



National  
Qualifications  
2017

**X736/76/11**

**Health and Food  
Technology**

WEDNESDAY, 24 MAY

1:00 PM – 2:30 PM

**Total marks — 50**

Attempt ALL questions.

Write your answers clearly in the answer booklet provided. In the answer booklet, you must clearly identify the question number you are attempting.

Use **blue** or **black** ink.

Before leaving the examination room you must give your answer booklet to the Invigilator; if you do not, you may lose all the marks for this paper.



\* X 7 3 6 7 6 1 1 \*

Total marks — 50  
Attempt ALL questions

## Question 1

- (a) Explain how a diet high in complex carbohydrates can reduce the risk of coronary heart disease. 2
- (b) Evaluate the suitability of cook-chill foods for a single person. 3
- (c) A 35 year old man is training for a marathon.

Table 1 shows the Dietary Reference Values for 19–50 year old males.

Dietary Reference Values for 19–50 year old males				
Estimated average requirements	Reference Nutrient Intakes			
Energy (kcal)	Protein (g)	Vitamin B2 (mg)	Vitamin C (mg)	Iron (mg)
2550	55	1.3	40	8.7

The food intake of the 35 year old man includes the following lunch.

Wholemeal pasta with tomato and basil sauce
Milk
Salt and vinegar crisps

Table 2 shows the dietary analysis of food intake, including the lunch.

Dietary analysis of the 35 year old male's food intake				
Estimated average requirements	Reference Nutrient Intakes			
Energy (kcal)	Protein (g)	Vitamin B2 (mg)	Vitamin C (mg)	Iron (mg)
2850	47	2.5	20	6.0

Question 1 (c) (continued)

Analyse **three different** aspects of the man’s diet, in relation to the Dietary Reference Values (DRVs) for 19–50 year old males.

For each aspect you should include:

- a comment on the impact of his diet in relation to the Dietary Reference Values
- a potential consequence for his health
- a conclusion about the contribution made by his lunch choice to his food intake.

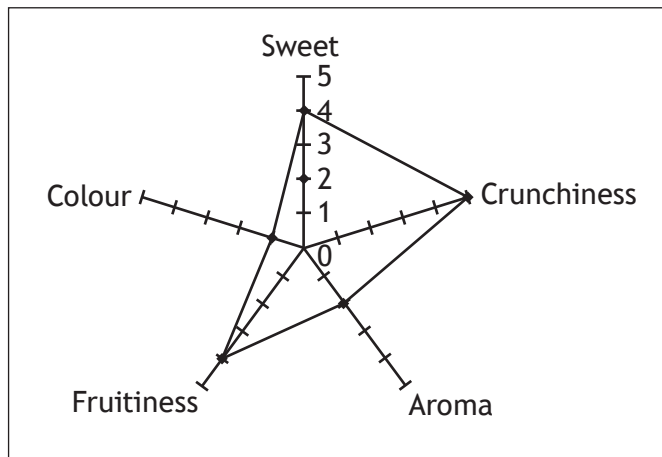
9

(d) A food manufacturer is developing a cereal bar for athletes.

The star profile below shows the results of sensory testing of a prototype of the cereal bar.

Evaluate the suitability of this cereal bar for an athlete.

4



Key: 5 = very high  
 4 = high  
 3 = slightly high  
 2 = low  
 1 = very low

(e) Explain **two** factors which may increase the risk of bowel disease.

2

## Question 2

- |  |   |
|--|---|
| (a) Evaluate the impact of using organic ingredients in a cafe.                              | 4 |
| (b) Explain how cross-contamination could be prevented when producing salads in the cafe.    | 3 |
| (c) Evaluate each of the following techniques used for promoting new menu items in the cafe: |   |
| (i) Introductory low prices  |   |
| (ii) Free sampling of foods.   | 3 |

## Question 3

- (a) Explain factors which could influence a teenager's choice of food. 3
- (b) Evaluate ways this meal could help a teenager to follow **different** pieces of current dietary advice:
- Beef burger with a wholemeal bun
- Seasoned chunky chips
- Cranberry juice. 5
- (c) Explain the interrelationship between:
- Calcium, Phosphorus and Vitamin D. 2

[Turn over for next question

## Question 4

- (a) Evaluate each of the following technological developments when choosing food for a breakfast club:
- (i) Food additives
  - (ii) Functional foods
  - (iii) Ultra Heat Treated products. 4
- (b) Explain the function of each of the following ingredients when making a cake:
- (i) Sugar
  - (ii) Flour. 4
- (c) Explain the role of an Environmental Health Officer when enforcing food safety. 2

[END OF QUESTION PAPER]

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