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**THINKING SKILLS**

**9694/22**

Paper 2 Critical Thinking

**October/November 2014**

**1 hour 45 minutes**

Additional Materials: Answer Booklet/Paper

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**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.

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

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

**Source A****Report**

*from Daily Echo*  
30 March 2009

A serious incident took place last Thursday in the sea off Budmouth. A canoeing party set out from Budmouth at 10am. The party of eight schoolchildren and their teacher were accompanied by two instructors from the Budmouth Sea Adventure Centre. Almost as soon as the trip began, the teacher experienced difficulties. One of the instructors attended to him immediately. The other one tied the pupils' canoes together and went to help with the situation involving the teacher.

In the meantime, an offshore wind blew the pupils' canoes out to sea. The increased wave height meant the canoes were swamped and several of the children ended up in the water. A helicopter succeeded in rescuing the schoolchildren but three of them are in intensive care with severe hypothermia. The pupils were wearing life jackets but no flares were carried. Also, the rescue services were not alerted until 2pm, in spite of the fact that the party was due back at 12 noon.

**Source B****Letter**

*from senior instructor at Budmouth Sea Adventure Centre to senior management*  
15 January 2009

I am concerned that safety standards at the centre are inadequate. Children do not have sufficient training before they go out to sea in the canoes. Whilst they are wearing wetsuits and lifejackets, the former are of basic quality and the latter will not cope with rough seas. Unless you take steps to rectify this situation I fear there will be a major incident. It is significant that two members of the instructing staff have resigned recently.

**Source C****Extract**

*from publicity leaflet from Budmouth Sea Adventure Centre*

Give your children the holiday of a lifetime! Trained instructors will take them out along the coast in purpose-built canoes. They will be equipped with lifejackets and wetsuits. They will enjoy a challenging experience in what is, ultimately, a safe environment.

**Source D****Statement**

*by canoeing expert*

Nobody should attempt to go out to sea in a canoe without at least 30 hours experience in a freshwater environment such as a lake. The sea is unpredictable. Waves can suddenly increase in height and offshore winds can blow one out to sea. Currents can vary markedly with the state of the tide, which can only be assessed with expert local knowledge. The sea is a dangerous environment, even for the experienced sea canoeist – sea canoeing needs to be compared with mountain climbing in terms of the level of risk.

**Source E****Statement**

*by a member of the helicopter rescue crew*

The children were in a highly distressed state and some were dangerously hypothermic. The sea temperature would have been about 7 degrees centigrade. The tide was going out and there was an offshore wind of force 3–4 which had been blowing for several days.

- (a) What is the significance of the evidence in Source A that the rescue services were not alerted until 2 hours after the party was due back? [3]
- (b) How useful is the evidence given in Source B in judging responsibility for the canoeing incident? [3]
- (c) How relevant is the evidence in Source E in coming to a judgment about responsibility for the incident? [3]
- (d) Should the Budmouth Sea Adventure Centre be held responsible for the sea-canoeing incident? 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**

**Account of research project**

A study of 37 000 Swedish men, published in 2011, suggested that eating chocolate significantly reduced their risk of heart attack and stroke. The men's health was monitored for a decade. Men who ate 63g of chocolate a week (a small chocolate bar) were 17% less likely to have a stroke than those who ate little or no chocolate. This effect was independent of any lifestyle differences. The reason for the health benefits of chocolate are probably related to the flavanoids that chocolate contains. It is known that flavanoids have a beneficial effect in combating conditions associated with cardiovascular disease such as high cholesterol and high blood pressure.

**Source B**

**Advert**



A peanut, toffee and honey mixture generously covered in the best quality chocolate. Scientists have shown chocolate is good for you so eating a Whizzo! will benefit your health!

**Source C**

**Statement**

*by a health professional*

From a nutritional perspective, the average chocolate product is no less a junk food than ice cream or doughnuts, and it is equally unhealthy and fattening when large amounts are consumed on a regular basis.

Selling chocolate on the basis of providing health benefits is deceitful when diabetes and obesity as a result of over-consumption of junk food have become out-of-control global problems.

**Source D**

**Extract**

*from newspaper article*

There have been claims for some years that chocolate is addictive. There is some scientific basis for this, as research suggests chocolate contains alkaloids, which are also found in other addictive substances. It is these alkaloids that cause the changes in brain chemistry that are at the root of something becoming addictive. Chocolate also contains caffeine; this too can produce a dependency on regular intake, as illustrated in people who drink excessive amounts of coffee.

**Source E****Extract**

*from magazine article*

In studies that examine the link between food taste and gender, women tend to prefer sweet–fat combinations, like sweets, ice cream and especially chocolate, while men prefer salty and fatty things, like pizza, chips and burgers. Research looking at men’s and women’s ‘comfort food’ preferences shows similar findings. Both men and women use food as a security blanket to deal with stress and worry, but the food they turn to differs significantly.

- (a) ‘The sample used in the research in Source A is not sufficiently representative to allow its conclusion about the beneficial effects of chocolate to be drawn.’ Is this a valid criticism? [3]
- (b) If “chocolate is good for you”, can you reliably conclude that “eating a Whizzo! will benefit your health”? (Source B) [3]
- (c) Does the information about comfort food in Source E challenge the conclusion about the health benefits of chocolate in Source A? Justify your answer. [3]
- (d) “Chocolate is good for you.”

How justified is this statement? 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 Many people see the electric car as a viable replacement for the fossil-fuelled version. They argue it is non-polluting and does not use up a valuable resource. However, this is not the solution to the problem of the car that many hope for. The electric car will prove a disappointment to those who think it is.
- 2 Electric cars have a very short range. One has to re-charge them every 200 miles or so. This means that they are of no use on a long journey. Travelling in an electric car is a bit like returning to the early days of motoring, when trying to find a fuel station was a frequent source of anxiety.
- 3 Whilst they do not burn fossil fuel directly, they still rely on electricity being produced in order to charge the battery. This simply puts the consumption of fossil fuel back a stage. The extra electricity that has to be produced to run cars will still contribute to pollution and global warming. So an age of the electric car would not see any major reduction in pollution of the atmosphere.
- 4 Electric cars make very little noise. This poses a new danger to other road users, such as pedestrians and cyclists. Whilst one could artificially create a noise, this would seem foolish as a quiet car would clearly be of great advantage in combating urban noise pollution. So one has either a noisy and safe electric car or a silent and deadly one.
- 5 The electric car makes no contribution to the problem of urban congestion. A traffic jam of electric cars is just the same as a traffic jam of fossil-fuelled cars. We need to get out of the car habit altogether and use public transport much more.

(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) 'It would be better if cars did not exist.'

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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