

# X118/701

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NATIONAL  
QUALIFICATIONS  
2009

TUESDAY, 9 JUNE  
1.00 PM – 3.20 PM

HOME ECONOMICS  
HEALTH AND FOOD  
TECHNOLOGY  
ADVANCED HIGHER

75 marks are allocated to this paper.

This paper consists of **two** sections.

Candidates should answer the following:

**Section A** — All questions

**Section B** — Question 1 and any **one** other question



## SECTION A

*You should spend approximately 1 hour in total on this section.*

**Read the report carefully.**

**Using the information in the report and your own knowledge, answer the questions below.**

	<i>Marks</i>
(a) Outline the main issues of the report.	<b>5</b>
(b) Discuss the use of additives in the manufacture of food products.	<b>10</b>
(c) Critically discuss irradiation as an alternative means of food preservation.	<b>10</b>
	<b>(25)</b>

## SECTION B

**Answer TWO questions from this section: Question 1 and any ONE other question.**

*You should spend approximately 40 minutes on each question.*

*Marks*

- |        |   |             |
|--------|---|-------------|
| 1. (a) | Discuss the ways in which the Scottish dietary targets could contribute to a reduction in obesity.  | 10          |
| (b)    | Critically discuss the factors which have contributed to the increased levels of obesity in Scotland.   | 15          |
|        |   | <b>(25)</b> |
| 2.     | Discuss the role of micro nutrients in a teenager's diet.   | <b>(25)</b> |
| 3.     | Discuss the composition and properties of meat and fish which should be considered by a food manufacturer when developing a new product.                | <b>(25)</b> |
| 4.     | Discuss the techniques used by food manufacturers to persuade consumers to buy their products.  | <b>(25)</b> |
| 5.     | Control and prevention of food contamination is a key concern throughout the food chain.<br>Discuss this statement with reference to specific bacteria. | <b>(25)</b> |

*[END OF QUESTION PAPER]*

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HOME ECONOMICS  
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Report

**REPORT**

**For use with SECTION A**

Read the following report carefully and then answer the questions in SECTION A of the accompanying question paper.

You should spend approximately 1 hour in total on Section A.



## *Additives—To Add Or Not To Add?*

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Food companies have started to respond to the demand for healthy eating from consumers and are now producing a substantial range of additive-free food. One in four food products introduced in 2006 claimed to be “additive and preservative free”. This claim has now overtaken “low fat” as the new health mantra. Figures from a new products database for consumer analysts Mintel show that in 2006 just 800 new items claiming to be additive-free reached the supermarket shelves, yet from June to September in 2007 there were 1,000 new items on the shelves and the trend is expected to continue.

David Jago, Mintel spokesman, said: “Manufacturers are tapping into the nation’s growing desire for a more natural lifestyle, as consumers take greater interest in what really goes into their food.”

Research commissioned by the Food Standards Agency (FSA) has shown the harmful effects of taking a mixture of artificial extras which are added to drinks, sweets and processed foods. As a result, the FSA has advised parents to cut out foods containing the identified E numbers if their children are hyperactive.

Food campaigners believe the FSA should have banned these additives outright from food produced in Britain and have urged parents to remove products which contain these from their children’s diet. They are also concerned about how children can avoid these additives when many confectionery items are sold loose, without any ingredient information on labels.

Where foods are labelled, food campaigners claim that manufacturers hoodwink shoppers over the amount of additives they put in food and drink products with a confusing array of information. They claim that lists of ingredients on some labels resemble “a chemistry experiment rather than something you would want to eat”.

The Consumers’ Association is demanding new rules to ensure that all additives used in foods—sweeteners, colouring, flavouring and thickeners—are clearly marked. It is concerned that people who try to avoid certain additives, usually for health reasons, find it impossible to spot them. According to the association, some people search for the E number they wish to avoid, such as E211, only to read on the label “sodium benzoate”, which is the same thing but which they do not recognise.

An investigation in the consumer magazine “Which?” found that hundreds of additives are approved for use in a range of popular foods. Their uses include achieving brighter colours and making products safer, tastier, juicier, smoother, sweeter or longer-lasting.

The association believes that it is important to have clearer labels so that consumers can properly compare food products. The “Which?” investigation concludes: “There are still health concerns about certain additives and our survey shows that it is all too easy to consume them unwittingly. We would like to see one clear labelling system for additives.”

The Consumers’ Association accepts that additives are essential to provide safe, convenient food all year round, but it challenges the need for additives just to make food more colourful, to replace “real” ingredients or to make junk food seem more healthy and appealing.

Martin Paterson, deputy director-general of the Food and Drink Federation, which represents food companies and processors, said that the use of additives was subject to strict safety controls and that manufacturers often had to convey a lot of information on a very small label. Sometimes it was easier to use simple descriptions with numbers rather than complex names. “Additive labelling is governed by the EU labelling directive. However, British manufacturers are always looking at the best way to provide product information within these constraints. Further information is often provided via leaflets, customer care lines and websites.”

Thanks to research showing the link between hyperactivity and additives, shoppers are being encouraged to contemplate a future without food additives. Such a future could lead to frozen and canned food becoming fashionable again, and to the disappearance of some products from supermarket shelves.

“If we got rid of preservatives, we might not have the same range of products on the supermarket shelf,” says Christine Welberry, from the Food and Drink Federation, “It might not be viable to manufacture a product and put it in the shops if it only has a few days before it goes off. Shelf life is a consumer convenience, as well as being part and parcel of the food chain.”

Even the Soil Association (SA), despite its purist approach to food, believes it is unnecessary to ban all additives. It currently permits 32 out of about 300 legal additives for use in organic food. The key difference is it emphasises the use of natural rather than synthetic additives. Parents echo this concern about man-made chemicals in their children’s food, with most preferring that artificial additives are either removed or replaced with natural alternatives.

Losing colourings, especially if there are natural replacements might not be such a major issue but losing preservatives is a bigger challenge. The loss of preservatives, as opposed to colourings, would make life very difficult for the consumer. Research has shown that consumers really value convenience, and are reluctant to give it up.

Therein lies the mismatch: although we want to eat fresh food, we still only want to do one weekly shop. Leaving the big question to be answered: additives—to add or not to add?

Adapted from  
*Food producers respond to consumer pressure with “additive-free” tags* by Valerie Elliott,  
*Times Online, September 19, 2007*  
*Labels for additives “hoodwink” confused shoppers* by Valerie Elliott, *Times Online*,  
*February 5, 2004*  
*Subtracting additives* by Anjana Ahuja, *Times Online, September 17, 2007*

[END OF REPORT]

## ACKNOWLEDGEMENTS

Article is adapted from “Food producers respond to consumer pressure with “additive-free” tags” by Valerie Elliot, 19 September 2007; “Labels for additives “hoodwink” confused shoppers” by Valerie Elliot, 5 February 2004; and *Subtracting additives* by Anjana Ahuja, 17 September 2007, from *The Times*. © The Times Sep 2007 & Feb 2004.