

# X118/12/01

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NATIONAL  
QUALIFICATIONS  
2014

FRIDAY, 2 MAY  
1.00 PM – 3.00 PM

HOME ECONOMICS  
HEALTH AND FOOD  
TECHNOLOGY  
HIGHER

80 marks are allocated to this paper.

This paper consists of **two** sections.

Candidates should attempt the following:

**Section A**—All questions

**Section B**—Question 1 and any other **two** questions.

The breakdown of Knowledge and Understanding (**KU**) and Evaluation (**EV**) marks are indicated beside each question.



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## SECTION A

**Attempt ALL questions.**

*You should spend approximately 30 minutes on this part of the paper.*

*Marks*

- |   |             |
|---|-------------|
| 1. State <b>one</b> source of vitamin D.  | 1           |
| 2. Identify <b>one</b> symptom of food poisoning.                                   | 1           |
| 3. Give <b>one</b> benefit of water in the diet.                                    | 1           |
| 4. Identify <b>one</b> benefit of Fair Trade foods.                                 | 1           |
| 5. State <b>one</b> source of bacillus cereus.                                      | 1           |
| 6. What does the abbreviation <b>CHD</b> stand for?                                 | 1           |
| 7. Explain the term “due diligence” in relation to the food industry.               | 1           |
| 8. Identify the process by which liquid oils are converted to solid fats.           | 1           |
| 9. Give <b>two</b> ways food manufacturers have replaced sugar in food products.    | 2           |
| 10. State <b>two</b> procedures to ensure effective sensory testing.                | 2           |
| 11. State <b>two</b> responsibilities of the Environmental Health Department (EHD). | 2           |
| 12. Give <b>two</b> effects of dehydration on food.                                 | 2           |
| 13. Explain <b>two</b> benefits of market research.                                 | 2           |
| 14. Give <b>one</b> advantage and <b>one</b> disadvantage of cook-chill products.   | 2           |
|   | <b>(20)</b> |

**[Turn over**

## SECTION B

Attempt **THREE** questions from this section: **Question 1** and any other **TWO** questions.

*You should spend approximately 30 minutes on each question.*

*Marks*

1. (a) The table opposite shows a day's nutrient content of meals eaten by an overweight 8 year old boy.  
Using your knowledge of nutrition, and the information provided, evaluate the suitability of this day's nutritional intake. **6 EV**
- (b) Explain the effects of heat on **each** of the following.
- (i) Vitamin C
  - (ii) Starch **4 KU**
- (c) Evaluate the contribution of non starch polysaccharides (NSP) in the diet. **4 EV**
- (d) Identify and explain **three** dietary factors which may contribute to hypertension. **6 KU**
- (20)**

**1. (a) (continued)**

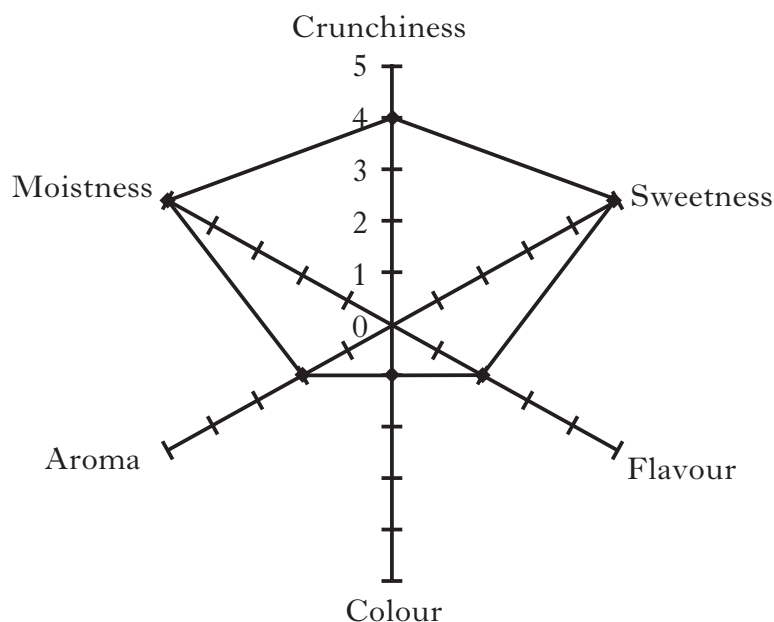
<i>Nutrient content of a day's meals eaten by an overweight 8 year old male</i>							
<i>Energy</i>		<i>Protein</i> (g)	<i>Vitamin B1</i> (mg)	<i>Phosphorous</i> (mg)	<i>Vitamin A</i> (µg)	<i>Saturated fat</i> %	<i>Iron</i> (mg)
(MJ)	(kcal)						
9.26	2211	32.0	0.6	500	398	19	6.2

<i>Reference Nutrient Intake for Selected Nutrients in the UK (per day) for males aged 7–10 years</i>				
<i>Protein</i> (g)	<i>Vitamin B1</i> (mg)	<i>Phosphorous</i> (mg)	<i>Vitamin A</i> (µg)	<i>Iron</i> (mg)
28.3	0.7	450	500	8.7

<i>Estimated Average Requirement for Energy in the UK (per day) for males aged 7–10 years</i>	
<i>Energy</i>	
MJ	kcal
8.24	1970

**[Turn over**

2. (a) Identify and explain **three** stages in the development of a celebration cupcake. 6 KU
- (b) The star profile shows the results of testing a celebration cupcake. Evaluate the suitability of this celebration cupcake for toddlers. 5 EV



- (c) Explain how **each** of the following may influence consumer choice of food.
- (i) Available income 2 KU
  - (ii) Nutritional knowledge 2 KU
- (d) Evaluate the usefulness to the consumer of the following information found on a food label.
- (i) Bar code
  - (ii) Recycling
  - (iii) Date mark 3 EV
- (e) Explain the protection offered to consumers by the Consumer Protection from Unfair Trading Regulations 2008 (CPRs). 2 KU
- (20)**

3. (a) Evaluate the nutritional suitability of the following meal for an athlete.
- Beef chilli
  - Baked potato
  - Rhubarb crumble and custard
- 4 EV
- (b) Explain the use of disassembly in food manufacture. 4 KU
- (c) Using Hazard Analysis Critical Control Point (HACCP) explain **one** control measure for **each** of the following stages below in the production of a prawn mayonnaise sandwich.
- (i) Delivery of ingredients
  - (ii) Storage of ingredients
  - (iii) Preparation of ingredients
  - (iv) Packaging
- 4 KU
- (d) Evaluate online shopping as a method of purchasing food. 4 EV
- (e) Explain how **each** of the following ingredients used in baking affect the finished product.
- (i) Sugar
  - (ii) Liquid
- 4 KU
- (20)

[Turn over for Question 4 on *Page eight*

	<i>Marks</i>
4. (a) Explain <b>four</b> benefits of breastfeeding.	<b>4 KU</b>
(b) Evaluate <b>each</b> of the following foods to the consumer.	
(i) Organic foods	
(ii) Genetically modified foods (GM)	<b>4 EV</b>
(c) Identify and explain <b>three</b> functional properties of eggs.	<b>6 KU</b>
(d) Evaluate <b>each</b> of the following technological developments to the consumer.	
(i) Fat replacers	
(ii) Functional foods	<b>4 EV</b>
(e) Explain the protection offered to the consumer by the Sale and Supply of Goods Act 1994.	<b>2 KU</b>
	<b>(20)</b>

*[END OF QUESTION PAPER]*