

Surname	Centre Number	Candidate Number
First name(s)		4



LEVEL 3 CERTIFICATE/DIPLOMA

4563UB0-1



S25-4563UB0-1

TUESDAY, 3 JUNE 2025 – AFTERNOON

FOOD SCIENCE AND NUTRITION

Unit 1: Meeting Nutritional Needs of Specific Groups

1 hour 30 minutes plus 15 minutes reading time

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
Section A	24	
Section B		
1.	8	
2.	8	
3.	6	
4.	6	
Section C		
1.	10	
2.	12	
3.	6	
4.	10	
Total	90	

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

Write your name, centre number and candidate number in the spaces at the top of this page.

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.

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.



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Answer **all** questions.

Section A

1. (a) State **three** different causes of food spoilage. [3]

(i)

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(ii)

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(iii)

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- (b) Identify **one** consequence of food spoilage. [1]

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2. (a) Name the food safety management system used by a food business.

[1]

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(b) Describe why a food business needs to have a food safety management system in place.

[3]

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3. (a) Name **two** good food sources of Omega 3 fatty acids. [2]

(i)

(ii)

(b) State why it is necessary to obtain Omega 3 fatty acids from a food source. [1]

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(c) Give **one** function of Omega 3 fatty acids in the body. [1]

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4. (a) Discuss the complementary interaction between any **two** named micronutrients. [3]

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(b) Outline an example of a negative interaction between micronutrients. [2]

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5. List **two** factors which may affect an individual's nutritional requirements. [2]

(i)

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(ii)

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6. (a) Explain how ascorbic acid loss can be reduced when preparing and cooking vegetables. [3]

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(b) Name **two** methods of preservation that would destroy ascorbic acid. [2]

(i)

(ii)



1. Good personal hygiene is critical when working in the food industry.

[8]

[illegible]



2. (a) Describe the chemical composition of protein.

[4]

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(b) Explain how protein foods are classified.

[4]

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3. Examine the menu below.

Cream of mushroom soup with croutons
Vegetable Lasagne, mixed green salad, baked sweet potato
Carrot cake with cream cheese frosting

Explain why the menu above would not be suitable for a coeliac or an individual who is lactose intolerant.

(i) A coeliac

[3]

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(ii) An individual who is lactose intolerant

[3]

Examiner
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- Assess the nutritional impact of this lifestyle choice when planning a balanced diet.

[6]



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Section C – can be found on page 14



Section C

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

Martin lives on his own and has recently retired from his job as a lorry driver. He suffers with leg ulcers and is asthmatic. He enjoys working in his garden, completing crosswords, watching motorsport, quiz shows and films.

Name	Martin	
Age	67	
Weight	152.4 kg	
Height	1.78 m	
	Time	
Diary of a typical day	9.30 am	Get up/Breakfast.
	10.00 am	Drive to the local town for shopping.
	11.00 am	Stop for morning coffee.
	1.00 pm	Eat lunch – completes the crossword.
	2.00pm	Work in the garden.
	4.00pm	Watch quiz shows on television.
	7.30 pm	Eat evening meal.
	8.00 pm	Watch television.
	10.00 pm	Eat evening snack whilst watching a late-night film.
	12.30 am	Goes to bed.
Example of current daily diet	Breakfast:	Bowl of Shreddies, 2 tsp sugar, full fat milk Cup of coffee made with full fat milk and 2 tsp sugar
	Morning break:	Cup of coffee made with full fat milk 2 tsp sugar, two digestive biscuits
	Lunch:	Cheese & pickle sandwiches made from four slices of white sliced bread & butter, mature cheddar cheese and pickle Packet of crisps Sausage roll Pint of orange squash
	Mid-afternoon:	Pint of orange squash Handful of sweets
	Evening meal:	Two beefburgers, hash browns, baked beans, slice of white bread & butter Tinned peaches with ready-made custard
	Evening snack:	Can of lager Packet of salted peanuts









END OF PAPER



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