

X118/301

NATIONAL
QUALIFICATIONS
2011

MONDAY, 16 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. Identify one symptom of food poisoning. | 1 |
| 2. Name one water soluble vitamin. | 1 |
| 3. Identify one source of vitamin D. | 1 |
| 4. State one function of essential fatty acids. | 1 |
| 5. Give one benefit to a food manufacturer of market research. | 1 |
| 6. State one effect of storage on vitamin C. | 1 |
| 7. What does the abbreviation UHT stand for? | 1 |
| 8. Identify one stage in food production where Hazard Analysis Critical Control Point (HACCP) is used. | 1 |
| 9. Give two benefits of Fair Trade food. | 2 |
| 10. State two practical ways of increasing total complex carbohydrate in the diet. | 2 |
| 11. Give two ways that European Directives have influenced food labelling. | 2 |
| 12. Identify two areas covered by 'Hungry for Success' in schools. | 2 |
| 13. Give two responsibilities of the Food Standards Agency (FSA). | 2 |
| 14. Give one advantage and one disadvantage of modified atmosphere packaging (MAP). | 2 |
| | (20) |

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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 and NSP content of meals eaten by an 80 year old male.

Using your knowledge of nutrition, and the information provided, evaluate the suitability of this day's nutritional intake.

6 EV

- (b) Explain the effect of heat on **each** of the following.

(i) Protein

(ii) Carbohydrates

4 KU

- (c) Evaluate the contribution of fruit and vegetables in the diet.

4 EV

- (d) Identify and explain **three** dietary factors which may contribute to dental caries.

6 KU

(20)

1. (a) (continued)

<i>Nutrient and NSP content of a day's meals eaten by an 80 year old male</i>							
<i>Energy</i>		<i>Protein</i> (g)	<i>Sodium</i> (mg)	<i>Vitamin A</i> (µg)	<i>Vitamin B1</i> (mg)	<i>Iron</i> (mg)	<i>NSP</i> (g)
(MJ)	(kcal)						
7.01	1680	65	2000	600	1.1	4	10

<i>Reference Nutrient Intake for Selected Nutrients in the UK (per day) for males 50+ years</i>				
<i>Protein</i> (g)	<i>Sodium</i> (mg)	<i>Vitamin A</i> (µg)	<i>Vitamin B1</i> (mg)	<i>Iron</i> (mg)
53.3	1600	700	0.9	8.7

<i>Estimated Average Requirement for Energy in the UK (per day) for males 75+ years</i>		
<i>Energy</i>		<i>NSP</i>
MJ	kcal	(g)
8.77	2100	18

[Turn over

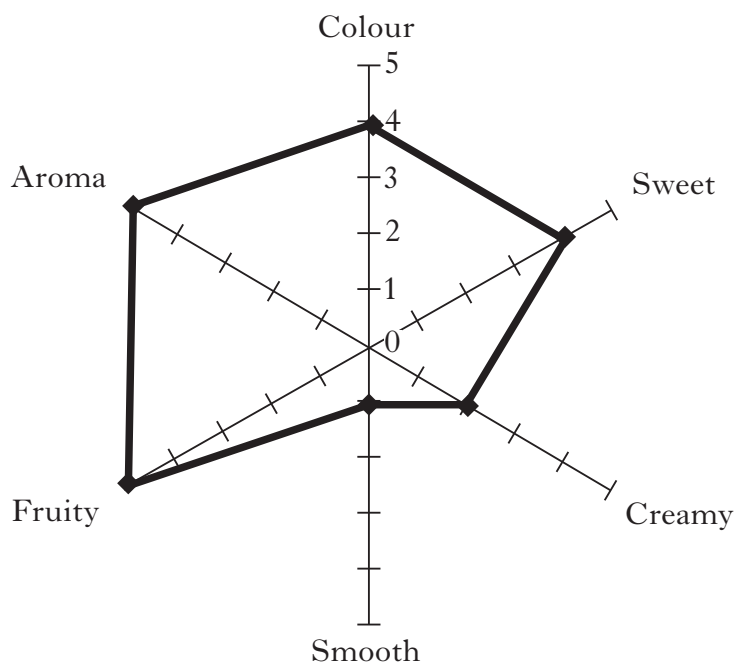
2. (a) Identify and explain **three** stages in the development of a fruit smoothie.

6 KU

(b) The star profile shows the results of testing the fruit smoothie.

Evaluate the suitability of this fruit smoothie for young children.

4 EV



(c) Explain how **each** of the following may influence food choice.

(i) Religion

(ii) Peer pressure

(iii) Range of retail outlets selling foods

(iv) Shift patterns

4 KU

(d) Evaluate **each** of the following technological developments to the consumer.

(i) Freezing

(ii) Functional foods

4 EV

(e) Explain **two** ways in which food manufacturers are helping consumers to reduce sodium intake.

2 KU

(20)

3. (a) Evaluate the nutritional suitability of the following meal during pregnancy.
- Beef and broccoli
 - Brown rice
 - Jam sponge pudding
 - Custard
- 4 EV
- (b) Identify and explain **three** control measures which may prevent contamination by E-coli.
- 6 KU
- (c) Evaluate how food labelling can help the consumer make informed choices.
- 4 EV
- (d) Explain the function of **each** of the following ingredients in baked products.
- (i) Fat
 - (ii) Flour
 - (iii) Liquid
- 3 KU
- (e) Explain **three** responsibilities of the Environmental Health Department (EHD).
- 3 KU
- (20)

[Turn over for Question 4 on *Page eight*

4. (a) Identify and explain **three** procedures that should be followed when carrying out sensory testing. **6 KU**
- (b) Evaluate the use of **each** of the following to the consumer.
- (i) Emulsifiers
 - (ii) Sweeteners **4 EV**
- (c) Identify and explain **two** dietary factors which may contribute to obesity. **4 KU**
- (d) Explain **three** ways in which the Sale and Supply of Goods Act 1994 protects the consumer. **3 KU**
- (e) Evaluate the impact of **each** of the following promotional techniques on consumer choice of food.
- (i) Buy one get one free offers
 - (ii) Free gifts
 - (iii) In-store tasting **3 EV**
- (20)**

[END OF QUESTION PAPER]