



Cambridge IGCSE™

CANDIDATE
NAME

CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--



FOOD & NUTRITION

0648/12

Paper 1 Theory

October/November 2023

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. Any blank pages are indicated.

Section A

Answer **all** questions.

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

- 1 (a) Name the deficiency disease associated with a lack of vitamin A.

..... [1]

- (b) Complete the table by naming **four** other different deficiency diseases and identifying the nutrient that is in poor supply for each.

deficiency disease	nutrient in poor supply

[8]

[Total: 9]

- 2 Name **one** plant food that is a good source of high biological value (HBV) protein.

..... [1]

- 3 (a) State **three** possible effects on the body of eating too little carbohydrate.

1

2

3

[3]

- (b) State **one** reason why B-group vitamins should be eaten with carbohydrate food.

..... [1]

- (c) Potatoes are a good source of vitamin B₁ (thiamin).

Name **three** other different plant foods that provide vitamin B₁.

1

2

3

[3]

[Total: 7]

4 State **four** ways that Dietary Reference Values (DRVs) are useful when planning meals.

- 1
- 2
- 3
- 4 [4]

5 Making cheese is a method of preserving milk.

(a) Name **two** minerals that are found in cheese.

- 1
- 2 [2]

(b) Name **one** vitamin that is found in cheese.

..... [1]

(c) Name **one** nutrient that is **not** found in cheese.

..... [1]

(d) Name the enzyme used to set cheese.

..... [1]

[Total: 5]

6 The recommended daily intake of salt is 3–6g.

State **three** ways consuming too much salt can affect health.

- 1
- 2
- 3 [3]

7 Name **two** enzymes in the ileum that are involved in the digestion of starch.

- 1
- 2 [2]

8 State **three** reasons why active teenage boys are recommended to follow each of the following dietary guidelines.

(a) Eat a diet high in protein.

reason 1

.....

reason 2

.....

reason 3

.....

[3]

(b) Drink lots of water.

reason 1

.....

reason 2

.....

reason 3

.....

[3]

(c) Eat a diet high in calcium.

reason 1

.....

reason 2

.....

reason 3

.....

[3]

[Total: 9]

Section B

Answer **all** questions.

9 When making a cake by the melting method, fat, syrup and sugar are heated and then added to dry ingredients.

(a) Name **four** types of sugar that can be used when making a cake by the melting method.

- 1
- 2
- 3
- 4 [4]

(b) State **five** functions of sugar in a cake recipe.

- 1
- 2
- 3
- 4
- 5 [5]

(c) State **one** function of sugar in the body.

..... [1]

(d) State **two** health problems that may be caused by too high an intake of sugar.

- 1
- 2 [2]

(e) Melted mixtures usually produce a cake with a dense texture.

Name **one** mechanical and **one** chemical method of lightening a cake made by the melting method.

mechanical

chemical [2]

[Total: 14]

10 It is important to use correct proportions when making a white roux sauce.

(a) Complete the ingredients list for making a white roux sauce that is suitable for coating.

25 g plain flour
..... g butter
250 ml

[2]

(b) Identify **one** ingredient in the sauce that is unsuitable for a coeliac.

..... [1]

(c) Give **four** qualities of a successful white roux sauce.

- 1
- 2
- 3
- 4

[4]

(d) Describe how the sauce thickens during cooking.

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

(e) Many ready-made sauces contain additives.

State **two** reasons why each of the following types of additives are used in ready-made sauces.

(i) flavours

- 1
- 2 [2]

(ii) colours

- 1
- 2 [2]

[Total: 15]

11 Food poisoning can be caused by cross-contamination.

Give **three** different examples of how cross-contamination can occur.

- 1
- 2
- 3 [3]

12 Using a pressure cooker is one method of cooking that minimises loss of nutrients.

(a) Name **two** other methods of cooking that minimise loss of nutrients.

1

2

[2]

(b) Explain the principles involved in pressure cooking.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

[5]

[Total: 7]

13 Explain **two** benefits to the consumer of each of the following pieces of information that can be found on a food label.

(a) product name or description

1

2

[2]

(b) cooking instructions

1

2

[2]

(c) country of origin

1

2

[2]

[Total: 6]

BLANK PAGE

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.