



LEVEL 3 CERTIFICATE/DIPLOMA

4563UB0-1

TUESDAY, 6 JUNE 2023 – AFTERNOON

FOOD SCIENCE AND NUTRITION

Unit 1: Meeting Nutritional Needs of Specific Groups

**1 hour 30 minutes plus 15 minutes reading time
plus your additional time allowance**

Surname _____

First name(s) _____

Centre Number _____

Candidate Number 4 _____

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
Section A	23	
Section B		
1.	6	
2.	9	
3.	6	
4.	8	
Section C		
1.	12	
2.	10	
3.	6	
4.	10	
Total	90	

ADDITIONAL MATERIALS

A calculator.

INSTRUCTIONS TO CANDIDATES

Use black ink, black ball-point pen or your usual method.

Write your name, centre number and candidate number in the spaces provided on the front cover.

Answer ALL questions.

Write your answers in the spaces provided in this booklet. If you run out of space, use the additional page(s) at the back of the booklet, taking care to number the question(s) correctly.

INFORMATION FOR CANDIDATES

The total for the paper is 90 marks.

The number of marks is given in brackets at the end of each question or part-question.

(Turn over)

You are reminded of the necessity for good English and orderly presentation in your answers.

Reading time may be permitted as indicated on the examination paper. This is additional time to the duration of the exam. This time can only be used for reading through the questions on the exam paper, and prioritising your time. However, you may write notes.

Answer ALL questions.

SECTION A

- 1. State THREE key food safety temperatures.**
[3 marks]

(i) _____

(ii) _____

(iii) _____

(Turn over)

2. Name TWO high risk foods. [2 marks]

(i) _____

(ii) _____

3. Describe TWO ways in which food can become contaminated. [4 marks]

(i) _____

(ii) _____

4. Name the TWO groups of simple carbohydrates. [2 marks]

(i)

(ii)

5. State TWO good food sources of complex carbohydrates. [2 marks]

(i) _____

(ii) _____

6. (a) Identify ONE factor which may increase a person's requirement for folate. [1 mark]

(b) Outline the role of folate in the body. [3 marks]

[illegible]

(Turn over)

7. Explain the meaning of the term macronutrients.

[2 marks]

8. Describe the difference between 'nutrient density' and 'energy density' of food. [4 marks]

[illegible]

23

(Turn over)

SECTION B

- 1. Assess the food safety risks associated with the preparation, storage and serving of a range of salads served from a salad bar. [6 marks]**

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(Turn over)

2. (a) Describe the molecular structure of the following.
[4 marks]

You may use diagrams to support your answer.

(i) Monounsaturated fats

(Turn over)

2 (a) (i)

2 (a) (ii)

Trans fats

2 (a) (ii)

2 (b) Suggest ways that manufacturers could adapt products which are high in fat to make them more acceptable to the health-conscious consumer.

[5 marks]

[illegible]

(Turn over)

3. Discuss the role of nutritional labelling when making food choices. [6 marks]

[illegible]

(Turn over)

4. Micronutrients are vital for good health.

Explain the consequences of a diet deficient in micronutrients. [8 marks]

[illegible]

(Turn over)

SECTION C

Read the case study and answer all questions in the space provided.

Ann is a Deputy Head at a large comprehensive school so has limited time when it comes to meal preparation. In her spare time Ann enjoys walking, yoga and Pilates. She has been a lacto-ovo vegetarian for 17 years but having recently read an article about sustainable diets, she has decided to follow a vegan diet.

NAME	Ann	
AGE	51	
WEIGHT	51 kg	
HEIGHT	1.66 m	
DIARY OF A TYPICAL DAY	TIME	ACTIVITY
	6.00 am	Wakes up
	6.15 am	Breakfast
	6.45 am	Drives to school
	7.30 am	Arrives at school
	11.00 am	Morning break – walks around school on duty
	11.00 am – 12.20 pm	Teaching
	12.20 pm – 1.00 pm	Lunch break – eats at her desk
	1.00 pm – 3.20 pm	Work in office/classroom observations
	3.20 pm – 5.00 pm	Senior leaders meeting
	5.00 pm – 6.00 pm	Work in office
	6.00 pm – 6.45 pm	Drives to Pilates class
	7.45 pm	Returns home
	8.15 pm	Evening meal
	10.30 pm – 11.00 pm	Goes to bed

(Turn over)

EXAMPLE OF CURRENT DAILY DIET	Breakfast:	Poached egg and avocado on wholemeal toast Cup of tea Cup of coffee with skimmed milk Wholemeal pitta bread; sticks of carrot/ celery/peppers with hummus Glass of sparkling water Cup of tea with a chocolate and fruit flapjack Goat's cheese and beetroot salad with mixed grains Glass of red wine
	Morning break:	
	Lunch:	
	Snack:	
	Evening meal:	

(Turn over)

Section C

- 1. Analyse Ann's profile to determine her current and future nutritional needs. [12 marks]**
- 2. Assess the impact of veganism on Ann's health and well-being. [10 marks]**
- 3. Suggest a new daily diet to take into account Ann's decision to become a vegan. [6 marks]**
- 4. Justify the daily diet that you have suggested, in relation to fitness for purpose. [10 marks]**

(Turn over)

END OF PAPER

Question number	Additional page, if required. Write the question numbers in the left-hand margin.

(Turn over)

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