Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

8899050643

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.

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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 B_1 (thiamin).

Name **three** other different plant foods that provide vitamin B_1.

1 .....

2 .....

3 .....

[3]

[Total: 7]

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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 3–6 g.

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]

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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]

Section C

Answer **either** Question 14 **or** 15.

14 Fats and oils are an important commodity.
- Discuss the chemical composition of different types of fats and oils.
- Discuss the functions of fats and oils in the body.

[15]

OR

15 Discuss methods of reducing or conserving fuel energy when cooking family meals.

[15]

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