
THINKING SKILLS

9694/21

Paper 2 Critical Thinking

October/November 2014

1 hour 45 minutes

Additional Materials: Answer Booklet/Paper

READ THESE INSTRUCTIONS FIRST

If you have been given an Answer Booklet, follow the instructions on the front cover of the booklet.

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

Do not use staples, paper clips, glue or correction fluid.

DO NOT WRITE IN ANY BARCODES.

Answer **all** the questions.

Start each question on a new answer sheet.

At the end of the examination, fasten all your work securely together.

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

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

- 1 Study the evidence and answer the questions that follow.

Source A**Memo**

from Deputy Headteacher to Headteacher

I urge you to cancel the rugby match between staff and students which has been arranged for next week. Several members of my Sixth Form English class have warned me in confidence that two of the senior boys are telling their friends they are going to use the match as an opportunity to injure Mr Perez, who is due to play in the staff team. I think you know that Mr Perez is unpopular with the senior boys, although I have never understood why.

Source B**Memo**

from Headteacher to Deputy Headteacher

Thank you for your concern about the rugby match. I have spoken to the captain of the boys' team, and he has assured me that the game will be played fairly. In view of that assurance, I don't think I have any grounds to cancel the fixture.

Source C**Memo**

from Deputy Headteacher to Headteacher

As you know, Mr Perez was injured in the rugby match. I was watching the match, and it seemed obvious to me that two of the players in the school team intended to injure Mr Perez. Every time the ball went in his direction, they ran towards him as fast as they could. I couldn't see exactly what happened, but the two players crashed into Mr Perez, and he was bleeding from the nose. I accompanied him to the hospital, where an X-ray later confirmed that his nose was broken. Mr Perez has generously stated that accidents do happen in sport and that he has no reason to suppose he had been injured deliberately. However, I urge you to report this incident to the police, so that the two boys can be charged with assault.

Source D**Memo**

from Referee to Headteacher

I could not see the incident very clearly, because I was running to catch up, but it is perfectly normal for players on one side to tackle anyone on the other side who has the ball, and in sports involving bodily contact, players do sometimes get hurt. I did not award a penalty against either of the boys, because I had not seen exactly what happened.

- (a) How useful is Source B in deciding whether Mr Perez was injured deliberately or by accident? Justify your answer. [3]
- (b) How significant would it be if the two boys who injured Mr Perez were **not** the ones mentioned in Source A? [2]
- (c) How reliable is the Deputy Headteacher's claim in Source C that two players in the school team had deliberately injured Mr Perez? [4]
- (d) How do you think Mr Perez was injured? 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

News report

Researchers at the University of Warwick linked a lack of sleep to a range of disorders which often result in early death.

Professor Francesco Cappuccio said: “If you sleep less than six hours per night and have disturbed sleep you stand a 48% greater chance of developing or dying from heart disease and a 15% greater chance of developing or dying from a stroke. The trend for late nights and early mornings is actually a ticking time bomb for our health so you need to act now to reduce your risk of developing these life-threatening conditions.”

Professor Cappuccio added: “There is an expectation in today’s society to fit more into our lives. The whole work/life balance struggle is causing too many of us to give up precious sleeping time to ensure we complete all the jobs we believe are expected of us. But in doing so, we are significantly increasing the risk of suffering a stroke or developing cardiovascular disease resulting in, for example, heart attacks.”

He also warned of the implications of sleeping too much, more than nine hours at a stretch, which may be an indicator of illness, such as cardiovascular disease.

Source B

Research results

Total number of participants: 9781

Total number of deaths in 20 years: 566

	<i>5 hours’ sleep or less</i>	<i>6 hours’ sleep</i>	<i>7 hours’ sleep</i>	<i>8 hours’ sleep</i>	<i>9 hours’ sleep or more</i>
<i>Participants</i>	587	2642	4884	1579	89
<i>Deaths</i>	56	160	256	87	7
<i>Adjusted* risk by comparison with 7 hours’ sleep</i>	1.24	1.00	1 <i>standard</i>	1.07	1.54

*Adjusted for: age, sex, marital status, employment, smoking, alcohol, physical activity, health, body mass index, blood pressure, cholesterol, illness.

Participants were British government workers based in London offices and aged 35–55 at the beginning of the study.

Source C

News report

A reduction in the time people spend asleep could partly account for soaring obesity rates, a study has revealed. The research found that people who habitually slept for five hours had 15% more ghrelin, a hormone which increases feelings of hunger, than those who slept for eight hours. Those who slept for less time were also found to have 15% less leptin, a hormone which suppresses appetite.

Another recent study found that people who slept four hours or less per night were 73% more likely to be obese.

Source D**Expert comment**

from Dr Neil Stanley, of the British Sleep Society

Not everybody needs a lot of sleep. There have been a number of people who have been notable for being short sleepers, most famously in recent times Margaret Thatcher, who was renowned for needing only four hours, and before that people like Napoleon and Hitler. None of those was particularly large. But on the other side is Winston Churchill, who famously had his two-hour nap in the afternoon, but also did not sleep very much during the evening, and cannot be said to have been a slender gentleman.

- (a) The professor in Source A claims that sleeping too little causes health problems. Suggest **two** alternative explanations for the evidence given in Source A. [4]
- (b) Is Source C an argument? Briefly justify your answer. [2]
- (c) How effectively does the comment from Dr Neil Stanley in Source D challenge the claims in Source C? Justify your answer. [3]
- (d) 'We should all sleep more, in order to live longer.'

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 Some people think that employing people to work in public relations or advertising is a waste of money, but in fact organisations of all kinds should prioritise public relations and advertising.
- 2 The most effective investment which manufacturers can make is to advertise more. Putting money into improving the quality of their product might increase sales by a very small amount, if they are lucky, but spending the same amount of money on advertising would bring far greater results. What potential customers think about a product is what matters, not how good it actually is, and what they think is influenced mainly by advertising.
- 3 When we need a plumber or an electrician or a motor mechanic or a hairdresser, we choose one we've heard of. It is highly unlikely that we know how good they are. So trying to build up a reputation by doing a good job is a waste of time and effort: they should just spend money on advertising.
- 4 Some impractical idealists might think that the top priority of national and local governments is to improve the quality of life in their nation or town. But publicity is the key to winning elections and it is therefore the first concern of all politicians. However good the intentions of a political party or individual politician, they will never achieve anything unless they are elected. Having once gained power, their main aim must be to win the next election – and then the next.
- 5 Many people think that the best way of improving public safety is to have more police officers active in the community. But public safety is a state of mind. One additional police officer may make a few people feel a little safer, but one additional public relations officer can make whole communities feel a lot safer, by publicising high conviction and low crime rates. So police forces should reduce the number of police officers and concentrate their efforts on public relations.

- (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** reasons used to support the main conclusion. [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) 'Advertising should be controlled by law.'

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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Copyright Acknowledgements:

Question 2 Source A © <http://www.bbc.co.uk/news/uk-england-coventry-warwickshire-12398114>.

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