



LEVEL 3 CERTIFICATE/DIPLOMA

4563UB0-1

TUESDAY, 4 JUNE 2024 – AFTERNOON

FOOD SCIENCE AND NUTRITION

Unit 1: Meeting Nutritional Needs of Specific Groups

1 hour 30 minutes 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.	9	
2.	8	
3.	6	
4.	6	
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.

(Turn over)

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.

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 (a) Give TWO ways in which the Food Safety Act protects the consumer. [2 marks]

(i) _____

(ii) _____

(Turn over)

1 (b) State the year the Food Safety Act became law.

[1 mark]

(c) Name ONE other piece of food safety legislation.

[1 mark]

2 (a) Name TWO food allergens. [2 marks]

(i) _____

(ii) _____

(b) Give TWO symptoms of a food allergy. [2 marks]

(i) _____

(ii) _____

3. Define what is meant by malnutrition. [2 marks]

4. Name TWO micro-nutrients that may be lacking in a plant-based diet. [2 marks]

(i)

(ii)

(Turn over)

5. Outline the difference between fat-soluble and water-soluble vitamins. [2 marks]

[illegible]

6 (a) Name ONE good food source of folate. [1 mark]

(b) State why folate is needed during pregnancy. [1 mark]

7. Describe how antioxidants may help prevent cardiovascular disease (CVD) and some types of cancer. [3 marks]

[illegible]

- 8. Explain why protein foods can be either of high biological value (HBV) or low biological value (LBV). [4 mark]**

[illegible]

SECTION B

- 1. Cross-contamination is a significant risk when it comes to food safety.**

Describe how the risk of cross-contamination can be reduced when preparing, cooking and serving food. [9 marks]

(Turn over)

- 2. Every function and process in the human body requires energy.**

Explain how the human body obtains and uses energy. [8 marks]

[illegible]

3 (a) Describe the function of sodium in the body.

[2 marks]

3 (b) People with high blood pressure are advised to reduce their sodium intake. Suggest ways this could be achieved. [4 marks]

[illegible]

(Turn over)

- 4. Following a weekly meal plan ensures that a nutritionally balanced diet is maintained.**

Evaluate this statement. [6 marks]

[illegible]

(Turn over)

SECTION C

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

- 1. Analyse Dylan's profile to determine his current and future nutritional needs. [12 marks]**

- 2. Discuss the importance of establishing good eating habits with Dylan from an early age. [10 marks]**

- 3. Plan a suitable Saturday meal plan for Dylan. [6 marks]**

- 4. Justify your Saturday meal plan, in relation to fitness for purpose. [10 marks]**

(Turn over)

END OF PAPER

(Turn over)

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

(Turn over)

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DYLAN’S PROFILE

Dylan is 3 years old. He is of average height and is a healthy weight for his age. He currently attends nursery full time where he is in the pre-school group. At nursery he participates in a range of classroom-based activities. At the weekends, he attends football skills training on a Saturday morning for 45 minutes and has a 30-minute swimming lesson in the afternoon.

Diary of a typical weekday at nursery		Diary of a typical Saturday	
Time	Activity	Time	Activity
6.45 am	Get up	7.00 am	Get up
7.50 am	Arrive at nursery	8.00 am	Breakfast
8.00 am	Breakfast	9.00 am	Indoor play
9.00 am	Class activities	10.30 am	Football
10.45 am	Morning snack	12:30 pm	Lunch
11.00 am	Outdoor activities	1:30 pm	Outdoor play
12.00 pm	Lunch	3.30 pm	Swimming lessons
12.30 pm	Class activities	5.00 pm	Tea
3.45 – 4.30 pm	Tea	6.00 pm	Bath/play
4.30 pm	Story time	6.30 pm	Drink and bedtime story
5.20 pm	Arrive home	7.00 pm	Bed
6.00 pm	Play		
6.30 pm	Bath/bedtime snack/story		
7.00 pm	Bed		
Example of a weekday menu plan at nursery			
Breakfast:	Weetabix Whole milk Fruit juice		
Snacks:	Glass of milk Satsuma Banana Raisins Grapes		
Lunch:	Fish finger pie (fish fingers, baked beans, topped with mashed potato, sprinkled with cheese) Water		
Tea:	Sausage, tomato, broccoli and noodle bake Water		