



Cambridge IGCSE™

CANDIDATE NAME



CENTRE NUMBER

--	--	--	--	--

CANDIDATE NUMBER

--	--	--	--



FOOD & NUTRITION

0648/13

Paper 1 Theory

October/November 2024

2 hours

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

- Section A: answer **all** questions.
- Section B: answer **all** questions.
- Section C: answer **one** question.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.

INFORMATION

- The total mark for this paper is 100.
- The number of marks for each question or part question is shown in brackets [].

This document has 12 pages.





Section A

Answer **all** questions.

You are advised to spend no longer than 45 minutes on Section A.

1 Define the term *balanced diet*.

.....
..... [2]

2 Undernutrition is when the body has an insufficient amount of nutrients.

(a) Identify **one** disease that results from an insufficient amount of vitamin B₁₂ (cobalamin).

..... [1]

(b) Name **four** different sources of vitamin B₁₂ that are suitable for vegetarians.

1
2
3
4 [4]

[Total: 5]

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN





DO NOT WRITE IN THIS MARGIN

3 Sugar is found in many different foods.

(a) Name **one** food that contains fructose.

..... [1]

(b) Name **one** food that contains lactose.

..... [1]

(c) Describe the effects of dry heat on sugar.

.....
.....
.....
.....
.....
.....
..... [4]

[Total: 6]

4 Vitamin A is found in food as retinol or beta-carotene.

Name **four** different good sources of beta-carotene.

1
2
3
4 [4]

5 (a) State the function of maltase in the digestive system.

.....
..... [2]

(b) State where in the digestive system maltase is found.

..... [1]

[Total: 3]





6 Carbohydrate provides the body with energy.

(a) Name **two** other nutrients that provide energy.

1

2 [2]

(b) (i) State what is meant by energy balance.

..... [1]

(ii) State how to achieve energy balance.

..... [1]

(c) State **one** unit used to measure energy in food.

..... [1]

(d) State **four** different factors that affect a person's energy requirements.

1

2

3

4 [4]

[Total: 9]

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN





DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

7 Explain the importance of iodide in the diet.

.....

.....

.....

..... [3]

8 Current dietary advice is to drink at least two litres of water a day. One reason for this advice is because water improves the absorption of water-soluble vitamins.

(a) Name **three** different water-soluble vitamins.

1

2

3 [3]

(b) Give **five** other different reasons for drinking at least two litres of water a day.

1

2

3

4

5 [5]

[Total: 8]





Section B

Answer **all** questions.

9 Shortcrust pastry is made using plain flour, fat, water and salt.

(a) State and explain **two** functions of the plain flour when making shortcrust pastry.

1

.....

2

.....

[4]

(b) State and explain **two** functions of the fat when making shortcrust pastry.

1

.....

2

.....

[4]

(c) Sometimes faults occur during the making of shortcrust pastry products.

(i) State **four** reasons why the shortcrust pastry may be soft and crumbly.

1

2

3

4

[4]

(ii) State **four** reasons why the shortcrust pastry may be hard and tough.

1

2

3

4

[4]

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN





(d) There are many ways in which shortcrust pastry can be given extra flavour.

Suggest **three** different seeds that could be used to flavour shortcrust pastry.

- 1
- 2
- 3

[3]

[Total: 19]

10 Eggs are used in a wide variety of dishes and have many functions.

(a) Complete the table to name **two** different dishes for each function of eggs.

function of eggs	name of dish
coating	1
	2
aeration	1
	2

[4]

(b) State **two** other functions of eggs in food preparation.

- 1
- 2

[2]

[Total: 6]



DO NOT WRITE IN THIS MARGIN



11 Freezing is a popular method of preservation.

(a) Explain how freezing preserves food.

.....

.....

.....

.....

.....

..... [4]

(b) Some foods, such as whole tomatoes, do **not** freeze successfully.

Explain why freezing would **not** be a suitable preservation method for a whole tomato.

.....

.....

..... [2]

(c) State **two** alternative methods for preserving tomatoes.

1

2

[2]

[Total: 8]

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN





12 Food additives are used in many convenience foods.

State **five** benefits of using emulsifiers in convenience foods.

- 1
-
- 2
-
- 3
-
- 4
-
- 5
-

[5]

13 (a) Explain **two** benefits to the consumer of the manufacturer's contact details on a food label.

- 1
-
- 2
-

[2]

(b) Name **three** details on a food label that ensure the food product can be safely consumed.

- 1
- 2
- 3

[3]

(c) Manufacturers often use tamper-evident seals on packaging.

State **two** methods that may be used to help consumers be aware that a food product has **not** been contaminated or misused.

- 1
- 2

[2]

[Total: 7]

[Turn over



DO NOT WRITE IN THIS MARGIN



Section C

Answer either Question 14 or 15.

14 Some countries recommend eating at least five portions of fruit and vegetables a day.

- Discuss nutritional reasons for including fruit and vegetables in the diet.
- Discuss other reasons for including fruit and vegetables in the diet.

[15]

OR

15 Chicken is a popular commodity to include in family meals.

- Discuss guidelines to follow when buying and storing fresh chicken to use the next day.
- Discuss methods of tenderising chicken before it is cooked and describe the changes that occur during cooking.

[15]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN





Area with horizontal dotted lines for writing.

DO NOT WRITE IN THIS MARGIN





Area with horizontal dotted lines for writing.

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

DO NOT WRITE IN THIS MARGIN

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.

