



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education
Advanced Subsidiary Level and Advanced Level

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THINKING SKILLS

9694/21

Paper 2 Critical Thinking

May/June 2011

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, highlighters, 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.

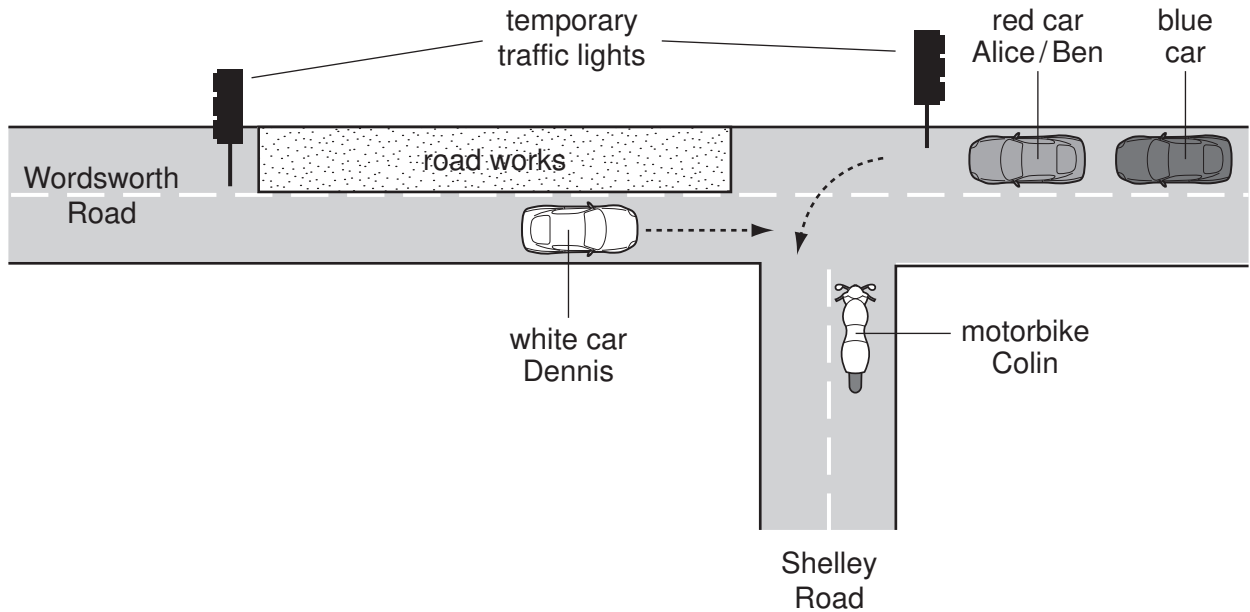
The number of marks is given in brackets [] at the end of each question.

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



1 Study the evidence and answer the questions that follow.

A road accident occurred at the junction of Wordsworth Road and Shelley Road (see diagram). A white car hit a red car. Because roadworks were taking place on Wordsworth Road, traffic on Wordsworth Road was reduced to one lane, controlled by temporary traffic lights.



Source A

Statement

by Alice, the driver of the red car

I waited at the temporary traffic lights on Wordsworth Road in order to turn left into Shelley Road as soon as they changed to green. A blue car was waiting immediately behind me. As soon as a line of three cars had made their way through the road works, I checked that there was no more traffic coming towards me and then turned left, but a white car appeared out of nowhere and hit the side of my car. I am sure I would not have moved off until the traffic lights showed green.

Source B

Statement

by Ben, passenger in the red car

The accident occurred when my mother was driving me to school. I was not watching the traffic lights, because I was deep in conversation with my mother, but I am sure it showed green when she moved off. I did not see the white car until a split second before it hit us.

Source C

Statement

by Colin, rider of the motor-cycle

I waited at the end of Shelley Road, intending to turn left into Wordsworth Road as soon as the lights had changed and both the red car and the blue car had gone. I could not see the temporary traffic lights from my position. I did not see the white car until a moment before it hit the red car, but I don't think it could have been speeding, because it would have been impossible to drive fast through the roadworks. I do not know either of the drivers.

Source D**Statement**

by Dennis, the driver of the white car

As I approached the roadworks, the temporary traffic lights showed green. So I did not need to stop. I noticed the lights turn to red as I passed them. As I came out of the roadworks, a red car suddenly turned in front of me. Although I was travelling quite slowly, it was impossible to avoid a collision. A motorcyclist who had witnessed the accident immediately offered to give evidence on my behalf, because he thought the driver of the other vehicle was at fault.

Source E**Letter from Alice's insurer**

We have agreed with the insurer of the other driver to treat both drivers as equally responsible for the accident. Each company will bear the cost of the repairs to their client's vehicle. Both drivers will have to pay more for their insurance in future.

- (a) If the driver of the blue car can be found, how significant will his/her evidence be? [3]
- (b) Whose evidence is more reliable, Ben's (Source B) or Colin's (Source C)? Explain your answer. [3]
- (c) How useful is the letter from the insurance company (Source E) in deciding who was responsible for the accident? Explain your answer. [3]
- (d) Who do you think was responsible for the accident at the junction of Shelley Road and Wordsworth Road? Write a short, reasoned argument to support your conclusion, with critical reference to the evidence provided and considering plausible alternative scenarios. [6]

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

Source A

Homoeopathy is a form of alternative medicine which treats patients with medicines which are prepared by repeatedly diluting a substance until only a very small amount – if any – of the original substance remains. Supporters of homoeopathy claim that after this repeated dilution the water retains a ‘memory’ of the substance. Critics argue that homoeopathy should not be accepted as a valid medical treatment because the theory fails to meet scientific criteria.

Source B

Extracts from online chatroom

Dr Asif

As a doctor for more than forty years and a homoeopath for the last twenty, I know that homoeopathy is a most valuable tool and nine times out of ten my treatment of choice. One only has to see its dramatic effect in treatment of fevers, depression, anxiety, pain, to become a convert. It does work! Furthermore, no homoeopathic remedy has ever been withdrawn or banned because it was dangerous.

Dr Branchflower

The danger with homoeopathic treatments is not that anyone will fall ill from taking them – since they basically only contain water or sugar, that is highly unlikely. They are dangerous because people may take them for serious illness instead of a proven treatment, and may die or suffer as a result.

Mrs Courtney

My daughter was diagnosed with a thyroid complaint that would have meant a lifetime on medicine, with all sorts of possible side-effects and at goodness knows what expense. This medicine would never have been a cure – it would just have made her less ill. After 6 months of homoeopathic treatment, her blood tests were completely normal and she was bouncing around like she never had before. Hers is not an isolated case, and certainly not due to the placebo* effect, since she was dragged most unwillingly to see the homoeopath, and proclaimed that she didn't believe in any of it!

Dr Branchflower

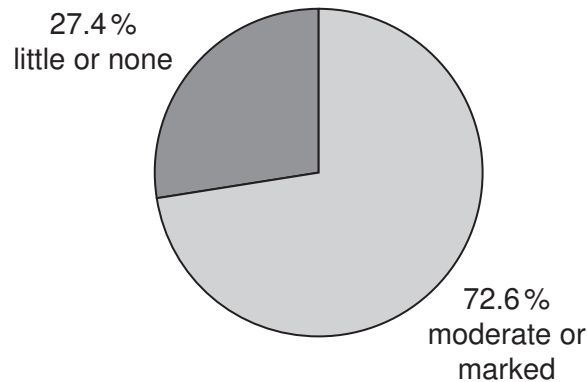
Unfortunately you don't say what the condition was, nor who made the diagnosis, nor what other medication was being taken, nor what other medical conditions had been diagnosed... and a whole host of other important complicating factors. Not all thyroid ‘complaints’ require lifetime treatments. Many illnesses eventually come to a natural end without being treated, and this was probably one of them. It is certain that the homoeopathic treatment did absolutely nothing, since it contained no active medical ingredient.

* The placebo effect refers to the fact that medical conditions sometimes improve because patients believe they are receiving an effective treatment, even if they are not.

Source C**Some data on Homoeopathy**

From pro-homoeopathic web pages

- In France, homoeopathic medicine is the most popular treatment for colds and flu.
- In Germany, some of the most popular remedies for hayfever, colds, sore throats and circulatory problems are homoeopathic.
- In the early 1980s a survey revealed that 80% of newly-qualified doctors in the UK were interested in training in homoeopathy, hypnosis, or acupuncture.
- The chart below shows how 593 patients responded to the question, "Have you seen any improvement in your general health in the year following your homoeopathic treatment?"

**Source D**

Doctors have warned that tourists are risking their lives by relying on homoeopathy to protect them against malaria. This warning follows an undercover investigation which revealed that alternative medicine clinics willingly sell travellers homoeopathic protection against malaria despite official advice that there is no evidence that these treatments work. It also comes after a study published in a medical journal claimed that, in some clinical trials, homoeopathic remedies performed no better than sugar pills.

- (a) 'Homoeopathy should be used for all patients.' Can this be reliably concluded from Dr Asif's statement (Source B)? Explain your answer. [3]
- (b) How effectively does Dr Branchflower reply to Mrs Courtney's claims (Source B)? Explain your answer. [3]
- (c) According to Source D, recent scientific research has suggested that homoeopathy is ineffective as a medical treatment. Can we reliably conclude that people will cease to use homoeopathic treatment as a result of this research? [3]
- (d) Should homoeopathy be recognised as a valid form of medical treatment? 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 Almost everyone admires people who consistently behave unselfishly, putting the well-being of others before their own. This admiration is, however, misplaced, because there is actually no such thing as unselfishness.
- 2 Since acting for the benefit of others does not contribute to the survival of the individual, those who behave unselfishly are disadvantaged in the struggle of life and fail to pass on their genes, with the result that the trait of unselfishness inevitably disappears. Beginning from this conviction, philosophers and evolutionary psychologists have argued that even those actions which appear to be unselfish must really be selfishness in disguise.
- 3 Many of the people who behave in apparently unselfish ways are motivated by religion. Most religions teach that unselfish acts will be rewarded in an after-life, either by enjoying bliss in heaven or by being reincarnated into a superior mode of being. But the simple fact that people expect to be rewarded for their actions means that those actions are not unselfish at all, since they are acting for what they believe to be their own long-term benefit.
- 4 People who are not motivated by religion are also acting selfishly, even when they seem to be putting the needs of other people before their own. They are doing it because they enjoy being thanked and praised for their generosity. It is pleasant to be well regarded by others and to know that they are grateful. There can also be practical benefits in behaving generously towards others, because a situation may arise in the future when the favour can be repaid.
- 5 An obvious objection to this argument is that some people act in secret, but even anonymous actions are actually motivated by self-interest. The reward in such cases lies not in other people's expressions of gratitude but in our own inner sense of self-satisfaction at having done the right thing.

- (a) Using the exact words from the passage as far as possible, identify the main conclusion. [2]
- (b) "...there is actually no such thing as unselfishness."
Using the exact words from the passage as far as possible, identify **three** reasons used to support this claim. [3]
- (c) Evaluate the reasoning in the argument. In your answer you should consider any strengths, weaknesses, flaws and unstated assumptions. [5]
- (d) 'Selfishness is the best policy.'
Write your own short argument to support **or** challenge this claim. [5]

