends to take dramatic action affecting the economy, such as devaluing the currency.
- 3 Every nation spies on other countries and it would be wrong for this to happen without the knowledge and consent of government ministers. However, governments cannot admit that they engage in espionage and if agents are discovered and arrested, their own government must deny that they are spies. Politicians must do whatever it takes to conceal the truth if they are questioned about espionage.
- 4 The circumstances preceding the outbreak of war always include increasing tensions and provocative actions on both sides, but in order to obtain popular support for a declaration of war each side has to portray the other as the aggressor, whether it is true or not. National leaders may therefore need to make claims which they know to be misleading. If they are criticised for lying in order to justify entering a war, they can reasonably reply that other politicians have often lied for less worthy motives.
- 5 It is therefore sometimes necessary for politicians to lie. Anyone who imagines that politicians can always tell the truth must be an idealist who knows nothing about real life.
- 6 It is sometimes suggested that politicians who are asked for information which they cannot reveal should refuse to answer. That would not solve the problem, because if politicians refuse to say whether or not they are in an adulterous relationship or are planning to devalue the currency, everyone will interpret their silence as an admission.

- 3 (a) Using the exact words from the passage as far as possible, identify the *main conclusion*. [2]
- (b) Using the exact words from the passage as far as possible, identify **two intermediate conclusions** from paragraphs 1 to 3. [4]
- (c) Using the exact words from the passage as far as possible, identify **one counter-assertion**. [2]
- (d) Identify **one unstated assumption** required by the reasoning in paragraph 4. [2]
- 4 (a) Identify and explain **one** flaw or weakness in the reasoning in paragraph 1. [3]
- (b) To what extent is the reasoning in paragraph 3 weakened by the generalisation in the first sentence? [2]
- (c) To what extent is the reasoning in paragraph 4 weakened by the flaw of *counter-attack (tu quoque)*? [3]
- (d) Identify and evaluate **one** flaw or weakness in the reasoning in paragraph 5. [2]
- 5 *You are advised to spend some time planning your answer before you begin to write it.*

'It is always wrong to tell lies in personal relationships.'

Write your own short argument to support **or** challenge this claim. The conclusion of your argument must be stated. Credit will not be given for repeating ideas from the passage. [8]

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