National
Qualifications
2019

X836/76/11

Health and Food Technology

WEDNESDAY, 22 MAY
1:00 PM – 3:00 PM

Total marks — 60

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.

MARKS

Total marks — 60

Attempt ALL questions

Question 1

(a) Explain **four** factors which may contribute to childhood obesity. **4**

(b) Explain how each of the following steps taken by an after-school club could prevent food poisoning when preparing snacks. **3**

(i) Staff training

(ii) Purchasing ingredients from reputable suppliers

(c) An after-school club aims to meet the nutritional needs of its children.

Table 1 shows the dietary reference values for females 11–14.

Dietary reference values for females aged 11–14 years old				
Estimated average requirements	**Reference nutrient intakes**			
Energy (kcal)	**Vitamin A (µg)**	**Vitamin C (mg)**	**Iron (mg)**	**Fibre (g)**
2032	600	35	14·8	20

The food intake of an 11 year old girl includes the following lunch.

Milkshake

Macaroni cheese

Spinach and rocket salad

Chips

Table 2 shows the dietary analysis of the 11 year old girl's food intake, including the lunch.

Dietary analysis of the 11 year old's food intake				
Energy (kcal)	**Vitamin A (µg)**	**Vitamin C (mg)**	**Iron (mg)**	**Fibre (g)**
1850	450	37	8·5	16

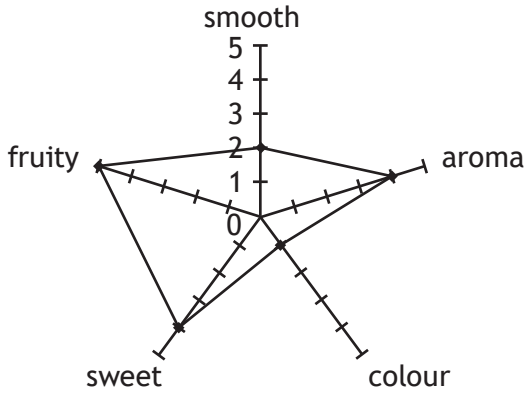
Analyse **three different** aspects of the girl's food intake shown in Table 2, in relation to the dietary reference values for 11–14 year old females shown in Table 1.

For **each** aspect you should include

- a comment on the impact of her food intake in relation to the dietary reference values
- a potential consequence for her health
- a conclusion about the contribution made by her lunch to her food intake. **9**

Question 1 (continued)

(d) The star profile below shows the results of sensory testing of the milkshake.



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

Evaluate the suitability of this milkshake for children. **4**

Question 2

(a) Evaluate the use of cook-chill products for students. **3**

(b) Evaluate the impact a diet high in fruit and vegetables may have on each of the following dietary diseases. **3**

- Bowel disease
- Type 2 diabetes

(c) Explain **two** factors that may hinder the absorption of calcium. **2**

(d) Evaluate the impact of food miles on a consumer's choice of food. **2**

MARKS

Question 3

(a) Explain how a food manufacturer could improve each of the following stages of food product development for a new fish product which failed to meet sales targets. **4**

- Concept screening
- Prototype production
- First production run
- Launch

(b) Evaluate the contribution of oily fish in the diet. **3**

(c) Explain how an Environmental Health Officer can protect the consumer when purchasing food. **3**

Question 4

(a) Evaluate the impact of the following factors on a consumer's choice of food. **4**

- Peer pressure
- Nutritional knowledge
- Available income

(b) Explain how food additives can benefit the consumer. **4**

(c) Explain the role of the Advertising Standards Authority in protecting the consumer. **2**

Question 5

(a) Explain the function of eggs in baked products. **2**

(b) Evaluate each of the following for the consumer. **4**

(i) Fair trade

(ii) Genetically modified foods

(c) Evaluate ways the following meal could help a vegetarian to follow **four** different pieces of current dietary advice. **4**

- Mixed bean and vegetable chilli
- Potato wedges

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