
THINKING SKILLS

9694/23

Paper 2 Critical Thinking

October/November 2016

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**Email**

to info@mnqtransport.com

I obtained your contact email from your company's website. I thought you would want to know that at about 8.30 this morning I observed one of your drivers using a mobile phone while driving a lorry down Oxton Road towards the motorway. Quite apart from the fact that using a mobile phone while driving is illegal, he did not seem to be in full charge of the vehicle. The lorry was heavily laden and travelling significantly faster than allowed in a residential area. If anyone had stepped onto the pedestrian crossing, I am sure the driver would not have been able to stop in time.

Derek Brown

Source B**Letter**

from MNQ Transport to Mr E Chan, driver

A member of the public has reported that he saw one of our drivers using a mobile phone and driving too fast down Oxton Road at 8.30 this morning. According to our duty rosters, you were the only driver whose route could have taken him down that road at that time. The company takes illegal and dangerous driving very seriously, and you should therefore take this letter as a formal and final warning. Any repetition of such dangerous behaviour will result in summary dismissal.

Source C**Letter**

from Mr E Chan to MNQ Transport

Although I did drive down Oxton Road on the morning in question, it was at least 30 minutes later than the time your informant says he saw one of our lorries being driven dangerously. My union has advised me that a formal warning cannot be issued until after an official hearing has taken place. Furthermore, I am entitled to be accompanied by a union representative at such a hearing and to be given an opportunity to answer the accusation which has been made. Since no such hearing has been held, you must withdraw the letter.

Source D**Letter**

from Mr J Lopez to MNQ Transport

I am writing in support of my friend Mr Chan. I have worked with him for more than ten years and I believe he is a careful driver. I do not believe he would drive at an unsafe speed or while using a mobile phone.

Source E**Letter**

from MNQ Transport to Mr E Chan, driver

We are pleased to inform you that after considering all the facts in the case, the formal warning has been withdrawn and the letter concerning it has been removed from our records.

- (a) Suggest **two** pieces of further evidence which, if true, would affect the reliability of Source A, and state the effect in each case. [4]
- (b) Is Source C an argument? Briefly justify your answer. [2]
- (c) Suggest and briefly explain **two** reasons why Source D is of little use in deciding whether Mr Chan had driven dangerously down Oxton Road. [3]
- (d) How likely do you think it is that Mr Chan drove dangerously down Oxton Road? 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 medical book

The placebo effect – when patients feel better as a result of taking a medicine with no active ingredient – can be surprisingly strong. In one study, patients allegedly reported improvements even though they actually knew they were taking a dummy pill. The effect is based on the patient's expectation of a cure and the most impressive results seem to be based on subjective measures such as levels of pain. The size, colour, and branding of placebo treatments have all been shown to influence their effectiveness.

Source B

News report

Most family doctors in the UK have given a placebo to at least one of their patients, a recent survey suggests. About 1 in 10 of the doctors in the study said they had given a patient a sugar pill or an injection of salty water rather than a real medicine at some time in their career. 1 in 100 of them said they did this at least once a week. Almost all of the family doctors said they had provided patients with treatments, like vitamins, complementary medicines or medication intended for other illnesses, that were unproven for their medical condition. Three quarters of the doctors said they offered unproven treatments on a daily or weekly basis.

Source C

Letter to newspaper
in reply to Source B

The placebo effect is mostly an illusion, based on the fact that patients naturally tend to recover from illnesses. It is impossible to justify such treatments ethically, because they are based on deception. Doctors should never deliberately deceive their patients. If a doctor's first reaction is to prescribe a placebo, serious illnesses may go untreated for longer, with possibly devastating consequences for the patient. And that's before considering the cost of placebo treatments.

Source D

Research report

A professor from Harvard Medical School conducted an experiment to help patients experiencing severe pain in their arms. Half of the patients were given pain-reducing pills, while the others received acupuncture treatments. Most of the patients reported a reduction in their pain, especially those who had received acupuncture.

Significant numbers of the patients reported severe side-effects to both forms of treatment. These side-effects were exactly what patients had been warned might occur as a result of the treatment.

But this study did not prove what it appeared to prove. The pills which were given to the patients were actually made of cornstarch, and the so-called acupuncture needles were fakes, which never pierced the skin. The experiment was actually a study of the placebo effect.

Source E

Extract from website

www.InventedByAMommy.com

Inventing Obecalp®*

Jennifer Buettner's tale is the same story which millions of women before her have experienced. She enjoyed a successful job as a legal secretary, but Jen's career was joyfully interrupted by love, marriage, pregnancy and motherhood. Suddenly Jen was "mommy" to 3 beautiful children (all under the age of 14 months). Jen's energies were now diverted to the love, nurturing and promise of the future of 3 precious babies.

One day, an off-hand comment led her to the discovery of a lifetime. While discussing the over-prescribing and lack of efficacy of children's drugs, she asked, "Why, when drugs are not needed, couldn't children, adults and seniors be given a placebo by their medical authority figure instead?" Jen was amazed to learn that even though there is definitive proof of the 'placebo effect' and its wonderful benefits, no standardized, branded placebo tablets or liquid existed for sale anywhere in the world.

She knew what she had to do. After untold hours of hard work and determination, she invented Obecalp® as the first standardized, pharmaceutical grade placebo available for sale in retail stores and via the internet. The response has been spectacular.

*Obecalp is the word "placebo" spelled backwards.

- (a) How well does the evidence in Source B support its claim that "Most family doctors have given a placebo to at least one of their patients"? [3]
- (b) The manufacturers of Obecalp® recommend it particularly for use with children. Suggest and briefly explain **two** reasons why a placebo might be more useful for children than adults. [4]
- (c) The author of Source C claims that placebos are based on deception. Identify one point from the sources which is **inconsistent** with this claim, and briefly explain why it is inconsistent. [2]
- (d) 'Doctors should not prescribe treatments which have no active ingredients.'

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–E. [6]

3 Read the passage and answer the questions below.

- 1 Humanity has evolved to its present state of advanced civilization by a process of 'natural selection', whereby only the finest members of the species have succeeded in passing on their genes. Life is a form of war, in which those who have the most inventive minds and the strongest and most agile bodies defeat their competitors in order to thrive and to reproduce. Thus war has been an essential element in evolutionary progress.
- 2 One of the justifications for space exploration is that it has led to the development of materials and equipment which have become very significant in everyday life. War, similarly, brings about major progress in science and technology. Radar, computers, satellites and even the internet were originally developed for military purposes, but we would find it hard to be without them now.
- 3 Wars bring many economic benefits to the countries which are involved in them. Recruitment into the armed services solves problems of unemployment, while factories no longer stand idle when supplies of tanks, planes, guns and ammunition are urgently required. After the war, the work of reconstruction employs many people.
- 4 Surprising though it may seem, there are moral benefits to war. It is the context in which the most admirable human qualities, such as courage, endurance and self-sacrifice, are developed and displayed. Our greatest poets, such as Homer, have celebrated heroic deeds in times of war, while generations which have never known war become lazy and self-indulgent.
- 5 Politicians say they are trying to make peace, and religious people pray for peace, but instead they should be working and praying for war. Peace-mongers are cowards. The only reason for their opposition to war is that they lack the courage to stand against tyranny and injustice.

- (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) 'The most important duty of any government is to live at peace with other countries.'

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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