
THINKING SKILLS

Paper 2 Critical Thinking

9694/22

October/November 2018

1 hour 45 minutes

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

An answer booklet is provided inside this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

Answer **all** the questions.

The number of marks is given in brackets [] at the end of each question.



This document consists of **6** printed pages, **2** blank pages and **1** Insert.

1 *Study the evidence and answer the questions that follow.***Source A****News report**

A very serious accident was narrowly averted at the Ridgetown Air Show last Saturday. While an aerobatic manoeuvre was being performed, the wing of the aircraft brushed the treetops and the plane veered off course. The pilot managed to regain control but at one point it looked as if the plane was going to crash onto the spectators. People started running away in a panic and stewards struggled to control the situation. There were some minor injuries due to people falling over and being trampled by the crowd.

Source B**Statement by the pilot**

I was just in the process of completing a manoeuvre known as 'looping the loop' when I experienced a loss of power. The plane I was flying was a vintage World War 2 plane but it had been well-maintained. The loss of power meant I was closer to the ground than I should have been and the wing clipped the trees. It was a nasty moment but I was able to regain control, luckily.

Source C**Statement by aviation safety expert**

I have had a concern for some time about the safety of spectators at air shows. Often a very old aircraft is made to do a manoeuvre that the original pilots would have attempted only in extreme situations (e.g. being at risk of being shot down by enemy fire). Whilst there are regulations governing maintenance and air-worthiness, nothing can alter the fact that they are old and therefore never as reliable as a modern piece of machinery would be. A lot of discretion is allowed to organisers of air shows and pilots to judge what manoeuvres the plane is capable of.

Source D**E-mail from pilot of plane involved in incident to a friend**

So it's 'chocks away' on Saturday! As usual the organisers want me to maximise the thrill element and fly as close to the crowd and the ground as regulations permit. They have hinted at a bonus if I bend the rules a little. I wish they would spend a bit more on infrastructure – the queues for the toilets are terrible!

Source E**Statement from retired pilots' association**

Our members tend to be well-off in retirement, with good pensions and a reasonable level of savings, having been in a well-paid job. If some of them choose to participate in air shows it is not because they need the money. The main motivation is to go on exercising the skills they have and do exciting things with aircraft that would probably not have gone down well with their passengers when they were flying for commercial airlines. As an older age group, they were used to a world in which there were fewer regulations; many share a view that the world of flying and, indeed, the world in general, is now over-regulated.

- (a) How reliable is the evidence given by the pilot in Source B? [3]
- (b) Give **three** reasons why the evidence in Source C is useful. [3]
- (c) How relevant to the incident is the statement in Source E? [3]
- (d) How likely is it that a loss of power caused the incident at Ridgetown Air Show?
Write a short, reasoned argument to support your conclusion, with critical reference to the evidence provided and considering a plausible alternative conclusion. [6]

2 Study the evidence and answer the questions that follow.

Source A**Extract from economics textbook**

A country's wealth is usually assessed using a measure called Gross Domestic Product (GDP). Using this measure, the United States is the wealthiest country with \$15 684 800 000 000 and Tuvalu in the South Pacific the poorest with a figure of \$37 874 581. However, per capita GDP needs to be taken into account. This is the GDP figure divided by the population of the country. On this basis, Luxembourg is the richest country, with a per capita GDP of \$107 206, and the Democratic Republic of the Congo the poorest with a figure of \$237. Even this measure does not take into account inequalities of wealth within a country. Some of the poorest people in the world live in the countries with the highest GDP, and the global rich list contains individuals from those with the lowest.

Source B**Data from two areas of a country**

<i>Percentage of households owning at least one car</i>	<i>Population density</i>	<i>Average income per household</i>
80%	5 per km ²	\$25 000
50%	500 per km ²	\$75 000

Source C**Extract from journal article**

Discussions of poverty on a global basis have usually associated poverty with starvation and malnutrition. Malnutrition can be defined as the condition that develops when the body does not get enough of the vitamins, minerals and other nutrients it needs to maintain healthy tissues and organ function. However, in richer countries (i.e. those with a high GDP) poverty is associated with obesity – poor people are too fat, not too thin.

Source D**Extract from textbook on poverty**

In the early 19th century in England many social commentators were attracted to the concept of an objectively definable 'absolute poverty'. Any assistance offered by the state should go only to those in absolute poverty who were deemed to deserve such help. Whilst the concept of an objectively definable 'absolute poverty' is attractive, it is difficult to pin down exactly what it is, and modern commentators suggest poverty has to be defined relative to the social conditions of the time. Somebody in a modern developed society without access to a flush toilet would be poor, but even the king in mediaeval France would not have enjoyed this facility. Politicians could and did argue that people should have saved for their old age. However, this was a bit harsh given that the economic theorists of the time argued that the market would keep wages at a subsistence level, i.e. just enough to live on.

- (a) Look at Source A. Can we reliably conclude that the inhabitants of Tuvalu have a low level of income? Explain your answer. [2]
- (b) Suggest **two** explanations for the pattern of car ownership shown in Source B. [4]
- (c) According to the information in Source C, is it possible to be both malnourished and obese? Explain your answer. [3]
- (d) 'Using GDP figures is not helpful when discussing poverty as experienced by individuals.'

To what extent do you agree with this claim? Write a short, reasoned argument to support your conclusion, using and evaluating the information provided in Sources A–D. [6]

3 *Read the passage and answer the questions below.*

- 1 One of the most annoying features of the modern world is the electronic alarm. It probably seemed a good idea for banks and cars to have alarms to alert people to a robbery or theft being committed, but the reality is that when an alarm does go off most people ignore it. There are many necessary evils in the modern world, but the alarm is an unnecessary evil. The only effect of these devices is to create a loud and annoying noise, especially when people are trying to sleep.
- 2 Alarms are ineffective. This was shown by the case of a jewellery robbery in 2015. Thieves managed to tunnel into a vault containing jewellery worth many millions of dollars. They did set off an alarm, which the security firm reported to the police, but the call was graded by police call-handlers as not needing any follow up.
- 3 Many things contribute to noise pollution in modern life – cars, planes and other machinery. However, these things are useful and essential to the maintenance of a modern lifestyle. Alarms make no such contribution, so they are useless.
- 4 Cars are now fitted with a device called an immobiliser, which means that a thief has to have the ignition key in order to start the engine. Car thefts have declined massively since immobilisers have been introduced. This shows that alarms are unnecessary.
- 5 Productivity is significantly affected because many hours of work are lost through fire alarms going off in offices by mistake. When this happens everybody has to evacuate in case it is not a false alarm. Workers are told to leave their desks as quickly as possible, meaning they are often only wearing light clothing. In cold and wet weather this means they are exposed to the elements and many develop colds and flu. This puts a massive strain on health services, and a number of unnecessary deaths occur as a result of health staff being unable to give their full attention to urgent cases.

- (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 **three** intermediate conclusions. [3]
- (c) Evaluate the strength of the reasoning in the argument. In your answer you should consider any flaws, unstated assumptions and other weaknesses. [5]
- (d) 'We should learn to live with noise.'

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. [5]

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